HISTORY OF THE SIGNAL SECURITY AGENCY
VOLUME ONE
ORGANIZATION
PART I
1939 - 1945

Declassified and approved for release by NSA on 07-13-2015 pursuant to E.O. 13526
HISTORY OF THE SIGNAL SECURITY AGENCY
VOLUME ONE
ORGANIZATION
Part I
1939 - 1945

Prepared under the Direction of the
CHIEF, ARMY SECURITY AGENCY
CSGAS-13
13 April 1948
TOP-SECRET

TOP SECRET
Volume One (Organization) of the History of the Signal Security Agency relates the story of the development of the Agency in World War II (1939 – 1945). In order that the reader might have a better understanding of the period under discussion, however, it was decided at the time this volume was planned to introduce the main body of the text with an introductory chapter on the origin of the Signal Intelligence Service and its development prior to World War II. Chapter I therefore begins with the year 1917.

Because of its bulk, volume One is issued in two parts. Part I includes chapters I to V. The first of these five chapters, the purpose of which is to give a brief account of the background and origin of the Signal Intelligence Service, is introductory in nature. The other four chapters in Part I deal with the expansion of the Signal Intelligence Service in the period between the outbreak of the War in Europe in 1939 to the end of 1942.

The use of letters in connection with page numbers after page 150 was made necessary by the addition of new material to the chapter on Arlington Hall Station after the main body of the text had been typed in final form. Part II of volume One begins with page 151.

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CHAPTER I. THE ORIGINS OF THE SIGNAL SECURITY AGENCY

A. From the Origins to 1917

Strictly speaking, the Signal Security Agency existed only between 1 July 1943 and 15 September 1945, but it was not created ab initio in 1943 nor did it cease to exist in 1945. The organization known in those two years as the Signal Security Agency had really been established in 1930 as the Signal Intelligence Service. This name continued until 1942, in which year a series of reorganizations affected by the Chief Signal Officer resulted in as many different names. The Signal Intelligence Service became successively the Signal Intelligence Division, the Signal Security Branch, and the Signal Security Service, before the name Signal Security Agency was adopted. Finally, in September 1945 the name was once more changed, this time to Army Security Agency, but none of these changes affected the basic directive under which the Agency operated, though the last change was simultaneous with a transfer of the Agency to another place in the chain of command with consequent broadening of power. Essentially, therefore, the present History is the story of a single organization operating throughout World War II, though under different names.

Originally, plans were made to begin the narrative with the earliest known use of cryptography by the United States Army but it was soon seen that the bulk of the record even for the War years was tremendous, and it was decided to segregate the earlier information from that pertaining
strictly to the war itself. Therefore, a three-volume work entitled

The Historical Background of the Signal Security Agency has been

prepared: to this work the reader is referred for a full account of

all cryptographic activity within the Army prior to the year 1939.

It will be necessary, however, to outline briefly the steps leading
to the establishment of the Signal Intelligence Service in 1930, and

its subsequent history to 1939, so that the reader may clearly under-

stand the events which took place during the War.

In the Civil War the United States Army for the first time employed
codes and ciphers on an extensive basis. Both the Signal Corps, newly

founded by Major Albert James Myer, afterwards first Chief Signal

Officer, and the Military Telegraph Corps, organized by Anson Stager

and Thomas T. Eckert to exploit for the benefit of the Federal Govern-

ment the existing facilities of the commercial telegraph companies,

used cryptographic techniques for the protection of their messages.
The Signal Corps assumed responsibility for messages transmitted by
visual signals and by such telegraph lines as it was able to erect
during combat operations; the Military Telegraph Corps confined its

activity to such circuits as used fixed telegraph stations belonging
to the commercial companies.

The cryptographic systems of the Signal Corps were varied but

for the most part did not rise above the elementary form of monoalph-

abetic substitution produced by a cipher disk. The Military Telegraph
Corps employed a routine transposition of plain-text words mixed with a few code words. The Confederates, on the other hand, possessed an intrinsically better system, a polyalphabetic cipher using a Vigenere square, but they handled it so clumsily that when Confederate messages were intercepted by the Federals, solution was frequently reached. The Confederates themselves were unable to solve any intercepted Federal messages.

Following the War, the Military Telegraph Corps was disbanded but the Signal Corps continued to exist. Through the personal efforts of the Chief Signal Officer, particularly during the incumbency of Brigadier General A. W. Greely (1887-1906), a number of codes were compiled for War Department use. The only code compiled between 1865 and 1917 by agencies outside the Signal Corps was the so-called "Cipher of the War Department," issued by the Adjutant General's Office in 1902. While these codes were by no means secure when judged by modern standards, they were probably adequate for their own day. The final code in this series was the War Department Telegraph Code 1915 which was in current use just before and during World War I. It must be admitted, however, that though military cryptography and cryptanalysis had been taught for a few years in the Army Service Schools, the Army embarked on World War I unprepared either in cryptography or cryptanalysis for the tasks facing it.
I. The Origins of the Signal Security Agency

B. World War I

As previous compilations had been accomplished under the personal direction of the Chief Signal Officer, there was in existence no unit regularly charged with code compilation. Nor was there any cryptanalytic unit established or even projected. The Military Intelligence Section of the General Staff, which then as always had a strong interest in cryptographic activity, took the lead in meeting the demands of the emergency and thus emerged a division of responsibility which was to continue until 1920. The Signal Corps ceased to compile codes in Washington, though, as will be seen a little later, it did so in France.

For some months the War Department relied on the volunteer assistance of Colonel George Fabian, a patriotic citizen who operated a research agency known as Riverbank Laboratories, at Geneva, Illinois. Colonel Fabian there maintained, among other activities, a department which had for some years been working on a cryptographic approach to the Shakespeare-Bacon problem, and the workers in that department as early as 1916 turned their attention to military cryptography. Soon they found themselves in a position to aid the Government for at that time none of the Departments had people trained in cryptanalysis. They aided the War Department not only by solving such cryptographed messages as were submitted to them, but also they conducted a vigorous training program for what would now be called Message Center Officers.

1. An honorary title conferred by the Governor of Kentucky.
and Signal Intelligence Officers. In the fall of 1917, however, the Military Intelligence Section, General Staff, through its Chief, Colonel Ralph H. Van Dorn, organized the Cipher Bureau in Washington. The first director of this Bureau was First Lieutenant (afterwards Major) Herbert O. Yardley, who for some years had been a code clerk in the employ of the State Department.

The Cipher Bureau, known colloquially as MI-8, grew to a maximum strength of 161 persons, of whom 18 were officers, the remainder being civilians. MI-8 was divided into five subsections:

1. Code Compilation.—This unit, under the direction of Captain A. E. Prince, attempted to remedy the inadequacy of the War Department Telegraph Code 1915 by compiling secure cipher tables for use with it. It also compiled two Military Intelligence codes (Nos. 5 and 9), a code for military attaches (the so-called “Ideal Correspondence Code”), two codes for transmitting French place names, and a casualty code.

2. Communications.—This unit, under the direction of Captain James E. McKenna, was responsible for the encoding and decoding of all Military Intelligence messages.

3. Secret Ink.—Two secret ink laboratories were established, one (directed by Captain E. K. Carver) was in New York; the other (directed by First Lieutenant A. J. McSorley) was in Washington. Both examined large quantities of documents suspected of containing secret ink messages and both were successful in developing a considerable number of such messages.

4. Shorthand.—A unit was organized in New York for the processing of shorthand documents. This was directed by a civilian, Mr. F. W. Allen, who served without pay and for a time paid the expenses of his office.

5. Solution.—This unit, probably the largest of the subsections of MI-8, successfully solved a large volume of diplomatic traffic, chiefly German, Mexican, Spanish, and Latin-American.
Meanwhile, in France, there were established three organizations which performed functions roughly analogous to those of the Signal Security Agency. These were:

1. **The Code Compilation Section, Signal Corps.**—This unit, of which Captain Howard R. Barnes was Officer in Charge, compiled a number of small codes for use in combat operations, one large staff code, and a casualty code, in addition to some other codes of minor importance. The codes were printed at the Adjutant General's Printing Press and were first distributed through the Adjutant General's Department, but the task of distribution was afterwards assumed by the General Staff.

2. **The Radio Intelligence Section, General Staff.**—This unit, of which Lieutenant Colonel Frank Moorman was Officer in Charge, was successful in attempts to solve German codes and ciphers used in combat operations. It also made use of the services provided by the Radio Intelligence Section, Signal Corps.

3. **The Radio Intelligence Section, Signal Corps.**—This unit functioned chiefly by providing intercept and goniometric services for the use of the Radio Intelligence Section, General Staff.

As it will be readily seen from the foregoing account, World War I was marked, so far as cryptological activity is concerned, by a division of responsibility. Some of the necessary functions were performed by the Military Intelligence Division, others by the Signal Corps, and still others by the Adjutant General's Department. That this diversity of responsibility was a mistake was not immediately realized—during a relatively short war the disadvantages of the arrangement had hardly had time to make themselves apparent—and, unfortunately, no attempt was made to unify responsibility.
C. The Decade 1920-1929

Indeed, the division of responsibility was not only allowed to continue but in 1921 it was officially established as policy. (During the war it had merely grown up as a response to an emergency.) The Military Intelligence Division had been that Army organization which had come nearest to performing all of the cryptological operations, but it was now to give up compilation entirely to the Signal Corps, and printing, storage and issue to the Adjutant General's Department, retaining for itself only solution. Indeed, the establishment of the policy in 1921 was largely a formulation in writing of the status quo.

After demobilization of the three units in France, plans were laid for the continuation of ML-8 on a civilian basis in peace time. Yardley, by now a civilian with a commission in the Military Intelligence Reserve, was continued as Director, and the unit, greatly diminished in size, was moved to New York, where for the next ten years it enjoyed a clandestine and almost wholly unsupervised existence. Its support was derived from funds supplied jointly by the War and State Departments. The budget for the first year was placed at $100,000 of which the War Department's share was $50,000. Only about $50,000 of this was spent, however, and each successive year the budget declined until for the Fiscal Year 1929 Yardley was expected to maintain his staff for less than $22,000. With this money, he conducted cryptanalytic studies in the diplomatic traffic sent out by a number of foreign governments of which Japan and Mexico were the most important.
I. The Origins of the Signal Security Agency

The chief difficulty which he faced was the problem of obtaining adequate intercepts for his purposes. During the War and for a few years thereafter, the commercial cable companies by secret arrangement had supplied copies of traffic needed, but the illegal nature of this procedure tended to make the companies more and more reluctant to cooperate. Their business also was to some extent reduced by the competition they faced from radio companies. No adequate substitute for this source of material was ever successfully established, though attempts were made from time to time.

A second disadvantage of the arrangement was to be found in the location of the unit in New York, where adequate supervision by War Department officials became increasingly difficult. The Director of the unit spent more and more time in private business enterprises, engaged in no training program, conducted no work in the field of secret inks, and even did less and less work in cryptanalysis. As a result it became desirable that some sort of reorganization take place. This matter became acute when, in 1929, a change in administration in the State Department forced the abandonment of the State Department's share in the project. A decision was reached to amalgamate MC-8 with the Code and Cipher Section of the Office of the Chief Signal Officer, which had existed since 1921, and which was directed by the Signal Corps cryptanalyst, Mr. William F. Friedman.
I. The Origins of the Signal Security Agency

Following a period in 1919 and 1920 when such compilation as was
done by the Signal Corps was carried on by contracts, Mr. Friedman
had been appointed cryptanalyst on 1 January 1921, and with the
assistance of only one clerk-typist, engaged in code compilation,
theoretical cryptanalysis, testing of proposed cryptographic systems
and machinery, preparation of training manuals and conducting of
training courses at Army camps.

II. The Founding of the Signal Intelligence Service

When the Signal Intelligence Service (SIS) was founded in 1930
by the amalgamation of the function of MI-6 (solution) with that of
the Code and Cipher Section (compilation), the tasks of printing,
staking, issuing, and accounting for cryptographic systems were left
with the Adjutant General until 1934. In 1934, therefore, responsi-
bility for all phases of cryptological work was for the first time
unified in a single Army organization.

The newly organized SIS began by taking over the files of MI-6,
but, though offers of employment were made to certain persons at work
in MI-6, none of these offers were accepted. Instead, four young men
(Messrs Frank B. Rowlett, Abraham Sinkov, Solomon Kullback, and John
B. Hunt) were appointed to the staff, and these, together with a few
other persons added from time to time, constituted the personnel of
the SIS of which the director was Mr. William F. Friedman.
OLD TIMERS IN THE AGENCY
Spring, 1944
Left to Right

Seated:
Lieutenant Colonel A. J. McGrail, Chief, Laboratory Branch
Colonel W. Preston Corderman, Chief, Signal Security Agency
Mr. William F. Friedman, Director of Communications Research

Standing:
Mr. Mark Rhodea, Assistant Director of Communications Research
Lieutenant Colonel Solomon Elliback, Chief, Military Cryptanalytic Branch
Mr. John B. Burt, Translator
Captain Edward J. Vogel, Chief, Special Documents Section
Major Frank B. Bowlett, Chief, General Cryptanalytic Branch
Lieutenant Colonel Abraham Sinkov, Chief, Central Bureau, Brisbane
Since except for Mr. Friedman, no one in the SIS had experience in cryptography, it was necessary to embark on a vigorous training program. This program included instruction in cryptography and cryptanalysis given to the staff, preparation of training manuals, and the establishment of the Signal Intelligence School, which was created to train Regular Army officers, Regular Army enlisted men, and Reserve Officers in the various phases of cryptological activity to prepare them for an emergency. In all, nine Regular Army officers were so trained before 1941.

Another activity of the SIS was the compilation of sufficient field codes, as well as other codes for special purposes, to prepare for the emergency. At first, these were prepared by hand methods, but soon experimentation in the use of automatic machinery for this purpose was successful. Machinery was likewise put to good use in developing cryptanalytic techniques. Proposed cryptographic systems were subjected to cryptanalytic study with the result that many systems were demonstrated to be insecure, and incidentally, the staff was given good practice in cryptanalysis. Efforts were directed to the establishment of a secret ink laboratory, a phase of solution which had been entirely neglected by MI-6. Lack of funds prevented the employment of a full-time chemist but an officer of the Military Intelligence Reserve who had formerly directed the MI-6 laboratory in Washington (A. J. McGrail, then a captain) was transferred to the
Signal Reserve. He was able to give limited instruction in secret
ink techniques in summer courses and established a small laboratory
in the Signal Intelligence Service.

Though interception continued for some time to be largely an
unsolved problem, efforts to obtain adequate coverage of diplomatic
traffic, chiefly Japanese, were constant, and whenever adequate
traffic was available, cryptanalytic studies were carried on. Study
of the various languages used by the governments which were thought
to be potential enemies was carried on with profit.

A beginning was made in the development of automatic machinery.
The forerunners of some of the machines which have proved of great
value during the course of World War II were planned and developed
in this period.

The most important problem faced by the Signal Intelligence
Service was, however, the shortage of funds for research purposes.
Throughout the period 1930-1939, economic conditions in the country
at large were reflected in decreased War Department budgets, and
these decreases were felt severely within the Signal Intelligence
Service. Yet in spite of these difficulties, much was accomplished,
and the United States Army faced World War II much better prepared
than it was at the beginning of World War I.
RESTRICTED
CHRONOLOGICAL TABLE OF HEADQUARTERS, ARMY
SECURITY AGENCY AND PREDECESSORS
1929 - 1947

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<td>Mr. William F. Friedman</td>
<td>Note: In 1921 Army code and cipher compilation was consolidated under the Signal Corps. The Code and Cipher Compilation Section, OC SigO, consisting of Mr. Friedman and one assistant, reported in succession to Major J.O. Kauborgne, Chief, Radio Engineering Section, Research and Development Division, OC SigO; to Major P.W. Evans, Chief, Training Section, Personnel Division, OC SigO; and Capt Haskell Allison, OIC, Training Division, OC SigO</td>
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1929 SIGNAL INTELLIGENCE SERVICE
(Signal Intelligence Section, OC SigO )
Dec 1929 - 1942
Code and cipher compilation, solution, and secret inks.

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1934  Code and cipher compilation, solution, secret inks, printing, distribution, and accounting.

1935

1936

1937  Signal Intelligence Section no longer used in reference to SIS after 1937.

1938

1939

1940

1941

1942

Col. S.B. Akin,
OIC, War Plans and Training Division, OCSig0
1932 - 1935

Maj. W.S. Rumbough,
OIC, War Plans and Training Division, OCSig0
1935 - 1937

Maj. Gen. J.O. Mauborgne,
Chief Signal Officer
1937 - 1941

Col. S.B. Akin,
OIC, Signal Intelligence Service, 23 Apr 35 - 22 Apr 38

Maj. W.O. Reeder,
OIC, Signal Intelligence Service, 23 Apr 38 - 24 Jul 39

Col. S.B. Akin,
OIC, Signal Intelligence Service, 25 Jul 39 - 2 May 41

Lt. Col. Rex W. Kinckler
OIC, Signal Intelligence Service, 7

Col. Otis K. Sadler,
Chief, Operations Branch, OCSig0, 12 Aug 41 - 2
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<td>1945</td>
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<td>1947</td>
<td>WDGSS, 27 Sep 45.</td>
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**July 1, 1941 - March 10, 1942**
- Col. W. Preston Corderman, Chief Signal Security Branch, CCSigO; Chief, SSA, ASA; Commanding Officer, Second Signal Service Battalion, 1 Feb 43 - 31 Mar 46.  
- Brig. Gen. Frank E. Stoner, Chief, Army Communications Branch, 25 Feb 42.  
- Col. Harold G. Hayes, Chief, Army Security Agency, 1 Apr 46.  
- Chief, Signal Operating Services, 2 Mar 43; Chief, Army Communications Service, 9 Jul 43 - 14 Sep 45. Period of DUAL CONTROL, 10 Dec 44 - 15 Sep 45.  
- Col. Carter W. Clarke, D/G MIS, 10 Dec 44 - 11 Jun 46.
ADDITIONAL AND SCHOOL SECTOR

- Captain George B. Bryant
- Mrs. Beatrice F. Bryant
- Mr. John B. Bryant
- Mr. Charles B. Bryant

COOK AND BLENDING SECTOR

- Mrs. Mary F. Bryant
- Mrs. Elizabeth B. Bryant
- Mr. John B. Bryant
- Mr. Samuel B. Bryant
- Mrs. Elizabeth B. Bryant

Major Harkins, Admiral
PLAN OF ORGANIZATION
SIGNAL INTELLIGENCE SECTION

OFFICER IN CHARGE
Major Haskell Allison

ADMINISTRATION AND SCHOOL SECTION

Captain Harrod Miller, O.I.C.
Mr. Herrick F. Bearce
Miss Lorraine O. Stephens
Capt. George A. Bicher (student)
Lt. Charles B. Brown (student)

CODE AND CIPHER COMPILATION AND
SOLUTION SECTION

Mr. Wm. F. Freidman In Charge
Mr. Frank B. Rowlett
Mr. Robert O. Ferner
Mr. Lawrence Clark
Mr. John B. Hurt
Mr. Samuel S. Snyder
Mr. Nettie Janssen

(Unclear)
Signal Intelligence (unclear)
Signal Intelligence (unclear)

(NOTE: Retyped for purposes of clarity.)
CHAPTER II. THE OUTBREAK OF THE WAR IN EUROPE

A. The Current Status

At the conclusion of the Fiscal Year 1937 the Signal Intelligence Service, a field service under the Chief Signal Officer though physically located in Washington, was administered by the War Plans and Training Division, under the general direction of Major W. S. Rumbough, the chief of that division. For the Fiscal Year 1938, the service was authorized a total of eleven civilian employees, with a personal budget of $24,350. This authorization marked the first sizable expansion of the organization since its formation in 1930.

On 2 March 1937 the Signal Intelligence Service consisted of two sections only. The Administration and School Section discharged the responsibilities of the Signal Intelligence School; gave the Army Extension Courses in cryptography and cryptanalysis; was custodian of the codes, ciphers, and secret intelligence devices; and handled the administrative duties of the whole service. Captain Harrod G. Miller served as Officer in Charge of this section and as instructor in the Signal Intelligence School. He was assisted by Mr. (now Lieutenant Colonel) Harwick F. Bearce, assistant cryptographic clerk, and Miss Lorraine C. Stephenson (Mrs. Gleason), Junior Stenographer, who had been appointed in January 1936. Captain (now Colonel) George A. Richer

II. The Outbreak of the War in Europe

and First Lieutenant (now Colonel) Charles B. Brown were then students in the Signal Intelligence School.

The Code and Cipher Compilation and Solution Section was directed by Mr. William F. Friedman, who had been in charge of the entire Signal Intelligence Service since its origin. Mr. (now Colonel) Frank B. Rowlett was Mr. Friedman's principal assistant. The other five civilians were Mr. (now Lieutenant Colonel) Lawrence Clark, Mr. John B. Hirt, Mrs. Louise H. Nelson, Mr. Robert O. Farnar, and Mr. Samuel S. Snyder. The last two persons had also been appointed in 1936.

Their duties consisted of the compilation and solution of codes and ciphers; the investigation of code and cipher devices and machines; the detection of secret inks; the preparation of technical documents pertaining to signal intelligence activities; and the giving of assistance to the school section through technical advice and aid to Captain Miller.

On 23 April 1938, the Signal Intelligence Service was established as an independent section in the Office of the Chief Signal Officer and various duties formerly discharged by the War Plans and Training Division were transferred to it. These included the following:

2. Ibid., 7; Organization Chart, SIS, 2 March 1937 (SFSIS 320.3).

3. The other two principal assistants Drs. A. Sinkov and S. Kullback, were at this time respectively in Panama and Hawaii.

4. Organization Chart, 1937; Memorandum for the Executive Officer, OOSigO, p. 7.
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1. Maintains liaison with divisions of the Office of the Chief Signal Officer, with other arms and services, with the Navy Department, the War Department, General Staff and with The Adjutant General on all cryptographic matters, except on those of operation performed by the War Department Message Center.

2. Supervises the operation of the Signal Intelligence School.

3. Prepares, revises, prints all codes, ciphers and publications relating thereto; stores, issues and accounts for all registered secret and confidential codes, ciphers and cipher devices and publications pertaining thereto; coordinates with the Supply Division in the storage and issue of nonsecret and nonconfidential codes, ciphers and cipher devices and publications relating thereto.

4. Coordinates with Research and Development Division in the development of cipher devices, cipher machines and related apparatus, and of special equipment for signal intelligence troops.

5. Supervises and coordinates all signal intelligence activities of the Signal Corps.

6. Prepares literature relating to signal communication security and coordinates with Plant and Traffic Division in maintaining cryptographic security in the cryptographic section of the War Department Message Centers.

This directive represented a considerable expansion in the administrative responsibilities of the Signal Intelligence Service.

An officer of the Regular Army, Major W. G. Reeder, was relieved from duty in the War Plans and Training Division and assigned as Officer in Charge of the Signal Intelligence Service. He had reported to the Chief Signal Officer 2 September 1937, upon his

5. Office Orders No. 31, OCSigO, 23 April 1938 (SPSIJ 320.3) par. 1.
6. Ibid., par. 2.
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return from Hawaii. Major Reader was succeeded by Colonel Spencer B. Akin on 25 July 1939. Upon the assignment of Colonel Akin to overseas duty on 2 May 1941, Lieutenant Colonel Rex W. Minckler was transferred from the Military Intelligence Division to be the Officer in Charge of the Signal Intelligence Service, 7 June 1941.

Captain Harold C. Hayes was Acting Chief of the Signal Intelligence Service during the interim.

On 10 May 1939 the duties assigned to the Chief Signal Officer relating to code and cipher work were expanded to include the following:

a. The development, procurement, storage, issue, and repair of signal, meteorological, and cryptographic equipment and supplies.

b. The preparation, publication, revision, storage, accounting for, and distribution of all codes and ciphers required by the Army, and in time of war the interception of enemy radio and wire traffic, the location of enemy radio stations, the solution of intercepted enemy code and cipher messages, and laboratory arrangements for the employment and detection of secret inks, except such of these duties as he may delegate to unit signal officers.

7. Special Orders No. 139, War Department, 16 June 1937, par. 1;
   Office Orders No. 73, OSSigO, 2 September 1937, par. 1.

8. Par. 19, Special Orders 57, War Department, 10 March 1939, Colonel Akin reported to the Chief Signal Officer, August 1939.

9. Par. 5, Special Orders 96, War Department, 25 April 1941. Colonel Akin went on leave 2 May 1941.

10. SPSIS 201 - Rex W. Minckler.

11. AR No. 105-5, Signal Corps, General Provisions, 10 May 1939, par. 2a, 2c.
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The principal expansion in responsibilities was embodied in the first paragraph which officially recognized the necessity of the development of automatic cryptographic machinery and the success which the Signal Security Service had achieved in that field.

B. Plans for Mobilization

The principal result of the series of European crises in 1938, so far as the War Department was concerned, was to accelerate the plans for mobilization and to prepare for any emergency that might arise. The Signal Intelligence Service was immediately concerned with these plans, for its course of training for the past decade had been designed to meet this situation. See Tab 10.

On 23 September 1938, the Secretary of War directed the Chief Signal Officer to supply information for a long range program for the procurement and training of personnel, and the procurement of equipment for the operation of the Signal Intelligence Service. The Assistant Chief of Staff, G-2, believed that the best information available for military planning was a report of the acts or words of potential enemies and this information was being supplied currently by the Signal Intelligence Service.

Therefore, adequate provisions had to be made to expand the Signal Intelligence Service to meet such situations as might arise under the various color plans. The load of the organization was expected to vary

12. Memorandum for the Adjutant General from the Assistant Chief of Staff, G-2, Subject: Signal Intelligence Service, 23 September 1938, AGO 521.924 (9-39-38) (ret.)
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widely, depending on the effect of the international situation on the
country's national policy of the United States. Plans had to be prepared for
four situations:

1. Under existing conditions;
2. Under conditions in which hostilities or a declaration of
   neutrality by the United States would be imminent;
3. Under conditions in which the United States would be
   enforcing neutrality;
4. Under conditions arising on the outbreak of hostilities
   through the several stages of mobilization. 13

The Adjutant General, through a series of questions to which
the Chief Signal Officer replied on 17 April 1939,14 requested
information from the Chief Signal Officer as to the basis for the neces-
sary expansion of the Signal Intelligence Service in relation to
the principal service furnished by radio intelligence, radio intercept,
cryptanalytic work and translation, and geodetic work.

In time of peace the work of cryptanalysis and translation was
purely a War Department activity, but the Signal Intelligence Service
had to be prepared in time of war to expand and decentralize. 15 This
decentralization and expansion would include not only the expansion of
the Signal Intelligence Service in the Office of the Chief Signal Officer,

13. Ibid., par. 2-3.

14. The Adjutant General to Chief Signal Officer, 24 September 1933,
subject: Signal Intelligence Service (A3 321.924) (9-23-33).

15. 1st Ind., to the Chief Signal Officer, to The Adjutant General,
17 April 1939, par. 2a; to The Adjutant General to the Chief
Signal Officer, 24 September 1933.
but also the organization of a Signal Intelligence Service for
the Army, and for each of the four Armies. In addition, cryptanalytic
and translation units would have to be provided for each of the
overseas departments.16

Of the four basic conditions stated there was no essential
difference between the situation in the first three, so far as
the activities of the Signal Intelligence Service were concerned,
since it was anticipated that additional appropriations would not
be quickly available for expansion. Moreover, the nature of crypt-
analytic work is such that results could not be expected immediately
after commencing work on the traffic of a given nation. Therefore,
it was necessary to conduct operations against the traffic of several
countries long in advance of any possible hostilities.17

In the spring of 1939 operations were already being centered on the
traffic of Mexico,18 Japan, Germany, and Italy in the peacetime organiza-
tion of the Signal Intelligence Service. Two civilian cryptanalysts were
to be maintained in each of the overseas departments by detail from the
Office of the Chief Signal Officer. It was recommended that, if possible,
they should be Reserve officers who could be called to active duty in

16. Ibid.

17. Ibid.

18. The inclusion of Mexico probably reflects the conditions of World
War I when Mexican relations with the United States were critical.
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In case of an emergency, ordinarily they would function under the direction of the Chief Signal Officer, but in the event of hostilities or the imminent of hostilities, they would be available to the commanders of the individual departments for cryptanalytic work. It was assumed that G-2 would provide language officers, or other personnel, for the translation required. 19

The existing organization of Signal Intelligence Service in Washington was considered adequate in form but not in personnel or equipment to carry the current loads. Hence, it was recommended that funds be provided for equipment, supplies, and other purposes, and that one additional officer be assigned to the Office of the Chief Signal Officer, effective 1 July 1940. 20

Though in peacetime all cryptanalysis and translation were performed under the direct control of the Chief Signal Officer, in the event of strained relations or the necessity of enforcing neutrality, this activity would have to be decentralized. To accomplish this, cryptanalytic personnel would be made available to one or more of the commanders of overseas departments. 21

Under the Green Plan, the decentralization would begin with the transfer of a civilian cryptanalyst, who was also a Reserve officer, from the Office of the Chief Signal Officer to each of the headquarters.

19. Ibid., par. 2b.
20. Ibid., par. 2c.
21. Ibid., par. 3a.
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of the First, Third, and Fourth Armies, in advance of mobilization.

Under the Orange Plan, such a cryptanalyst would be sent to the head-
quarters of the Fourth Army. He would carry with him the latest data
likely to be of use and would be available to assist in the organization
of the Signal Intelligence Service of the Army upon mobilization. He
would also perform such cryptanalytic work as was possible for the Army
commander. It was considered essential that the decentralization of
cryptanalysis and translation be accomplished as rapidly as possible after
M-Day. The service would begin to function with the pertinent Army as
soon as it was constituted on M-Day and the services of the other Armies
would begin to function as required.22

The principal mission of the signal intelligence services of the
Armies was to be the solution of low-salinel enemy messages with the aid
of information received from Signal Intelligence Service, GHq. It would
make any information derived from the solution of the messages immediately
available to the Army commander. The Signal Intelligence Service, GHq,
was to be concerned primarily with the solution of enemy cryptographic
systems and with the preparation of cryptographic systems for the field
forces under the control of GHq.23

The Signal Intelligence Service, Office of the Chief Signal Officer,
would continue to function as in the past, operating against the diplo-
matic and other traffic of the enemy and of certain neutrals. It would

22. Ibid., par. 3b.
23. Ibid., Par. 3c.
also assist the Signal Intelligence Service, G-2, in the solution of enemy field cryptographic systems. Both of these headquarters would carry on the investigation of secret inks. Cryptographic systems for the entire Army would be furnished by the Office of the Chief Signal Officer, but on 1/60 the Signal Intelligence Service, G-2, would take over the provision of cryptographic systems for the field forces under its control. 24

The tables of organization drawn up for the various units of the Signal Intelligence Service were more extensive than had been provided in the 1938 revision of the Protective Mobilization Plan. This revision envisaged operations against the communications of a single country, and the prospects of war in both the Atlantic and Pacific areas were already increasing. 25

Under the Augmentation Plan a large number of specially trained personnel for cryptanalytic work in commissioned, civilian, and enlisted status would be required. Such an expansion demanded a well coordinated training program. Training was already in progress for Reserve officers, but it was estimated that 11 Regular Army officers and 74 Reserve officers would be required. At that time there were five Regular Army officers who were graduates of the Signal Intelligence School. Consequently, it was expected that the remaining six of the

24. Ibid., par. 3d.

25. Ibid., par. 4a
required number would be fully trained within six years (two every
two years). Several others were being partially trained by cor-
respondence courses. 26

The Army had to develop cryptanalysts either by training on the
job or through the correspondence courses, since there was no vocation
in civil life paralleling that of cryptanalyst, and, as a result no
reservoir of qualified personnel upon which to draw. The seven crypt-
analysts who were then members of the Signal Intelligence Service in
the Office of the Chief Signal Officer had been trained on the job.
Six of them were Reserve Officers. Of the 17 proposed as additions
to the organization it was expected that the proportion would be
about the same. Therefore, from job training there would be available
for mobilization three trained civilians and 14 officers, of whom six
would be on foreign service and not available for mobilization in the
United States. 27

Therefore, to meet the requirements of the cryptanalytic work,
every Reserve officer would have to be trained by the correspondence,
course method, supplemented by infrequent and short periods of active
duty. Five courses were available for such training, two in cryptography
and three in cryptanalysis. Another 28 course was then being compiled

26. Ibid., Appendix II-E Cryptanalytic Personnel, Training of Reserve
Officers and Enlisted Men in the Signal Intelligence Specialty,
par. 1-2.

27. Ibid., par. 3

28. It was, in fact, not completed until 1942 and the War prevented
the preparation of the others.
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and the preparation of a total of 15 was contemplated. At that time 56 Reserve officers were enrolled in the cryptanalytic courses, distributed as follows:

Cryptanalysis, Part I, 24
Cryptanalysis, Part II, 21
Cryptanalysis, Part III, 11

On 29 January 1937 the Chief Signal Officer authorized the inauguration of special instruction in cryptography and cryptanalysis for selected Signal Corps advance students in the ROTC at the University of Illinois. The first group of Signal Corps students to complete this specialized training was commissioned in June 1939. 29

It was expected that these eight seniors of the University of Illinois would have completed Cryptanalysis, Part I and II by the time they became second lieutenants and that the University would be able to graduate about the same number each year. Therefore, it was obvious that the plan for training Reserve officers would soon provide the estimated number required. The real problem was to push the training to such lengths that the Reserve officers would be able to function with a minimum of delay upon mobilization. The amount of time required for the subcourses in cryptanalysis was necessarily much greater than that required for other military subjects, and it took

29. Ibid., par. 4.

30. Colonel Fred R. Brown to Chief Signal Officer, Subject: Cryptographic Course Instructional Assistance, 26 April 1939, pars. 1-2.
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time to provide the specialized instruction necessary. Consequently, a prerequisite for cryptographic and cryptanalytic specialization was interest in these subjects for their own sakes and a willingness to devote time to the subject.31

Unless, however, the Reserve officers also completed Cryptanalysis, Part III, they would be of little use in solution work, since in much of the training in both cryptanalysis and cryptography statistical methods had come to be of prime importance. Statistical analysis had been greatly facilitated by the tabulating machinery supplied by the International Business Machines Corporation, and it was expected that the Reserve officers would be trained in the use of these machines when ordered to active duty in the Signal Intelligence School. It was considered essential, therefore, that cryptographic Reserve officers should have considerable active duty with the Signal Intelligence School, although the instruction need not consist of formal courses. Reserve officers could attend the School for periods varying from two weeks to three months, as their current civilian vocations permitted. With this modification, the existing system of training Reserve officers would provide an adequate pool of cryptanalytic personnel for mobilization.32

Of the 17 civilian cryptanalysts required for the Signal Intelligence Service, Office of the Chief Signal Officer, three of the

31. Ibid.
32. Ibid., par. 6
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peace-time personnel of the office would continue as civilians upon mobilization. For the other 14 positions those cryptanalytic clerks whose experience was adequate would be promoted. Steps were already being taken for the training of civilians not eligible for reserve commissions. Many patriotic citizens had become interested in cryptography as an avocation. From these it was expected a dozen could be selected, investigated, and trained through the correspondence courses used for Reserve officers. Authority had been granted in February 1939 for such training.  

Enlisted personnel could be trained through an expansion of the Second Signal Service Company. Three enlisted men would serve as instructors in the Signal Intelligence School after its transfer to Fort Monmouth. Six enlisted men would serve as noncommissioned officers in charge of cryptographic security. They could be fully trained in cryptanalysis through the extension courses and at the Signal Intelligence School. In time of peace they could be of great assistance to commanders and signal officers of the departments and corps areas where they were stationed, both in supervising the cryptographic work and in cooperating in the intercept duties of the Second Signal Service Company.  

33. Ibid.  
34. Ibid., 1st Ind. Colonel S. B. Akin to the Commanding General, First Corps Area, Through The Adjutant General, 30 March 1940 (OCSigO 352.9 ABC).  
35. Training of Reserve officers.
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At the approach of an emergency these men would be strategically located, one in each overseas department, one each in the Eighth and Ninth Corps Areas, and the sixth with the detachment at Fort Monmouth. Meanwhile, in time of peace, the quota of six could also be used to replace other Signal Corps enlisted men while the latter attended the Signal Intelligence School. In this way, a pool of trained cryptanalytic clerks could be formed while maintaining trained men, instantly available in time of emergency, on foreign service.

The expanded program made it desirable that the school be moved from Washington to Fort Monmouth, New Jersey because of space limitations in Washington and the extreme secrecy of the operations conducted there. It was contemplated moving the Signal Intelligence School to Fort Monmouth in the Fiscal Year 1941 or at the outbreak of an emergency. But the state of the training of the reserve would not be such that it could function without further specialized training upon mobilization. Therefore, a signal intelligence section would have to be provided for the one Army which mobilized as the covering force. A few men capable of conducting training would be sent to the Signal Intelligence School to augment the instructor personnel. The signal intelligence sections of GHQ and the three

36. Ibid.
37. Ibid., par. 8-9
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Armed forces would be mobilized at Fort Monmouth and the necessary training
would be completed there in the Signal Intelligence School. Upon the
completion of this program the various sections would join their
respective headquarters and the school would continue on a reduced
basis. The men from the Office of the Chief Signal Officer who were
added to the instructor personnel of the school would become a part
of the US Signal Intelligence Service. Those Reserve officers who
were assigned to the Signal Intelligence Service, Office of the Chief
Signal Officer, would be expected to complete their training of the
job.38

The plans for mobilization also proposed an expansion of the
intercept service operated by the Second Signal Service Company, an
organization subordinate to the Signal Intelligence Service.39

Detachments of the Second Signal Service Company in Hawaii
(Station 5) and Panama (Station 4) were already organized, equipped,
and trained to perform both radiogoniometry and intercept work.

Training of the overseas detachments would be continued until radio
intelligence companies could be furnished the departments. After
that, the Second Signal Service Company would discontinue training in
this specialty. The Navy was responsible for long-range radiogoniometry
utilizing fixed installations in overseas areas, but the Army would

38. Ibid., 11.

39. 1st Ind., The Chief Signal Officer to The Adjutant General,
17 April 1939, par. 2a.
undertake short-range goniometry in areas overseas whenever necessary. This function on land properly belonged to the tactical radio intelligence company.40

The existing detachments of the Second Signal Service Company, however, then lacked personnel and equipment sufficient to perform the necessary intercept work against the four countries. In intercept work trained and experienced men are necessary, and high grades and ratings were offered in order that the finest radio operators might be inspired to adopt the service as a lifetime career. Reasons of security also dictated this course, since the return to civil life of men who were aware of the purpose of the work constituted a potential leak of information about the activities of the Signal Intelligence Service.41

It was evident that, upon the outbreak of hostilities, new intercept stations would have to be established near Seattle, Washington and Washington, D. C., and, to operate these stations, it would be necessary to augment the Second Signal Service Company. While in peacetime the Company functioned under the direction of the Chief Signal Officer, it was planned in an emergency to decentralize them in accordance with the color plans. Under the Orange Plan overseas detachments would continue on their previously assigned missions under the control of the Department Commander, undertaking

40. Ibid., par. 5 b
41. Ibid., par. 5c-d.
such additional missions as he desired. Traffic would be scrutinized by the department cryptanalytic personnel and messages appearing important would be forwarded to the War Department by radio in special cipher. As much traffic as possible would be decrypted locally and the translations transmitted to the War Department by radio, while copies of all intercepted material would be forwarded to the War Department by mail. The Chief Signal Officer in turn would furnish the keys to current enemy cryptographic systems to the department commanders. The control of the detachment in the Ninth Corps Area would pass also to the Commanding General of the Fourth Army, and it would function under him in the same way as did the overseas detachments. If the Green Plan was put into effect, only the detachments in the Eighth and Ninth-Corps Areas would be affected; they would pass to the control of the Commanding General, Third Army, and the Commanding General, Fourth Army, respectively.

The Second Signal Service Company was the agency by which radio traffic would be secured for study and solution. Traffic was sent also by mail, courier, and by cable, and in order to obtain adequate coverage, it would be necessary to tap these sources, particularly the cable sources. The Communications Act of 1934 applied penalties to the interception of diplomatic traffic but the Signal Intelligence

42. Ibid., par. 5e-f.
43. Ibid., par. 5d.
Service would be able to ignore the act under the directions issued by the Secretary of War. 44

The Communications Act did, however, prevent the Signal Intelligence Service from securing copies of messages from the cable companies. An attempt of the War Department, in cooperation with the Treasury Department, to secure an amendment to the Act, had been abandoned, because of the opposition of the Federal Communications Commission, and it was now recommended by the Chief Signal Officer that the proposed amendment should be presented again when conditions appeared more favorable for such legislation. 45

Responsibility for attacks upon the low-schelon military communications of the enemy was to be charged to the signal intelligence services of G2 and the Armies, assisted by the War Department. Material for study and solution was to be gathered by radio intelligence companies assigned to the Armies and to G2. The companies also would develop combat information by radiogoniometric study of enemy radio sets and would perform missions of signal counter intelligence by setting up dummy radio nets to deceive the enemy. Using the experience gained in World War I, it was recommended that each Army should be provided with one of these companies, while G2 would have a reserve of four. In addition, one radio intelligence company would be located in the

44. Ibid., par. 6

45. Ibid.
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Panama Department and another in the Hawaiian Department.\footnote{46}

Under the plans for joint action between the Army and Navy, the Army was charged with the surveillance of nonmilitary radio when the President proclaimed the existence of an emergency. The surveillance of commercial radio stations was considered a relatively simple matter and would require no action by the Signal Intelligence Service, but the surveillance of unauthorized radio stations presented a formidable problem which, in 1939, was still being studied.\footnote{47}

By short-wave radio, communication is possible over great distances but detection and location of illicit stations is difficult. Enemy agents within the United States could thus communicate with their homeland or with neutral countries by short-wave radio with impunity, unless an effective organization was provided for the surveillance of unauthorized stations. Control of this activity could best be provided by means of radio intelligence companies provided with an organization and equipment different from those of the tactical radio intelligence companies. The study of the precise organization and equipment of this type of company had yet to be concluded.\footnote{48}

The procedure suggested was to establish one set of three intercept stations along the Pacific Coast, another set of three in the Midwest,

\footnote{46} Ibid., Par. 6a.
\footnote{47} Ibid., Par. 6a.
\footnote{48} Ibid., appendix V, Par 1.
and a third set of three along the East Coast. Three stations are required to make a goniometric location, two to obtain an intersection and one to check it. Each station would operate both intercept and goniometric services. When an unauthorized station was detected, the three goniometric stations would be directed upon it and the set would be located within a definite area. Then the mission of exact location and suppression would be turned over to a radio intelligence company active in the area of the offending station. This company would be equipped with intercept facilities and with short-range goniometers. It would send a detachment to the area indicated and suppress the station when it was more precisely located.49

In order to make this procedure possible, it was essential that all short-wave stations, except those operated by the Army and the Navy, commercial stations which were subject to censorship, and certain amateur radio stations operated under War Department supervision in connection with the aircraft warning service, should be closed by an Executive Order. Any short-wave radio communication by unknown stations would then be unauthorized and could be dealt with accordingly.50

To be effective during the period most dangerous for sabotage and espionage, the organization for surveillance had to be placed in operation at once. It was obvious that this could not be maintained in

49. Ibid., par. 2.
50. Ibid., par. 3.
time of peace, but plans could be made to use existing facilities.

The Federal Communications Commission operated seven intercept
stations for the monitoring of commercial and other radio stations,
three on the Atlantic Seaboard from Boston to Marietta, Georgia;
two in the Midwest; and two on the Pacific Coast. One additional
station in each of the latter two regions would enable these stations
to serve as a nucleus for the wartime requirements.51

The FCC stations were not equipped at that time for the precise
requirements, but they could be so equipped in time of peace to assume
this function in war time. Since some of the FCC personnel at the
monitoring stations were Signal Reserve officers, it would be simple
to organize a radio intelligence company for each of the three areas,
using the Reserve officers as a nucleus. They could be given periods
of active duty in which they could study wartime requirements of Army
surveillance and in which they could locate amateur radio operators
who might be enlisted in an emergency. Thus, an organization could
be prepared for efficient operations in an emergency.52

While these recommendations, if adopted, would be effective for
providing long-range surveillance, the organization of the necessary

51. Ibid.
52. Ibid.
companies for short-range surveillance was more difficult. It was contemplated that interested Signal Reserve Officers could be put into radio intelligence companies of the Organized Reserves. Encouraged to learn their duties by frequent periods of active duty with the First Radio Intelligence Company, they could also contact radio amateurs for service in an emergency. These companies would require the development and procurement of special vehicles with radiogoniometers and intercept equipment adapted to surveillance work. In the event of war, one company would be located in each corps area. 53

It was not expected that the Army should attempt the surveillance of nonmilitary radio until D-Day, since in time of peace the detection of unauthorized radio stations was an FCC function. In addition to the seven fixed monitoring stations used for this purpose the Commission had planned to use mobile direction finders in this service, and it was recommended that these be taken over by the War Department or continue to function under War Department supervision. 54

The immediate requirements for GHQ and one Army at the outbreak of hostilities would consist of two radio intelligence companies for GHQ and one for the Army. In 1939, the First Radio Intelligence Company was already available and two National Guard radio intelligence companies were being organized. It was considered advisable to plan

53. Ibid., par. 4.

54. 1st Ind., Chief Signal Officer to The Adjutant General, 17 April 1939, par. 8b.
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to assign the former to the Army and the latter two to GHQ. All of
these companies would require considerable expansion in wartime,
but their strengths were sufficient to give a cadre of trained men upon
which to build. They already had the critical items of their war
equipment and it was believed that they would fill the immediate require-
ments for GHQ and one Army.55

A radio intelligence company would also be required in each of
the Panama Canal and Hawaiian Departments, not only in the event of
hostilities, but for some time prior to that crisis. Obviously, the
problem of surveillance in these departments would be paramount long
before any hostile incursion might be reasonably expected. It was
recommended that two additional radio intelligence companies be
organized at once to be stationed in the two departments.56

Trained personnel for the radio intelligence companies was not
immediately available but it was believed that, with a moderate amount
of training given after their induction into the service, radio
amateurs could perform the duties in a creditable manner. Further
expansion of ROTC activities in this field was considered neither
essential nor even desirable.57

55. Ibid., par. 9.
56. Ibid., par. 10.
57. Ibid., par. 120.
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The intercept equipment was commercial type radio equipment except for the radiogoniometers, which were critical items. Because of the rapid obsolescence of radio equipment, it was not considered advisable to put radio sets in a war reserve. Since it was impossible at that time to predict the exact nature of intercept equipment which would be required if hostilities occurred, (Instead it was recommended that in peacetime the development of radiogoniometers should be continuous, including those mounted in special vehicles.) The equipment necessary to intercept enemy communications would depend on the type used by the enemy. This policy would enable the Signal Corps to employ the most advanced equipment.

In the combat zone, the interception of wire communications was divided into two classes: interception along the front, and interception in enemy areas well in the rear of the front line. The first objective demanded men with telegraph and telephone experience. Extensive training for this work could not be carried on in peacetime. In the mobilization plans, however, contact with enemy ground troops was not contemplated for several months. Ample time would, therefore, be available in which a wire 'listening in' service could be improvised and trained. It could easily be provided by expanding the mission of the radio intelligence companies. In peacetime they could study and

58. Ibid., p. 12.

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receive training in wire intercept methods. 60

The intercept of enemy wire communications in rear areas was
considered of the utmost importance.

The penetration of these areas by the Cavalry, particularly
the Mechanized Force, will offer tremendous opportunity for action
against wire communication such as the Cavalry used so effectively
during the Civil War. 61

Such an action would include not only listening in on enemy telephone,
telegraph, and teletype circuits, but also the seizure of files of
messages in stations during the raids and any other measures which
would give information to the Army. It was recommended that this
mission should be specifically assigned to the Cavalry in order that
adequate peacetime training might be initiated. In addition the Chief
Signal Officer and the Chief of Cavalry would study jointly the methods
and apparatus necessary for wire intercept based on systems used in
North, Central, and South America, with the ultimate objective of
providing suitable equipment to the Cavalry for wire intercept work. 62

60. Ibid., par. 12 h (1)-(2).
61. Ibid., par. 12 h (3).
62. Ibid.
CHAPTER III. THE EXPANSION OF THE SIGNAL INTELLIGENCE SERVICE 1939-1942

A. The Authorisation for Expansion

The outbreak of the War in Europe on 1 September 1939 brought, of course, a quickening of tempo to the entire War Department, and among the activities which early felt this effect was that of the Signal Intelligence Service. In the preceding April the plan for the peace-time establishment had called for 35 civilians, distributed as follows:

- Administrative Section 2
- Correspondence, Files and Typing Section 4
- Statistical Machinery and Reproduction Section 3
- Compilation, Accounting and Security Section 5
- Code and Cipher Solution Section
  - Japanese Unit 5
  - German Unit 5
  - Italian Unit 5
  - Mexican Unit 6

It was assumed that the practice of detailing Japanese language officers to the Translation and Secret Inks Section for six-month periods of duty would be continued. No Secret Inks personnel would be required in time of peace. Of the translators, two would concentrate on Japanese, two on Italian, Spanish, and German, one on Italian, Spanish, and German, one on Italian, Spanish, and French, and one on German and Russian.

In the overseas departments, six additional cryptanalysts (two for each department) were required—one was already authorized for the Hawaiian Department—and it was planned that the vacancies would

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1. 1st Inf., Chief Signal Officer to The Adjutant General, 17 April 1939, par. 6b.
be filled by appointment of personnel on duty in Washington for a
three-year tour of duty in rotation. The new positions could not,
however, be filled until sufficient cryptanalysts had been appointed
and trained in Washington for this purpose. The personnel needed for
translation in the overseas departments would be provided by G-2
whenever the cryptanalytic personnel were made available to the
Department Commanders by the Chief Signal Officer. 2

In April 1939 the Signal Intelligence Service was authorized
14 civilian employees at annual salaries totalling $35,080. It was
now proposed that the new personnel be appointed gradually over a
period of four years, beginning with the Fiscal Year 1940, as follows: 3

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Actual</th>
<th>Proposed</th>
<th>Salary Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>14</td>
<td>0</td>
<td>$35,080</td>
</tr>
<tr>
<td>1940</td>
<td>14</td>
<td>5</td>
<td>46,300</td>
</tr>
<tr>
<td>1941</td>
<td>19</td>
<td>10</td>
<td>64,360</td>
</tr>
<tr>
<td>1942</td>
<td>294</td>
<td>6</td>
<td>82,300</td>
</tr>
<tr>
<td>1943</td>
<td>35</td>
<td>9</td>
<td>100,500</td>
</tr>
</tbody>
</table>

Other expenditures from the Fiscal Year 1941 to the Fiscal Year
1943 were estimated as follows:

2. Ibid.
3. Ibid., appendix I-B.
4. It was planned to drop one employee at the beginning of the Fiscal
   Years 1942 and 1943; hence, the discrepancy in those figures.
III. The Expansion of the Signal Intelligence Service 40

<table>
<thead>
<tr>
<th>Item</th>
<th>FY-1941</th>
<th>FY-1942</th>
<th>FY-1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental of labor saving machinery</td>
<td>$9,180</td>
<td>$9,180</td>
<td>$9,180</td>
</tr>
<tr>
<td>Office furniture</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Office supplies</td>
<td>1,200</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Printing and binding</td>
<td>13,000</td>
<td>13,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Contingencies</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Transportation</td>
<td>$26,380</td>
<td>$28,410</td>
<td>$29,800</td>
</tr>
</tbody>
</table>

While only one officer would be required in time of peace, 21 would be required during a period of protective mobilization. These included one colonel (Regular Army), and 20 Reserve officers, and it was estimated that 63 civilians would be required in that period. 9

The Augmentation Plan, necessary for the complete mobilization of the Signal Intelligence Service, recommended assignment of 13 additional Reserve officers and a total of 99 civilians.10

These recommendations had been submitted to The Adjutant General for approval, but the situation in Europe gave justification for a

5. This rental included two Printers, one Sorter, two Alphabetic Punchers, and one Reproducer. See volume Eleven (Machine Branch).

6. These expenditures included costs of cards and forms for IBM machines, technical papers, training literature, replacement of current codes and ciphers, and new codes as required.

7. Transportation expenses included movement of four employees to and from foreign service each year, movement on large-scale maneuvers, mileage for officers on code production and SIS work, ciphers and other secret and confidential material, and air mail and registry.

8. See document cited in note 1, appendix I-C.

9. Ibid., appendix II-A.

10. Ibid., appendix II-B.
greater and more immediate expansion of the Signal Intelligence Service than was contemplated in this long-range program. On 11 September 1939 the Chief Signal Officer recommended\(^{11}\) that a total of \(\$58,950\) be made available from the reserve withheld by the Director of the Bureau of the Budget under the item "Signal Service of the Army 1940—Administrative Reserve for Savings and Contingencies." These funds were to be used as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment of additional civilian personnel</td>
<td>$40,650</td>
</tr>
<tr>
<td>Equipment and Supplies</td>
<td>$18,300</td>
</tr>
<tr>
<td>Total</td>
<td>$58,950</td>
</tr>
</tbody>
</table>

This sum would be replaced by a similar sum to be obtained through a deficiency appropriation.\(^{12}\)

To accommodate the increased number of civilians, it was also recommended that 8,000 square feet of floor space on the third floor of the third wing of the Munitions Building be made available. To avoid delays in expansion caused by the necessity of operating under Civil Service Regulations, it was further recommended that action be taken to permit the employment of qualified civilian specialists directly rather than through Civil Service lists. The secret nature

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\(^{11}\) Considering the time necessary for the Signal Intelligence Service to prepare its recommendations to the Chief Signal Officer, the fact that the expansion could be recommended by the Chief Signal Officer in only 11 days after the attack on Poland is significant.

\(^{12}\) The Assistant Chief of Staff, C-6 from the Executive Officer, OCSigO, Subject: Expansion of the Signal Intelligence Service—Funds and Space, 11 September 1939 (OCSigO, 320.3 (S13), par. 1a).
III. The Expansion of the Signal Intelligence Service

The work made it highly desirable that the personnel be obtained in the most expeditious manner from all available sources.\(^{13}\)

The Assistant Chief of Staff, O-4 approved the request for additional funds and space. The amount requested was to be included subsequently as part of the Supplemental Estimate to be submitted to Congress under the deficiencies incurred by the program increasing the Regular Army to 227,000 men. The space requested would be available on 1 November 1939, when the Finance Officer, U. S. Army, vacated the office space he then occupied. The question of the employment of qualified civilian specialists directly, and not necessarily through the Civil Service lists, was to be referred by the Chief Signal Officer to the Civilian Personnel Division, Office of the Secretary of War, which would then present the matter to the Civil Service Commission for decision. Approval was given these recommendations\(^{14}\) by the Secretary of War on 18 September 1939. On the same day the Chief Signal Officer was advised by The Adjutant General that the expansion of the Signal Intelligence Service had been approved and that the Budget Officer for the War Department would request the Bureau of the

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13. Ibid., pars. 1b, 2.

14. Memorandum for the Chief of Staff from the Assistant Chief of Staff, O-4, Subject: Expansion of the Signal Intelligence Service, including release of $58,950 Administrative Reserve, 12 September 1939 (AC 321.924) (9-11-39).
III. The Expansion of the Signal Intelligence Service

Budget to release the necessary funds.\(^{15}\)

On 14 September 1939 the Chief Signal Officer submitted a revised plan for the expansion of the Signal Intelligence Service. The estimates were based on operations from 1 October 1939 to 30 June 1940, the remainder of the current fiscal year. After that period, emergency or regular funds would be secured by suitable budget estimates, and it was requested that the additional funds should be released at once.

These were to be used as follows:

1. Immediate and urgent increase in civilian personnel $44,850
   (One cryptanalyst at $4,200 was required to bring the total additional personnel to 26. The total personnel budget would then be $50,800.)

2. Increase in equipment and office supplies $11,300
   (This included one additional printer.)

3. Additional electrical protective devices $7,000

4. Equipment for a monitoring station near Washington (Possibly to be at Fort Hunt, Virginia) $26,160

5. Increase in equipment for completion of existing monitoring stations $76,095

6. Increase in funds for operations, maintenance, and repairs of monitoring stations $10,000

These recommendations provided for the additional items which had been found necessary since the submission of the original study on 17 April 1939. Even so, the requirements of the Augmentation Plan would not be

\(^{15}\) The Adjutant General to the Chief Signal Officer, Subject: Expansion of the Signal Intelligence Service, including release of $58,950 Administrative Reserve, 18 September 1939 (AG 321.94 (9-11-39)).
The Expansion of the Signal Intelligence Service

met, but as a basis for the expansion of the Signal Intelligence Service to meet its ultimate requirements, the proposals were satisfactory.\textsuperscript{16}

Besides the additional civilian employees required, it was recommended that one more Regular Army officer be assigned as assistant to the Officer in Charge of the Signal Intelligence Service. Eight Reserve officers should be called to active duty for an indefinite period in code and cipher solution work.\textsuperscript{17} The total space required to accommodate the expanded service (8,000 square feet) was not obtainable in the Signal Office, then in the fourth wing, third floor, of the Munitions Building. The space currently occupied by the Signal Intelligence Service was to be turned over to the War Department Message Center for the expansion of the Code Room and Message Center,\textsuperscript{18} and space sought elsewhere.

The proposed monitoring station to be established near Washington was to be located possibly at Fort Hunt, Virginia. A captain or lieutenant would be placed in charge of this station, and the Second Signal Service Company would have to be expanded by the addition of 26 enlisted men. These enlisted men would be provided as an increased allocation to the Signal Corps from the increase of the Army recently.

\textsuperscript{16} Memorandum for the Assistant Chief of Staff, War Plans Division, Thru the Assistant Chief of Staff, G-2, 14 September 1939 (AG 321.924 (9-14-39)).

\textsuperscript{17} Ibid., par. 2a (3)

\textsuperscript{18} Ibid., par 2a (4)
III. The Expansion of the Signal Intelligence Service

directed by Presidential Proclamation. 19

Approving these recommendations of the Chief Signal Officer, the Assistant Chief of Staff, G-2 forwarded them to the Chief of Staff on 23 September 1939. The 26 civilians to be employed were to report for duty by 1 October 1939. One additional Regular Army officer and eight Reserve Officers were required to supervise the work. The Assistant Chief of Staff, G-2 had already increased the allotment of Thomas Act Reserve officers for the Signal Corps: nine were to be called to active duty. Arrangements had also been made to have a building satisfactory for the receiving station available at Fort Hunt, Virginia, and the authorization of the additional enlisted men for the Second Signal Service Company had been approved. 20

A total of $175,405 was required for the expansion of the Signal Intelligence Service, of which $58,950 had already been requested. The sum of $61,450 was still available in the Secretary of War’s reserve and the Administrative Reserve, Signal Service of the Army. The balance required was therefore $25,405. 21

The Budget Officer for the War Department would request the Bureau of the Budget to release $41,050 for immediate use from the Administrative Reserve, Signal Service of the Army, 1940. The Chief of Finance

19. Ibid., par. 2b.

20. Memorandum for the Chief of Staff from the Assistant Chief of Staff, G-2, Subject: Signal Intelligence Service, 23 September 1939, 42 (42, 251, 924 (9-21-39)). See par. 1-3.

21. Ibid., sect. II, par. 4
would make available for immediate use the sum of $50,000 then in an
unallotted status in the reserve of the Secretary of War, Signal
Service of the Army. The balance necessary for the purchase of equip-
ment would not be available for obligation until the total deficiency
of $175,405, required for the expansion, was covered by Congres-
sional appropriations. It was further recommended that the necessary arrange-
ments for the Civil Service exemptions required should be made in col-
laboration with the Assistant Chief of Staff, G-2. On 26 September
1939 the expansion was approved by the Secretary of War, and the Chief
Signal Officer was advised of the authorization on 27 September 1939. 22

On 26 October 1939, however, the Chief Signal Officer proposed
an amendment to the directive of 27 September 1939. It was desired,
as a result of the experience gained in attempting to obtain person-
nel of the required qualifications, to employ personnel in excess of
the 26 authorized, in order that the Signal Intelligence Service would
eventually obtain sufficient qualified personnel. This goal would
be achieved either in conformity with the existing Civil Service rules
or under authorized exemptions therefrom. It was expected that the
general change in the wording of the directive would provide the
flexibility needed to fill the various positions in the most

22. Ibid., sec. III, The Chief Signal Officer from The Adjutant
General, Subject: Signal Intelligence Service, 27 September
1939 (AG 321.924 (9-14-39)).
III. The Expansion of the Signal Intelligence Service

expeditious and effective manner.\textsuperscript{23} This proposal was on 2 November 1939 also approved.\textsuperscript{24}

B. Civilian Expansion

The Chief Signal Officer requested that the 26 additional civilians authorized on 2 November 1939 should be employed without reference to Civil Service rules on the basis of Executive Order No. 8257, 21 September 1939, authorizing excepted appointments to meet a public exigency:

By virtue of and pursuant to the authority vested in me by the provisions of Paragraph Eight of Subdivision Second of Section two of the Civil Service Act (22 Stat. 605, 404), it is hereby ordered that, subject to appropriate non-competitive tests of fitness, the Civil Service Commission is authorized to permit an immediate appointment without regard to the competitive requirements of the Civil Service Rules in any case in which it appears that a public exigency exists which is directly connected with the neutrality of the United States or the preparedness program of the Federal Government. This authority may be used only under most unusual and compelling circumstances, and the person or persons so appointed will not thereby acquire a classified civil service status.\textsuperscript{25}

It was recommended that the President be requested to approve the immediate appointment of not more than 26 persons to the positions specifically authorized on a temporary basis until 30 June 1940.

\textsuperscript{23} Inclosure to Memorandum for the Assistant Chief of Staff for Plans Division from The Acting Chief Signal Officer, Subject: Signal Intelligence Service - Changes in Directive of Sept. 7, 1939 (AG 321.924 (10-26-39)).

\textsuperscript{24} The Adjutant General to the Chief Signal Officer, 531, Signal Intelligence Service - Changes in Directive of Sept. 27, 1939, 2 November 1939 (AG 321.924 (11-2-39)).

\textsuperscript{25} Quoted in Memorandum to the Chief of Staff from the Acting Assistant Chief of Staff, C-2, Subject: Signal Intelligence Service, 26 October 1939 (AG 321.924 (9-14-39)).
III. The Expansion of the Signal Intelligence Service

End of the current fiscal year. While some of these positions were of a clerical nature, most could be filled only by persons who were professionally or by avocation qualified for various forms of code and cipher work. All of the clerical, and some of the professional positions, would be filled by the promotion or transfer of existing Civil Service employees or from rosters supplied by the Civil Service Commission. These positions, however, could not be filled from Civil Service sources. The exigency required that the competitive requirements should be waived under the executive order.

The proposed letter, signed by the Secretary of War, Mr. Harry H. Woodring, was presented to the Presidential Aide, Major General Edwin V. Watson, through whom Presidential approval was obtained. It was decided that the Secretary of War should outline the procedure to be followed. The Secretary instructed his administrative assistant, Mr. John W. Martyn, to make the necessary arrangements with the Chief Signal Officer, through Mr. A. H. Onthank, Director of Personnel, War Department, on 1 November 1939.

Three days later, authority was requested from the Civil Service Commission to appoint a limited number of employees outside of the competitive classified service. Three persons, Research Analytic Specialists, were to be appointed under Executive Order 8257, and

26. Secretary of War to The President, 26 October 1939 AG 321.924 (9-14-39). This letter was signed but not directly presented to the President.

27. Memorandum to Secretary, General Staff by T. Q. Thornton, 1 November 1939 (AG 321.924 (9-14-39)).
23 others were to be appointed under Civil Service Rules, Schedule A, Paragraph IV-B, "in connection with positions, the duties of which are of a quasi-military nature and involve the security of secret or confidential material".

The persons in the first category should possess the following qualifications:

1. They should be Reserve Officers or civilian personal with additional training represented by at least a Master's degree from a recognized institution of learning.

2. They should possess an exceptional reading, writing, and speaking knowledge of the language of certain countries sufficient to reconstruct passages in that foreign language in which portions of the text and wording are missing.

3. They should also possess wide knowledge of political, economic, and social conditions in certain countries, together with a background of knowledge of statesmen and leaders, as well as past and current foreign policy.

4. Finally, they should have had training and experience indicating the possession of inductive or deductive qualities of mind necessary for extremely difficult research tasks.

The persons in the second category would be either Reserve Officers, former enlisted men, or civilians who had undergone specialized training in cryptography and cryptanalysis, in other words, training equivalent to the satisfactory completion of the Extension Courses through Military Cryptanalysis, Part I.

28. Civil Service Commission, Personal Attention Mr. L. A. Moyer from Director of Personnel (War Department) 4 November 1939 (SPSIS 4A-Files of Chief of Personnel Branch).

29. Ibid., A.

30. Ibid., B.
III. The Expansion of the Signal Intelligence Service

The candidates for the 25 positions had already been selected from a list of Reserve officers, former enlisted men of the Signal Corps, and members of the American Cryptogram Association, the only civilian organization known to exist in these fields. The Association had recommended 80 of its members who had submitted answers to questionnaires. Their educational and cryptographic training and experience, as well as their language qualifications, had been carefully evaluated. Those selected were to be employed on a temporary basis until 30 June 1939. It was contemplated that 12 would be selected for permanent employment at that time, since it was necessary that persons of untested qualifications and mental characteristics be subjected to lengthy training in order that their adaptability to the specialized work might be fully ascertained. The selection of the permanent employees would be based on the quality of their work and their demonstrated qualifications during the period of their temporary employment. In the negotiations the total authorization was increased to 27 by the addition of a fourth Research Analyst on 8 November 1939.31

On the same day the appointment of the 27 persons under Schedule A, Subdivision IV, Paragraph 4, to serve until 30 June 1940, was approved by the Civil Service Commission, and it was considered preferable to appoint all of them under this authority rather than

31. Ibid., Civil Service Commission, Attention Mr. L. A. Hower, Executive Director and Chief Examiner from A. H. Outhank, Director of Personnel, 15 Nov 39.
III. The Expansion of the Signal Intelligence Service

under the Executive Order. The pertinent paragraph provided that
the excepted positions in the War Department were those, the duties
of which were of a quasi-military nature and involved the security
of secret or confidential matter, which in the opinion of the Com-
mission could not be filled from registers of eligibles.

Prior to this time the code clerks had been employed from rosters
of Civil Service eligibles who had taken a Civil Service examination,
but there were no special rosters devoted to code and cipher personnel.

When a vacancy occurred, a person qualified for a stenographic or cler-
ical position was given specialized training in code work.

By 22 December 1939, six Cryptographic Specialists had been
appointed. Three of the appointees held commissions in the Signal
Reserve and all had special qualifications. Glenn S. Landig, who
had received his cryptographic training as an enlisted man in the
Panama Canal Department, had recently received an honorable discharge
from the Army. Ralph A. Dutton had attended the Signal School (1937),
and Edward J. Hawkins had some knowledge of Japanese. Leo Rosen was
a graduate of the Massachusetts Institute of Technology and had some

32. L. A. Moyer, Executive Director and Chief Examiner, Civil
Service Commission, to Director of Personnel, War Department, 8
November 1939 (SPSIS-4 - Files of Chief of Personnel Branch).

33. U. S. Civil Service Commission, Civil Service Act and Rules, Stat-
utes, Executive Orders, and Regulations, Amended to 30 November
1941, Washington, 1941. The earlier issue was dated 30 June 1939.

34. William F. Friedman to Michael M. Block, 19 July 1938
(SPSIS-Daily File).
knowledge of Russian. Kenneth D. Miller was qualified for initial
appointment in the Signal Reserve and had a knowledge of Spanish.
Cyrus G. Sturgis, Jr., had a knowledge of German and was qualified
for appointment in the Signal Reserve. Only seven of the total
authorized had been employed. A greater number had not been obtained
because of the time required for the investigations undertaken by
the Federal Bureau of Investigation and the tests and interviews
inaugurated by the Signal Intelligence Service. In addition, the
brief period of employment offered was found to be insufficient
either to attract the most desirable candidates or to give the desir-
ed degree of proficiency. The new personnel would thus be unable to
compete on an equitable basis with the personnel already employed.
Therefore it was thought desirable to extend the period so that the
Signal Intelligence Service could "take care of the needs of a prob-
able future expansion that may result from the present emergency and
its possible aftermath". It was requested that as a result of experience
in the employment of civilians, the authority for the employment of
personnel in the exempted status should be extended to 30 June 1941.36

35. Colonel S. B. Akin to Mr. A. Heath Onthank, Director of Personnel,
War Department, 22 December 1939 (SPSIS-4A-Files of Chief of Person-
nel Branch). Of these only Leo Rosen, now Lieutenant Colonel,
Signal Corps, was on duty with the Signal Security Agency throughout
the War.

36. Mr. A. Heath Onthank from Executive Officer, OCSigO, 5 February
1940 (SPSIS-4A-Files of Chief of Personnel Branch).
The Civil Service Commission approved this proposal on 16 February 1940.  

By the end of the Fiscal Year 1940 the Signal Intelligence Service included 46 civilians, an increase of 30 over the number at work on 12 May 1939. During 1940 applications were received and personnel contacted for enrollment in the extension courses and preliminary training as potential candidates for employment.

By 1 January 1941 the Signal Intelligence Service had been authorized increases in personnel which doubled its strength. This authorization had been granted in the carte blanche approval of the expansion of the Signal Intelligence Service on 2 November 1939. Consequently, it was necessary that modifications be made in the existing Civil Service instructions governing the number of employees and the duration of their employment. It was recommended that the authority permitting temporary employment of persons in the exempt status be extended from 30 June 1941 to 30 June 1943. The number of Research Analysts and Crypto-Specialists were to be increased to eight and the number of Crypto-

37. The Secretary of War, Attention Director of Personnel from L. A. Mayer, Executive Director and Chief Examiner, Civil Service Commission, 16 February 1940 (SPSIS-4A-Files of Chief of Personnel Branch).

38. Memorandum for the Executive Officer from Colonel S. B. Akin, 27 June 1940 (SPSIS - Daily File); Memorandum to the Executive Officer from SIS, 12 May 1939 (SPSIS - Daily File).

39. Mr. A. Heath Othank, Director of Civilian Personnel War Department, from Executive Officer, O6sigO, 11 December 1940 (SPSIS-4A-Files of Chief of Personnel Branch).
graphic Specialists to 56.\(^40\) This recommendation was approved on 9 January 1941.\(^41\)

By 2 April 1941 there were 93 positions authorized with a total potential payroll of $190,660, but the actual strength was 69 persons with a payroll of $140,660. In the middle of that month, further plans for expansion were made. The Research Analytic Specialists were to be increased to 30 and the Cryptographic Specialists to 150.\(^42\)

The Civil Service Commission approved the increase in the number of Research Analytic Specialists to a total of 30 on 24 April 1941; no authority was granted, however, for any change in the conditions of the employment of Cryptographic Specialists. This resulted from a change in the qualifications of the appointees so that they would merely have had specialised training in the two Army Extension Courses in Cryptography. The Commission held that if these persons could perform the duties, those to whom the extension courses were

\(^40\) Ibid., Enclosure (Personnel Branch).

\(^41\) The Secretary of War, Attention: Director of Personnel from L. A' Meyer, Executive Director and Chief Examiner Civil Service Commission, 9 January 1941 (SPSIS-4A - Files of Chief of Personnel Branch).

\(^42\) Routing and Work Sheet to Colonel Stanley from SIS, Subject: Authority for Employment of Additional Personnel, 4-16-41 (SPSIS-4A - Files of Chief, Personnel Branch); The Secretary of War (Attention of Mr. A. H. Onthank, Director of Personnel) from Executive Officer, OC3igO, Subject: Appointments under Schedule A Subdivision, 16 April 1931.
given should be selected from appropriate registers established through
competitive examination.43

The Chief Signal Officer requested that the matter of changing the
conditions of employment of Cryptographic Specialists be reconsidered
since various factors rendered it unwise to employ the prospective
personnel from the Civil Service register. Preference had to be given

to persons who had a college education, with mathematics or the physical
sciences as their major subjects. It was necessary, or at least highly
desirable, that the employee be native-born, of American citizenship,
and free from foreign connections. His parents also had to be either
American-born or at least naturalized citizens. In addition, persons
to whom employment was tendered had to be willing to take the two

extension Courses in advance for an average period of three months.

Finally it was necessary that the personnel be employed as rapidly as
possible.44 On 16 May 1941 the Civil Service Commission approved the

employment of the 150 Cryptographic Specialists on an excepted basis.45

43. The Secretary of War, Attention: Director of Personnel from L. A.
Moyer, Executive Director and Chief Examiner, Civil Service Commiss-
ion, 24 April 1941 (SPSIS-4A-Files of Chief, Personnel Branch).

44. The Secretary of War (Attention of Mr. E. A. Wolitarsky, Office of
the Director of Personnel) from Executive Officer, OCSigO, Subject:
Appointments under Schedule A, Subdivision (5-2-41 (SPSIS-4A-Files
of Chief, Personnel Branch)).

45. The Secretary of War, Attention: Mr. E. A. Wolitarsky, Office
of the Director of Civilian Personnel from L. A. Moyer, Executive
Director and Chief Examiner, 16 May 1941 (SPSIS-4A-Files of Chief,
Personnel Branch).
III. The Expansion of the Signal Intelligence Service

By 10 June 1941, therefore, the civilian authorization had been increased to 130. On that date, however, there were only 78 persons employed, with an annual payroll of £152,860. Three months later, on 24 September 1941, the total number of civilian employees had increased to 99, distributed as follows:

<table>
<thead>
<tr>
<th>Section</th>
<th>Total Civilians</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td>24</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Code Compilation and Distribution</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Solution</td>
<td>65</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>School</td>
<td>79</td>
<td>34</td>
<td>45</td>
</tr>
</tbody>
</table>

On 31 December 1941 there were 121 civilians in the Signal Intelligence Service.

In addition to the initial qualifications required for the employment of civilian personnel, they were also subjected to rigid investigation of their character and loyalty. Persons not possessing these qualifications were relieved. All personnel authorized to perform duties in connection with the secret cryptographic systems of the Army were required to be photographed.

46. Promotion Tables (SPSIS - A4 - Files of Chief, Personnel Branch).

47. RAN, Memorandum for Chief, Army Communications Branch from Lieutenant Colonel R. W. Hinchler, 5 February 1942 (SPSIS 319.1). On the day of the Pearl Harbor attack there had been 109.

48. Memorandum for Assistant Chief of Staff, G-2, from Chief Signal Officer, 22 April 1940 (SPSIS - Daily File).

49. Memorandum for Assistant Chief of Staff, G-2, from Chief Signal Officer, 25 May 1940 (SPSIS - Daily File).
C. The Assignment of Officers

Upon the approval of the recommendation for expansion, 2 November 1939, the Signal Intelligence Service was assigned an additional Regular Army officer and began to evaluate the qualifications of the Reserve officers for active duty. A sufficient number of these had been trained in the Signal Intelligence School either by tours of active duty during the summer or by completion of the Army Extension Courses in Cryptanalysis and Cryptography. In preparing the recommendation for expansion, a list of 39 Reserve officers who had been partially trained in cryptanalysis was compiled. The mobilization assignment of eight of these was to the Signal Intelligence Service, and 10 were to be assigned to the Signal Intelligence School on E-Day.\(^50\)

Under the approved plans for expansion the Signal Intelligence Service was authorized nine Reserve officers to be called to active duty under the Thomason Act. This law, approved 30 August 1935, empowered the President "to call annually, with their consent, upon application to and selection by the War Department, for a period of not more than one year for any one officer", Reserve officers for active duty with the Regular Army in the grade of second lieutenant. The total called to active duty for the entire Army could not exceed 1000 at any one time. The Secretary of War was also authorized to select

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50. Memorandum for the Assistant Chief of Staff, War Plans Division, 14 September 1939 (AG 321.924 (9-14-39)) appendix C.
annually, beginning 1 July 1936, 50 officers to be commissioned in the
Regular Army.\footnote{51}

The Adjutant General requested that the names and pertinent data
of the Regular Army officer to be assigned as Assistant to the Officer
in Charge of the Signal Intelligence Service and of the nine Reserve
officers to be called to active duty be supplied to his office.\footnote{52}

Nevertheless, the plan for calling these Reserve officers to active
duty to undergo further training in cryptography was disapproved,
and it was impossible to call any of them to active duty at that time.

Two of them, Mr. Leo Rosen and Mr. R. A. Dutton, were, however, employed
as civilians, in positions where they could easily be called to active
duty when the occasion arose.\footnote{53}

During the remainder of 1939 and the following year very few
officers were assigned to the Signal Intelligence Service. Captain
George A. Bicher and Captain Harold G. Hayes,\footnote{54} after June 1940,
assisted the Officer in Charge of the organization, and two other
Regular Army officers (Captain Harold Doud and First Lieutenant Earle

\footnote{51. An Act to Amend the National Defense Act, Public Law No. 408,
74th Congress, (H.6250) 30 August 1935, sec. 1, 2.}

\footnote{52. B&W to War Plans and Training Division from Colonel S. B. Akin,
4-10-39 (SPSIS - Daily File).}

\footnote{53. 1st Ind. to Second Lieutenant Joseph J. Marten, Signal Reserve,
from Colonel S. B. Akin, 14 November 1939 (SPSIS - Daily File).}

\footnote{54. Both of these officers, now colonels, served overseas during the
War and later returned to the Signal Security Agency.}
F. Cook, 55 were assigned as students in the Signal Intelligence School in August 1940. In addition, three Reserve officers were called to active duty, and one civilian employee was released from his Civil Service status to return as a Reserve officer. First Lieutenant Joseph J. Martan, 56 who had had two weeks of active duty as a Reserve officer in 1937 and had anticipated being called to active duty in 1939, finally reported to the Chief Signal Officer on 1 March 1940. The former civilian employee, First Lieutenant Leo Rosen, 57 reported as a Reserve officer on 2 October 1940, and Second Lieutenant Vernor G. Aurell, 58 a Japanese specialist and former officer in the Military Intelligence Reserve, reported five days later. One other officer, First Lieutenant Paul W. Albert, 59 Signal Reserve, reported in December. 60

During 1941, 35 officers, including Reserve officers called to active duty, were assigned to the Signal Intelligence Service. The

55. Both these officers, now colonels, served in the Signal Security Agency before going overseas.

56. Major Martan served in signal intelligence activities both at Arlington Hall and overseas.

57. Lieutenant Colonel Rosen served as Chief, Equipment Branch, throughout the War.

58. Lieutenant Colonel Aurell served as Chief, Language Branch, throughout the War.

59. Major Albert served in Australia.

60. Data on all these officers was gleaned from their SPSIS 201 files.
III. The Expansion of the Signal Intelligence Service

The number assigned each month up to 7 December 1941 was as follows:

<table>
<thead>
<tr>
<th>Month</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>3</td>
</tr>
<tr>
<td>February</td>
<td>1</td>
</tr>
<tr>
<td>March</td>
<td>6</td>
</tr>
<tr>
<td>April</td>
<td>3</td>
</tr>
<tr>
<td>May</td>
<td>2</td>
</tr>
<tr>
<td>June</td>
<td>2</td>
</tr>
<tr>
<td>July</td>
<td>3</td>
</tr>
<tr>
<td>August</td>
<td>6</td>
</tr>
<tr>
<td>September</td>
<td>4</td>
</tr>
<tr>
<td>October</td>
<td>3</td>
</tr>
<tr>
<td>November</td>
<td>1</td>
</tr>
<tr>
<td>December</td>
<td>1</td>
</tr>
</tbody>
</table>

Included in this group were three Regular Army officers: Lieutenant Colonel Rex W. Minckler, transferred from the Military Intelligence Division, 7 June 1941; Captain Eric H. F. Svensson, Cavalry, transferred 26 July 1941; and Captain Harold McD. Brown, who was relieved from his command with the detachment of the Second Signal Service Company at Fort Monmouth. Four second lieutenants had been enlisted men with the Second Signal Service Company and were already thoroughly conversant with the work: Second Lieutenants Walter E. Trumble, Oscar Wilder Jr., Robert F. Pope, and Braxton E. Small. Four other employees of the Signal Intelligence Service were called to active duty as Reserve officers: Captain Abraham Sinkov, Captain Solomon

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61. Colonel Minckler served at Arlington Hall Station until 1942, when he became Commanding Officer, Vint Hill Farms Station.

62. Colonel Svensson served with the SIS until November 1942.

63. Colonel Brown served first as Chief, Communications Branch and later overseas.

64. These four all served with the Signal Security Agency or with the Battalion during the war.

65. Throughout the War Colonel Sinkov served with Central Bureau, Brisbane.
III. The Expansion of the Signal Intelligence Service

Kullback, 66 First Lieutenant H. L. Clark, 67 and First Lieutenant Herrick F. Bearce. 68 Two of the other Reserve Officers (Major A. J. McGrail 69 and Captain John B. Mathews) 70 had served periods of active duty during the summer with the Signal Intelligence Service. One, Lieutenant Robert W. Adams, was a former IBM salesman. The remaining officers had been trained in the cryptographic specialty either at the University of Illinois or through extension courses.

The oldest civilian employee of the Agency, Mr. William F. Friedman, who had been Chief, Signal Intelligence Service from its founding until the appointment in August 1935 of a Regular Army Officer in Charge (Major Haskell Allison), and who had remained thereafter as Principal Cryptanalyst, was called to active duty as a lieutenant colonel in December 1940. But serious illness and hospitalization, resulting from over 20 years of arduous work in his field, forced his reversion to inactive status when, in April 1941, the Surgeon General declared him to be permanently physically incapacitated for active service. He nevertheless returned at once to duty in a civilian capacity and throughout the War served as Director of Communications Research, a position he still holds in the Army Security Agency.

66. Colonel Kullback was Chief, Military Cryptanalytic Branch.

67. Lieutenant Colonel Clark served with Central Bureau, Brisbane.

68. Lieutenant Colonel Bearce served at Arlington Hall and overseas.

69. Lieutenant Colonel McGrail served as Chief, Laboratory Branch until his untimely death on 30 April 1943.

70. Lieutenant Colonel Mathews served at Arlington Hall until 1943.
III. The Expansion of the Signal Intelligence Service

The distribution of the officers on 10 October 1941 was as follows: 71

<table>
<thead>
<tr>
<th>Rank</th>
<th>Signal Intelligence Service</th>
<th>Signal Service Company</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Allotted</td>
<td>Actual</td>
</tr>
<tr>
<td>Lieutenant Colonel</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Major</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Captain</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>1st Lieutenants</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>2nd Lieutenants</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

On 5 November 1941, the total number of officers assigned to the Signal Intelligence Service included 7 Regular Army officers and 37 Reserve officers, a total of 44 in all. 72

D. The Expansion of the Training Program

The increase in the number of personnel authorized for the Signal Intelligence Service necessitated changes in the training program, and the prospect of greater expansion called for pre-employment training which would serve not only as a means of giving instruction in signal intelligence activities, but, in addition, would constitute a test of interest and skill in these activities, particularly in cryptography and cryptanalysis. For ten years the Signal Intelligence Service had planned for an emergency, and with that emergency imminent, the means of instruction devised were not only expanded to meet the increased

71. Chart of 10 October 1941 (SPSIS 320.3).
72. Roster of Officers of SI3, 5 November 1941 (SPSIS 210.3).
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73. '.l'be Adjutant. General trcm t.ho Chiet Signal. otticer, Subjact.s
Spacial Authorization tor enrollment. in cryptographic extension
couraoo, 4 Fttbruar1 19;n (SP5IS 352.6) par. l-2.

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officers who would have to be replaced when they were called to active
duty on or before D-Day. Many patriotic civilians were interested in
cryptography and cryptanalysis as avocations and could be trained to
meet the need for replacements. Consequently, authority was requested
to train a limited number of specially selected civilians by means of
the extension courses.74

The Navy Department had requested that certain Naval Reserve
officers specializing in cryptography be permitted to take the Signal
Corps extension courses. While this request first was made for a
specific officer, authority was needed not only to meet this specific
case, but also to train other Naval Reserve officers in the future.75

A third category consisted of personnel in the Signal Corps itself.
A cryptographic specialty for enlisted men of the first three grades,
to which promotion was made by examination, had been established, and
it was essential that candidates for appointment in this specialty
should be permitted to take the extension courses upon the approval
of the Chief Signal Officer.76

The enrollment of these selected civilians and enlisted men in
the subcourses in Military Cryptography and Military Cryptanalysis
was approved on 17 February 1939. Naval Reserve officers were to be

74. Ibid., par. 3.
75. Ibid., par. 4.
76. Ibid., par. 5.
enrolled, provided the War Department was reimbursed for the cost of the material, $5.00 for the several subcourses. Officers desiring to be enrolled were directed to submit their applications through the Navy Department to The Adjutant General. Each application had to be accompanied by a check or money order, if the students were required to pay for the material, or by a statement indicating the Navy Department procurement authority against which the cost should be charged. 77

The increase in registration was rapid. The Annual Report of the Signal Intelligence School for the year ending 30 June 1939 indicated the following status of enrollment and subcourses completed by commissioned and enlisted men of the Regular Army (RA), the National Guard (NG), and the Officers Reserve (OR) and by civilians. 78

The reader should not be misled by the fact that a larger number of persons are credited with having taken more advanced courses than the elementary. In many cases the students would have sufficient knowledge gained from outside experience to enable them to omit the more elementary courses in Cryptography.

77. 1st Ind., The Chief Signal Officer from The Adjutant General, 17 February 1939 (SPSIS 352.6).

78. Army Extension Courses, Annual Report of Subcourse Compilation, Signal Intelligence School, School Year Ending June 30, 1939 (SPSIS 352.6).
### SUBCOURSES COMPLETED

<table>
<thead>
<tr>
<th>Courses</th>
<th>Commissioned</th>
<th>Enlisted</th>
<th>Civilians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-16, Elementary Military Cryptography</td>
<td>1 - -</td>
<td>- - 14</td>
<td>- - 9</td>
<td>24</td>
</tr>
<tr>
<td>10-17, Advanced Military Cryptography</td>
<td>5 2 15</td>
<td>5 2 -</td>
<td>11</td>
<td>40</td>
</tr>
<tr>
<td>20-30, Military Cryptanalysis, Part I</td>
<td>4 1 12</td>
<td>4 - -</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>20-31, Military Cryptanalysis, Part II</td>
<td>2 - 7 1</td>
<td>- - 3</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>30-30, Military Cryptanalysis, Part III</td>
<td>2 - 1 -</td>
<td>- - 5</td>
<td></td>
<td>109</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14 3 24 25 2</td>
<td>2 31</td>
<td></td>
<td>109</td>
</tr>
</tbody>
</table>

### SUBCOURSES PARTIALLY COMPLETED

<table>
<thead>
<tr>
<th>Courses</th>
<th>Commissioned</th>
<th>Enlisted</th>
<th>Civilians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-16, Elementary Military Cryptography</td>
<td>- - 94</td>
<td>- - 7</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>10-17, Advanced Military Cryptography</td>
<td>3 1 16</td>
<td>3 2 -</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>20-30, Military Cryptanalysis, Part I</td>
<td>5 2 -34</td>
<td>2 2 -</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>20-31, Military Cryptanalysis, Part II</td>
<td>7 3 26</td>
<td>1 - -</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>30-30, Military Cryptanalysis, Part III</td>
<td>1 - 13</td>
<td>- - 3</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16 6 89 40 4</td>
<td>4 19</td>
<td></td>
<td>174</td>
</tr>
</tbody>
</table>

Thus, by 30 June 1939, the total number of enrollments was 283, but far fewer different persons had taken one or more of the extension subcourses. The enrollment, however, became so heavy that it was not practical to include additional civilian students after 10 June 1940, and applications for enrollment were placed on a waiting list. Meanwhile, pending the possibility of reopening the courses to civilian applicants, the several corps areas were requested to investigate and ascertain whether or not the applicants were available for employment in the Signal Intelligence Service in the event of a major emergency.

Even
then it appeared probable that it would be necessary to restrict the
courses to those civilians who were to be trained specifically for
employment in the Signal Intelligence Service. The enrollments by
20 June 1940 were as follows:

### SUBCOURSES COMPLETED

<table>
<thead>
<tr>
<th>Courses</th>
<th>Commissioned</th>
<th></th>
<th>Enlisted</th>
<th></th>
<th>Civilians</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-16, Elementary Military Cryptography</td>
<td>-</td>
<td>-</td>
<td>13</td>
<td>-</td>
<td>32</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>10-17, Advanced Military Cryptography</td>
<td>2</td>
<td>1</td>
<td>24</td>
<td>14</td>
<td>3</td>
<td>21</td>
<td>65</td>
</tr>
<tr>
<td>20-30, Military Cryptanalysis, Part I</td>
<td>4</td>
<td>-</td>
<td>17</td>
<td>4</td>
<td>16</td>
<td>-</td>
<td>41</td>
</tr>
<tr>
<td>20-31, Military Cryptanalysis, Part II</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>17</td>
<td>-</td>
<td>36</td>
</tr>
<tr>
<td>30-30, Military Cryptanalysis, Part III</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>-</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>2</td>
<td>54</td>
<td>37</td>
<td>3</td>
<td>94</td>
<td>202</td>
</tr>
</tbody>
</table>

### SUBCOURSES PARTIALLY COMPLETED

<table>
<thead>
<tr>
<th>Courses</th>
<th>Commissioned</th>
<th></th>
<th>Enlisted</th>
<th></th>
<th>Civilians</th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-16, Elementary Military Cryptography</td>
<td>-</td>
<td>-</td>
<td>31</td>
<td>1</td>
<td>19</td>
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<td>51</td>
</tr>
<tr>
<td>10-17, Advanced Military Cryptography</td>
<td>2</td>
<td>-</td>
<td>20</td>
<td>3</td>
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<td>7</td>
<td>33</td>
</tr>
<tr>
<td>20-30, Military Cryptanalysis, Part I</td>
<td>4</td>
<td>3</td>
<td>27</td>
<td>9</td>
<td>3</td>
<td>11</td>
<td>57</td>
</tr>
<tr>
<td>20-31, Military Cryptanalysis, Part II</td>
<td>3</td>
<td>1</td>
<td>27</td>
<td>1</td>
<td>4</td>
<td>-</td>
<td>36</td>
</tr>
<tr>
<td>30-30, Military Cryptanalysis, Part III</td>
<td>6</td>
<td>1</td>
<td>21</td>
<td>2</td>
<td>-</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>5</td>
<td>56</td>
<td>16</td>
<td>5</td>
<td>51</td>
<td>217</td>
</tr>
</tbody>
</table>

79. Signal Officer, Ninth Corps Area from Colonel S. B. Akin, Subject: Extension Courses, Military Cryptography, 10 June 1940 (SPSIS 352.6).

80. Army Extension Courses, Annual Report of Subcourse Completion, Signal Intelligence School, School Year ending 30 June 1940 (SPSIS 352.6).
The training of advanced Signal Corps students at the University of Illinois in the cryptographic specialty had been initiated in 1937, and during 1941 many of the graduates of these courses were called to active duty. Neither of the Signal Corps officers\textsuperscript{61} on duty with the Reserve Officers Training Corps unit at the University of Illinois had had any formal instruction in cryptography and cryptanalysis, but they were assisted by the Signal Intelligence Section, Office of the Chief Signal Officer, which supplied prepared lessons in cryptanalysis at regular intervals in sufficient numbers to provide different work for each pair of students. Textbooks, pamphlets, and technical supplies were furnished in sufficient numbers to provide for all students. The Signal Corps officers in charge of this course believed that the instruction had been excellent. Instruction was organized so that each student might progress as rapidly as possible, and the students were conscientious in their cooperation. The fundamental cause for the success of the course, however, was attributed by these officers at Illinois to the "timely and appropriate assistance rendered by the personnel" of the Signal Intelligence Section, Office of the Chief Signal Officer.\textsuperscript{62}

\textsuperscript{61} They were given assistance also by a member of the Illinois Department of Biology, Dr. Evert Conder, who later became a member of the Signal Security Agency.

\textsuperscript{62} Chief Signal Officer from Professor of Military Science and Tactics, \textit{OJT}, University of Illinois, Subject: Cryptographic Course Instructional Assistance, 26 April 1939 (SPSIS 352.6).
III. The Expansion of the Signal Intelligence Service

The University of Indiana also desired to establish a similar course in 1940-1941, but this was considered inadvisable since the University had no Signal Corps ROTC unit to supply a basis for the cryptographic instruction; the urgent necessity for training military personnel to fulfill mobilization requirements with respect to cryptographic activities had, as we have seen, caused the Chief Signal Officer to limit the enrollment in the subcourses to Signal Corps personnel including Signal Corps ROTC units.83

In July 1941 the Assistant Chief of Staff, G-2 approved the distribution of the textbooks and lesson assignment sheets, including problems and approved solutions, for the five subcourses and the translations of the works on cryptography by Tydeman and Giverges to the Chinese Government. Permission was given for the translation of these documents into the Chinese language, but their classification was to be continued as "restricted" and their distribution was to be limited to authorized official Chinese personnel.84

The plans for the training of the new personnel of the Signal Intelligence Service had already been formulated, while the recommendation for the expansion of the organization was still awaiting official approval. The training was conducted by the student officers

83. Memorandum for Captain W. Preston Cordeman from Colonel S. S. Akin, 10 December 1940 (SPHS 352.6).

84. Major General Shih-Ming Chu from the Chief Signal Officer, 10 July 1941 (SPHS 352.6).
III. The Expansion of the Signal Intelligence Service

of the Signal Intelligence School. The course for cryptographic and cryptanalytic clerks covered the subcourse in military cryptography and the first two subcourses in cryptanalysis. In addition, instruction was given in the application and simple operation of IBM machinery in cryptographic and cryptanalytic activities. No time limit was placed on the completion of the courses. 85 The cryptographic courses were completed individually and the cryptanalytic courses were completed by teams of three or four persons. A competitive spirit was stimulated by the maintenance of the pertinent records in order "to get the most out of them in the shortest possible time". 86

The course for cryptanalytic aides and junior cryptanalysts covered Military Cryptanalysis, Parts II and IV, and Code Problems 1 to 40 as designed for the Signal Intelligence School. The duties of the personnel in training were divided. Half of the day was devoted to studies and the remainder consumed in practical tasks in the accomplishment of the current work of the section. In the second phase of training, code manuscripts were read in galley and page proof, but no interference with the half day of study was permitted, however, until the courses were completed. 87

85. R&V, W. F. Friedman and Captain George A. Bisher to Colonel S. B. Akin, 6 October 1939.
86. Ibid.
87. Ibid.
III. The Expansion of the Signal Intelligence Service

F. The Establishment of the Fort Hunt Intercept Station

A week before the directive of The Adjutant General, of 27 September 1939, which authorized the Chief Signal Officer to establish and operate a monitoring station at Fort Hunt, Virginia, the necessary arrangements had been concluded. Clearances from the agencies interested in that reservation (the National Park Service, the Secretary of the Interior, and the Park and Planning Commission) had been secured, so that the allotment of $102,255 for the purchase of the necessary equipment made it possible to proceed immediately with the establishment of that station.

Approval was given by the National Park Service for the intercept station to occupy the old hospital building at Fort Hunt. The Commanding General of the Third Corps Area was directed to make the necessary arrangements for the detachment of one officer and 26 enlisted men to mess with the CCO Company stationed at Fort Hunt. The 66th Infantry was directed to provide a reconnaissance car to the Chief Signal Officer for duty with this detachment. Messing arrangements were completed three days later, and the reconnaissance car was made available by the Commanding General, Fort George G. Meade.


89. The Adjutant General to the Commanding General, Third Corps Area, Subject: Signal Detachment at Fort Hunt, Virginia, 20 September 1939 (AG 321.925 (9-18-39)) 1st Ind; General Third Corps Area to Chief Signal Officer, 23 September 1939 (AG 321.924 (9-18-39)).
The enlisted personnel for the operation of the new monitoring station at Fort Hunt was obtained from organisations stationed at Fort Monmouth. First Lieutenant Robert K. Schukraft was selected as the officer in charge of the intercept station. The unit was scheduled to arrive at Fort Hunt 15 October 1939.

F. Conclusion

To recapitulate, the Signal Intelligence Service had, during the period beginning with September 1939 and ending with the Pearl Harbor attack in December 1941, expanded its organization within the limits permitted by the several authorizations, but there was always a slight lag between an authorization and the fulfillment of its provisions by recruiting. The problem of finding competent persons for appointment was difficult, and since there was a high standard to be met in matters of loyalty and character, not all those who possessed the necessary competence could qualify.

90. The Commanding Officer, Fort Monmouth from Executive Officer, OC Sig O, Subject: Second Signal Service Company Detachment for duty at Fort Hunt, Virginia, 27 September 1939 (OC Sig O 370.3 RD); Commanding General, Third Corps Area, thru Commanding Officer, Second Signal Service Company from First Lieutenant R. K. Schukraft, O.I.C. Subject: Repairs to Hospital Building for Signal Detachment, Fort Hunt, Va., 7 February 1940 (AD 321.924 (2-7-40)).

91. Commanding General, Third Corps Area from Executive Officer, OC Sig O, Subject: Enlisted Detachment, Fort Hunt, Virginia, 2 October 1939 (OC Sig O 320.3 RD).
The result was that on the day of the Pearl Harbor attack the Signal Intelligence Service was composed of the following staff:

<table>
<thead>
<tr>
<th>Category</th>
<th>In Washington</th>
<th>In the Field</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>44</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Warrant Officers</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Enlisted Men</td>
<td>28</td>
<td>149</td>
<td>177</td>
</tr>
<tr>
<td>Civilians</td>
<td>109</td>
<td>0</td>
<td>109</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>161</strong></td>
<td><strong>150</strong></td>
<td><strong>311</strong></td>
</tr>
</tbody>
</table>

Those in Washington were distributed among the various units as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Officers</th>
<th>Civilians</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Personnel</td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Tabulating</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Cryptanalytic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese</td>
<td></td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>German</td>
<td></td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Italian</td>
<td></td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Mexican</td>
<td></td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Traffic</td>
<td></td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Cryptographic</td>
<td>16</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>Laboratory</td>
<td></td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>44</strong></td>
<td><strong>87</strong></td>
<td><strong>131</strong></td>
</tr>
</tbody>
</table>

To the foregoing table should be added a total of 22 civilians who were either typists employed in the Stenographic Unit (B-5), for which exact figures are no longer available, or were students in the school as yet unassigned to an operating unit, and 28 enlisted men, members of the Second Signal Service Company, who performed duties in one or another of the operating units. Thus, a complete tabulation of all personnel becomes as follows:
III. The Expansion of the Signal Intelligence Service

| Personnel accounted for in the preceding table | 131 |
| Civilians unassigned and in B-5 | 22 |
| Enlisted men | 23 |
| **Total** | **181** |

The activities which all these persons were carrying on before the war will be discussed in detail in connection with the work which the existing units, after wartime expansion had taken place, ultimately performed. At this point, however, it will be well to discuss the part played by the Signal Intelligence Service.
CHAPTER IV. THE SIGNAL INTELLIGENCE SERVICE FROM DECEMBER 1941 TO JULY 1942

A. Organisation

When World War II broke out on 7 December 1941, the Signal Intelligence Service had reached, as the result of unprecedented expansions in recent years, a total strength of 721 officers, enlisted men, and civilians. Moreover, plans had been laid for further expansions looking ahead as far as the Fiscal Year 1943. So far as personnel alone was considered, the Signal Intelligence Service was thus better equipped at the beginning of World War II than the corresponding organisations in World War I had been at the time of their greatest expansion. At that time, however, it was impossible to anticipate with any degree of accuracy the limits of the ultimate wartime expansions. That, before the defeat of the major Axis powers and their satellites could be accomplished, more than 26,000 officers, enlisted men and women, and civilians would be engaged in comparable work for the Army alone, to say nothing of Naval personnel and the corresponding forces of our Allies, no one realized. For every person at work in the Signal Intelligence Service on 7 December 1941 the Army ultimately employed 78 on V-J Day.

1. Exact data no longer exists for the strength of all Signal Intelligence units in World War I. The maximum strength of MI-5 in November 1918 was 161 persons, while the Radio Intelligence Section, General Staff, in France had 60 officers and men. The Signal Corps Code Compilation Section had five or six persons; how many officers and men were in the Radio Intelligence Section, performing interception and radiogoniometric tasks, is unknown, but the number can hardly have been very large.
This enormous expansion was, of course, not immediate but gradual. Efforts were made to anticipate future needs and to prepare for them, but in the personnel field need was always considerably ahead of the supply.

On 27 December 1941 the Signal Intelligence Service was organized as a division of the Operations Branch, Office of the Chief Signal Officer, of which the chief was then Colonel Otis E. Sadler. The Chief of the Signal Intelligence Service was Lieutenant Colonel Rex W. Minckler, with Mr. William F. Friedman as Civilian Assistant and Major Harold G. Hayes as Executive Officer; the staff was as follows:

2. This table of organization was compiled partly from personal testimony and partly from a document now missing, Organization SIS Division, 27 December 1941 (SFSI3-Daily File). There are notes from this document on file, but these present several historical problems not easily solved. In the first place the various units are described as "branches," a term not used until much later. Moreover, a reference to "Z Branch" appears in place of the Second Signal Service Company, whereas "Z Branch" was not created until the summer of 1942. The School is not mentioned at all. In any case the notes are consistent with the date of the missing document since early in 1942 the unit therein called A-2 was redesignated as B-2.
Chief Signal Officer, the Signal Intelligence Service became a part of that Branch, a relationship which was maintained thereafter throughout the War, in spite of several changes of name. At the same time the former A, A-1, and A-2 units were combined in a new Administrative Section similar to the old except that A-1 was now concerned with personnel problems, A-2 was the Signal Intelligence School, and A-3 the Tabulating Unit.

The Cryptanalytic (B) Section was organized as follows under Major Harold Douc;:

| B-1 | Japanese    | Major Eric H. B. Svensson |
| B-2 | German      | Captain S. Kalbeck        |
| B-3 | Italian     | Captain A. Sinkov         |
| B-4 | French      | First Lieutenant H. F. Bearce |
| B-5 | Stenographic| Miss M. Louise Prather    |
| B-6 | Traffic     | Captain Robert E. Schukraft |
| B-7 | South American | First Lieutenant Leroy M. Glodell |

Note that in this list Captain Schukraft, who was also at that time the Commanding Officer of the Second Signal Company, appears as head of one of the units of the Cryptanalytic Section. The Cryptographic (C) Section was organized under Captain Earle F. Cook, as follows:

3. Office Memorandum No. 170, OCSigO, 26 December; Courtney E. Hall, Development of the Office of the Chief Signal Officer, part I, 1917-1943, p. 133, fig. 27.

4. Descriptive Chart (7 February 1942), SPSIS 920.21.

5. The history of the various units will be found in other volumes of this History.
The Laboratory (P), under Major A. J. McGrail, was not subdivided into smaller units. It was charged, nevertheless, with two separate functions: (1) the preparation, detection, and solution of secret inks and (2) providing photographic facilities.

### B. Maritime Expansion

The first record of a request for additional personnel subsequent to the Pearl Harbor attack is contained in a recommendation dated 7 February 1942 for allotment of additional officers, including "all military personnel considered necessary" for existing as well as future needs. There were at that time 43 officers on duty. This figure, owing to the creation of overseas services, represented a decrease of six since 1 January 1942. The existing allotment had been based on an estimate made prior to the War, and it was advisable to provide for greater expansion than had been contemplated. Since it had become

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6. Draft Memo to the Chief Signal Officer, Subject: Authorized Allotment of Officer Personnel, S13, 7 February 1942 (SP313 320.21).

7. RAW Memorandum for OIC, Operations Branch, OSSigO, from Lieutenant Colonel Rex H. Hinckler, 1 January 1942, RAW Memorandum for OIC, Army Communications Branch, OSSigO, 5 February 1942 (SP313 319.1). The 44 officers on duty on 7 December 1941 had been increased in the same month to 49.
increasingly difficult to obtain deferment for male civilian employees, the aim was therefore to procure (1) military personnel, (2) female civilians, and (3) males who had been classified by Selective Service as 4-F. It was at that time estimated that a total force of about 160 persons would be required. 8

In the early days of the War the Chief Signal Officer had a policy of replacing military personnel in his office by civilians, so as to make the military personnel available for assignment elsewhere. The effect of this policy upon operations of the Signal Intelligence Service would, it was feared within the Service itself, be highly unfavorable, and an effort was made to exempt military personnel in the Signal Intelligence Service from the provisions of the policy 9 by increasing, rather than decreasing, the number of officers. It was asserted that, while in many capacities civilians could be employed primarily for technical and clerical duties and these civilians would constitute a permanent War Department staff not subject to overseas assignments, it was essential that the Signal Intelligence Service be organized on a military basis so that it would be able to supply on short notice a comparatively large number of military personnel for special field service. If major efforts were made in more than one theater, a competent

8. Draft Memo to the Chief Signal Officer, 7 February 1942.
signal intelligence service would be needed in each case. While certain of the responsibilities of the Signal Intelligence Service in Washington could then be delegated to the field echelons, the necessary training to establish the latter could not be accomplished at once.

Moreover, many of the officers who had been assigned to signal intelligence duties were not trained for other Signal Corps assignments but had been specially selected because their education, experience, and aptitude fitted them for assignment to the Signal Intelligence Service. Consequently, a reduction of the military personnel in the Signal Intelligence Service for immediate assignment to other duties would harm the Service and not benefit the Signal Corps as a whole. Competent civilians could not easily be obtained to replace key military personnel, and some of the officers who might be transferred elsewhere were among the most skilled and most highly trained of the entire staff.

As a result of these and other considerations, it was requested that 90 officers and 176 enlisted men be authorized for assignment in the Signal Intelligence Service, and on the same day a request for an additional 115 civilian employees was also submitted to the Civilian Personnel Division. The Chief Signal Officer two days

10. Ibid., par. 3.
later forwarded the request for the expansion of civilian personnel to the Assistant Chief of Staff, G-2. The 115 new persons were to be trained as technical specialists, as cryptographic clerks, and as tabulating machine and punch machine operators. The request, which had already been authorized under the blanket approval of the expansion of the Signal Intelligence Service by The Adjutant General on 2 November 1939, was approved by the Assistant Chief of Staff, G-2 on 11 March 1942.  

Thus far the wartime expansions proposed had been moderate in scope and were for the most part merely a carrying out of the plans which had been prepared during the period of peace. The month of March 1942, however, marked the beginning of a new phase. Henceforth, the rate of expansion was to greatly accelerated. As the result of informal conversations between Brigadier General Frank E. Stoner (the new Chief of the Army Communications Branch), Colonel Carter W. Clarke (Military Intelligence Service), and Lieutenant Colonel Rex H. Hinchler (Signal Intelligence Service), during which were discussed the wider aspects of the expansion necessary for the proper performance of the duties entailed by war, the Chief of the Military Intelligence Service issued a memorandum to the Chief Signal Officer on 28 March 1942. This was intended, as was specifically

12. Memorandum to the Assistant Chief of Staff, G-2, from the Chief Signal Officer, Subject: Signal Intelligence Service, 28 February 1942 (AGO 220 (2-28-42)).
stated, to be a "warning order" so that the necessary plans, both technical and administrative, could be prepared and "the tremendous expansion of your Signal Intelligence Service" could be initiated.\(^{13}\)

Cryptographic communications, intercepted by the Second Signal Service Company, were to be processed completely, translated, and the information supplied to G-2. Priorities for the interception and processing of traffic were established as follows:\(^{14}\)

1. German, Japanese, Russian, and Italian Army and Air Force traffic.
2. Japanese, German, Italian, and Russian Military Attache traffic.
3. Diplomatic traffic between the Axis capitals.
4. German administrative nets.
5. Vichy French traffic.
6. Japanese diplomatic traffic with neutrals.
7. German diplomatic traffic with neutrals.
8. All Russian traffic.

In order to obtain this traffic, the Signal Intelligence Service was directed to use all existing stations and other available sources.

13. Memorandum for the Chief Signal Officer from the Chief, Military Intelligence Service, Subject: Expansion of the Signal Intelligence Service, 28 March 1942 (SPSIS-1).

14. How revolutionary this list of priorities was will be understood when it is remembered that at this time the Signal Intelligence Service was operating under G-2 directives prescribing cryptanalytic study of the diplomatic traffic of Japan, Germany, Italy, Mexico, France, and a few South American countries.
In addition, a large intercept station was to be established on the Eastern Seaboard near Washington, D. C. and a second on the East Coast. Secondary stations were to be established in Alaska for Japanese Army traffic and in Iceland for German Army traffic. The two primary stations were to be permanent and to be so planned and constructed as to permit a reasonable expansion of their intercept facilities. Construction was to be expedited and undertaken with the greatest secrecy.

As a security precaution, for the protection of the Signal Intelligence Service from bombing or the attentions of enemy agents, it was recommended that the organization be moved from the Munitions Building to some location outside the City of Washington. The site selected should not be more than an hour and a half by automobile from Washington, and, if practicable, should be "in the immediate vicinity" of the Eastern Primary Monitoring Station.

It was also recommended that the Signal Intelligence Service should establish a special Security Section, the sole duty of which would be "to insure the security of our own cryptographic material and systems." In accomplishing this mission, the Signal Intelligence Service would undertake the additional duty of monitoring our own fixed and field radio circuits. Reports would be made to O-2 in regard to all unauthorized transmissions which might compromise our own cryptographic systems or provide the enemy with information relating to our own forces.
IV. The SIS from December 1941 to July 1942

The Code Compilation Section was expected to give special attention to providing the Army with the most secure cryptographic material compatible with speed of operation and adaptability to field conditions and to field forces. Attention would early be given to development and procurement of short-distance direction-finding equipment for task forces and field armies. It was contemplated that the War Department would concentrate its efforts on short-distance equipment, while those agencies vitally concerned would develop the necessary long-range equipment. Additional Radio Intelligence companies were to be activated as necessary for assignment to task forces and armies.

About three weeks later (18 April 1942) the Chief Signal Officer received from the Adjutant General formal authorization for the expansion of the Signal Intelligence Service. The official order was essentially the same as the warning order with the exception that, in addition to the traffic already mentioned, subsections were to be devoted to Spanish, Balkan, Swedish, Finnish, Turkish, and Iranian traffic. The priorities approved were the same as those given in the earlier order with the exception of the omission of Russian traffic. That the processing of cryptographed traffic should be completed as soon as the codes and ciphers were solved was particularly emphasized. This was to include not only material currently intercepted but all backlogged traffic as well.

15. Memorandum for the Chief Signal Officer from The Adjutant General, Subject: Expansion of the Signal Intelligence Service, 18 April 1942 (AG 320.2 (4.18.42) MC-b), par. 2, 6-7.
While these provisions were nearly the same as those given in the warning order, an entirely new paragraph directed cooperation with the British. This collaboration had, in fact, been in progress for about a year; the present reference to the topic confirmed the status quo, but no collaboration with any other foreign government was to be undertaken without specific authority in each case.\footnote{16}

Meanwhile, in compliance with the original warning order, steps had been taken to obtain and train additional personnel and to establish adequate facilities to provide the increased service as soon as possible. Plans for the establishment of new intercept stations were already being considered. The acquisition of the large CAA receiving station south of San Francisco was contemplated. It was equipped with modern receiving equipment and would provide the maximum efficiency and reception for the interception of Japanese and other desired traffic in the Far East. Steps had already been taken for the survey and establishment of an intercept station in Alaska to cover Japanese and Far Eastern traffic. The establishment of a large station on the East Coast would be coordinated with the organization of a second echelon of the Signal Intelligence Service.\footnote{17}

\footnote{16} For a full account of the establishment of collaboration with the British see volumes Two and Six.

\footnote{17} Memorandum for the Assistant Chief of Staff, G-2 (from the Chief Signal Officer), Subject: Expansion of Signal Intelligence Service, 13 April 1942 (OSCtgO 311.5—Gen.) pars. 1-2.
The location of an additional echelon of the Signal Intelligence Service outside Washington, to be composed of part of the activities, personnel, and equipment of the organization, was planned. It would function as the operating section; but if found advisable, all activities would be moved from the Munitions Building. The establishment of this echelon would provide space for a considerable portion of the new personnel.

By 1 May 1942 the organization of the Signal Intelligence Service to meet the increased responsibilities of the anticipated expansion had been given careful consideration. It was proposed by Colonel Frank W. Bullock, who had assumed command of the Signal Intelligence Service on 18 April 1942, that the SIS should be reconstructed into a fully integrated, permanent establishment. Brigadier General Frank R. Stoner, Chief of the Army Communications Branch, recommended approval of this proposal. He declared that the reorganization was made necessary by the directive of the Assistant Chief of Staff, G-2, which required approximately a 100 per cent expansion of the Signal Intelligence Service. Under the directive, two functional requirements (training and operations) would be established.

18. Memorandum for SIS Personnel from Colonel Frank W. Bullock, 22 April 1942 (OCSigO 311.5—Gen.), par. 3; Office Orders No. 91 OCSigO, 18 April 1942.

19. Memorandum for the Chief Signal Officer thru Chief Army Communications Branch, from Colonel Frank W. Bullock, 1 May 1942 (OCSigO, 311.5—Gen.).

20. Ibid., 1st Memo. Ind., 5 May 1942.
Under the proposed reorganization, the Officer in Charge (Colonel Bullock) would himself direct a Liaison Unit, while his Executive Officer supervised an Administrative Unit, a Supply Unit, and the Second Signal Service Battalion. The remaining were divided between an Operations Division and a Training Division, with a Research Committee assisting both. The Operations Division consisted of four sections: Security, Cryptanalysis, Cryptography, and Secret Inks. The Training Division also consisted of four sections: Foreign Languages, Cryptanalysis, Cryptography, Security. The plan was immediately approved by the Chief Signal Officer with two minor exceptions, and Lieutenant Colonel Rex W. Hinckler was designated an Assistant Officer in Charge.

On 22 June 1942, however, the organization was again changed. The name "Signal Intelligence Service", which had been used since 1930, was changed to "Signal Intelligence Service Division", and this consisted of three Branches: Operations Branch, Supply Branch, Cryptographic Training Branch. Three weeks later the Signal Intelligence Service Division became the Signal Security Division, which then consisted of two branches: Cryptographic Supply Branch and Cryptographic Operations Branch.

21. The word "Chief" in the plan was changed to "Officer in Charge"; "Deputy Chief" to "Assistant Officer in Charge".
22. Office Memorandum No. 142, GC31g0, 19 June 1942.
23. Office Memorandum No. 168, GC31g0, 13 July 1942.
Meanwhile, in fulfillment of the approved authorizations, the personnel of the Signal Intelligence Service had been slowly increasing. By 1 June 1942 it consisted of 102 officers and 237 civilian employees. A month later there were 121 officers and 364 civilians. Yet on 24 June 1942, it was necessary to request an increase in the number of civilian positions authorized for the Signal Intelligence Service Division. On that date there were 250 positions authorized, and it was requested that 807 additional positions be allotted, making a total of 1,057. Though the request quadrupled the civilian staff, it was believed that it was fully justified by the directive of 18 April 1942. The total expenditure involved $2,130,460, of which $494,920 had already been authorized and $1,635,540 had now to be requested.

On 10 July 1942, the authorization was approved by the Commanding General, Services of Supply.

24. Memoranda for Chief, Army Communications Branch, from Colonel Frank W. Bullock, 1 June 1942, 4 June 1942, 1 July 1942, and 2 July 1942 (SPSIS 310.1).

25. The reorganization of the Army on 9 March 1942 had placed the Office of the Chief Signal Officer under the Services of Supply, and additional civilian positions now had to be approved by the Commanding General of the Services of Supply.

26. Memorandum to the Commanding General, Services of Supply, from the Deputy Chief Signal Officer, Subject: Expansion of Signal Intelligence Service, 24 June 1942 (SPSIS 311.5—General).

27. 1st Ind. to above.
From its origin the Signal Intelligence Service had been subject to the supervisory control of the Assistant Chief of Staff, G-2 in all matters relating to the production of intelligence and the preservation of security of our own communications. There were three reasons for this fact: (1) the dominant role played by the Assistant Chief of Staff, G-2 in all intelligence activities; (2) the fact that during World War I the production of information from intercepted communications had been a function of the Military Intelligence Division; and (3) the financial support which the Assistant Chief of Staff, G-2 had given at the time of the formation of the Signal Intelligence Service in 1923-1924.

This control was, on 25 May 1942 consolidated under the direction of a single officer, and Colonel Carter M. Clarke was appointed as the representative of the Assistant Chief of Staff, G-2 to supervise all signal intelligence of the War Department and to handle and disseminate special material produced by and through these and similar activities. He was also directed to serve in respect to signal intelligence matters as liaison officer of the Assistant Chief of Staff, G-2 with the State Department, the Navy, the Federal Bureau of Investigation, the office of the Coordinator of Information, the Office of Facts and Figures, and the Federal Communications Commission. It was also Colonel Clark's responsibility to prepare or coordinate "all directives to the Chief Signal Officer on signal intelligence matters" and to provide
"the supervision necessary to insure their accomplishment."28

D. Relations with the Navy

The entrance of the United States into the war had increased the amount of diplomatic traffic between the Axis capitals and their representatives abroad and intensified our interest in the interception of that traffic. In peace time the Army and Navy, by unwritten, informal, and loose agreement, had shared the responsibility for intercepting and processing diplomatic traffic, and, from an initial lack of cooperation and coordination, close daily collaboration for this purpose had gradually developed between the signal intelligence organizations of the two services. The question of the division of the work had been raised at a time when the two services were collaborating and coordinating quite closely in interception but were competing in the exploitation of the intercepted material; no agreement for a permanent division of responsibility for processing could be reached. The rivalry between the services had reached a point where, whenever an important message was intercepted and read, each service would rush forward immediately to the White House a copy of the translation in an effort to impress the Chief Executive with the accomplishments of the signal intelligence facilities of the department which had translated the message. This competition was not only

28. Memorandum to Colonel Carter W. Clarke, General Staff Corps, from Chief, Military Intelligence Service, Subject: Signal Intelligence Activities, 15 May 1942.
unseemly but was a useless and costly duplication of effort as well.

To end the situation, it was suggested by the Chief Signal Officer (then Major General Joseph O. Mumborgne) that the Army and the Navy should share responsibility for processing the intercepted traffic on an alternate daily basis: that is, the Army would receive and process all intercepts bearing an even date of the month, the Navy, all those bearing an odd date. In this way it was believed that neither service would have an unfair advantage over the other from the point of view of number and value of the translations produced.

The suggestion was accepted by the Navy (Admiral Noyes), and the arrangement lasted until 25 June 1942, though the arrangement was never satisfactory in operation. While each of the services possessed all of the traffic intercepted by both, it was expected to solve only that part of the traffic which was its responsibility and to translate only messages sent on the days assigned. It happened, however, that there were some technical and practical difficulties in carrying out the agreement, and, in addition to occasional duplication of translations, there was still a very real duplication of effort in that at a time of great scarcity of trained cryptanalytic personnel, both the Army and the Navy were maintaining diplomatic

29. The exact date on which the suggestion was made is unknown but General Mumborgne was Chief Signal Officer from 1 October 1937 to 30 September 1941. It is interesting to note that a similar "practical arrangement" was in effect between two signal intelligence organizations of the German Government, as was learned as a result of TICOM operations.
cryptanalytic sections for processing identical material—a duplication hard to justify. Had these two sections been amalgamated into one, there would have been not only an appreciable saving of personnel but also the incalculable advantage of having the necessary number of highly skilled experts concentrated in a single well integrated team, leaving the remaining experts free to work on problems requiring a considerable amount of skill and experience. 30

Not only was the existing situation inefficient, but the prospective removal of the Signal Intelligence Service from Washington—the Navy had been given to understand that the new site would be at Frederick, Maryland—a plan afterward abandoned—would make it extremely difficult to maintain the necessary liaison. In addition, while at that time the Army was not occupied with Japanese military systems, 31 the Navy had more Japanese naval material than it could handle with its available personnel. In fact, as pressure for work on naval systems increased, the Army was asked to take over more and more of the work on diplomatic systems; a responsibility which was accepted in every case. But the Navy had a great deal more work on which it desired to concentrate: air and weather systems and, through


31. Though this is strictly true, the Army had formerly been studying Japanese military systems and was, of course, later able to make outstanding contributions to the progress of the War in precisely this field.
its wartime control of the Coast Guard, surveillance of clandestine systems. Consequently, since neither service was satisfied with the status quo, the Navy signal intelligence service (OP-20-G) recommend that the Army, for the duration of the War, be permitted to take over all diplomatic work, making available to the Naval intelligence services translations of messages of interest to the Navy. By verbal agreement, therefore, between the Officers in Charge of the two intelligence agencies, Commander John R. Redman and Colonel Frank H. Bullock, the Signal Intelligence Service on 25 June 1942 assumed responsibility for all diplomatic traffic. This agreement, however, was merely the culmination of the process already referred to: the transfer was not instantaneous but gradual and had been in progress for a long time. It should be pointed out that the Navy had not conducted cryptanalysis of any diplomatic traffic except the Japanese, whereas the Army sections were at work at this time on German, Italian, French, Spanish, Portuguese, and Latin-American diplomatic traffic.

At about this time both services began to be disturbed by factual evidence and rumors of numerous agencies actually engaging in or about to undertake cryptanalytic operations. For reasons of security it was clear that some limitations ought to be placed upon work of this sort by governmental agencies. The next few paragraphs deal with this matter and tell how the limitation was accomplished.

In accordance with a directive contained in a Memorandum of the
President, signed at Hyde Park on 26 June 1939 (and addressed to the Secretary of State, the Secretary of the Treasury, the Secretary of War, the Attorney General, the Postmaster General, the Secretary of the Navy, and the Secretary of Commerce) the Directors of the Federal Bureau of Investigation of the Department of Justice, of the Military Intelligence Division of the War Department, and of the Office of Naval Intelligence of the Navy Department were appointed as a committee to coordinate activities of these three agencies in "the investigation of all espionage, counter-espionage, and sabotage matters". These matters were to be controlled and handled solely by the agencies named. The committee, established as the Joint Intelligence Committee, with Rear Admiral T. S. Wilkinson, USN as Chairman, directed certain officials in the three agencies concerned to constitute themselves as an "Informal Standing Committee" to study the extent to which various governmental units were engaging in cryptanalytic activities and to submit recommendations for limitations thereof. The members of this Standing Committee were the heads of the three Intelligence Agencies, the Federal Bureau of Investigation, the Military Intelligence Service, and the Office of Naval Intelligence. The Standing Committee in turn appointed a subcommittee consisting of officials from the cryptanalytic units of the three agencies, together with representatives of G-2 and O.S.I. This subcommittee forwarded to the Joint Chiefs of Staff a report dated 20 June 1942 on "Limitation of Cryptanalytical Activities", the text of which (JCS 65) is as follows:

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IV. The SIG from December 1941 to July 1942

1. The informal standing Committee, composed of the Heads of the three Intelligence Agencies, F.B.I., N.I.S., and O.N.I., has conducted a study of present and prospective cryptanalytical activities, in order to assure the maximum security and efficiency in the conduct of this essential work.

2. The Committee concludes, in the interest of secrecy, elimination of unnecessary duplication, and most efficient use of the limited number of talented personnel skilled in cryptanalysis, that this work should be controlled and undertaken by a minimum of agencies. In view of the fact that the Army, the Navy, and the F.B.I. now have large organizations well equipped for and capable of handling the processing of all the raw material currently intercepted, the Committee recommends that the processing of that raw material be limited to the three agencies aforementioned.

3. It is intended by the Committee that any and all necessary cryptanalytical work will be allocated among the three agencies named, so that the field can be satisfactorily covered.

4. In addition to the organizations named, it is understood that at present small cryptanalytical units exist in the offices of (1) Director of Censorship, (2) Federal Communications Commission, and (3) Coordinator of Information. It is possible that other Offices have installed or are contemplating cryptanalytical units.

5. In view of the range of the governmental agencies involved now, and possibly more in the future, it appears that Presidential approval of this recommended limitation will be necessary, and it is recommended that such approval be obtained.

Upon consideration of this recommendation the Joint Chiefs of Staff issued a directive, no copy of which is available except as quoted below. A conference of representatives of the Army, Navy, and FBI met on 30 June 1942 and later issued to the Joint Chiefs of Staff the following report:
In accordance with your directive, a conference of representatives of the War Department, the Navy Department, and the Federal Bureau of Investigation was held on 30 June 1942, at which time the conference was advised of your directive which was as follows:

"That a committee be designated composed of one representative from each service to consider the entire field of cryptanalysis to assure themselves that the three services can cover the entire field, and having assured themselves that they could cover the entire field, to avoid duplication of effort by allocation of the cryptanalysts among the services of those types which the respective services are best qualified to undertake. Provision should be made for pooling of effort aside from this allocation whenever circumstances require. Consideration should be given to the formation of a standing committee to pass upon any questions of allocation or pooling of efforts which may arise from time to time."

A study was made of the entire field of cryptanalytical work for the purpose of determining whether the three designated agencies, i.e., the Army, the Navy, and the FBI, were able to handle all such work.

The survey of this field reflected that this work fell generally into the following classes:

1. Diplomatic
2. Enemy Naval Operations
3. Enemy Military Operations
4. (a) Western Hemisphere Clandestine
   (b) International Clandestine other than Western Hemisphere
5. Trade Codes
6. (a) Army Weather
   (b) Navy Weather
7. Domestic Criminal
8. Voice Broadcast
9. Cover Text Communications
10. Miscellaneous

After surveying this field, it was the unanimous opinion of this conference that all of this work could be adequately handled by the cryptanalytical sections of the three interested agencies.

A study was made by the conference with reference to the question of the allocation of this work, and the conference agreed on the following allocation:
IV. The SIS from December 1941 to July 1942

1. Diplomatic: Army

2. Enemy Naval Operations: Navy

3. Enemy Military Operations: Army

4. (a) Western Hemisphere Clandestine: FBI-Navy
   (b) International Clandestine other than Western Hemisphere: Navy

5. Trade Codes: To be assigned by committee

6. (a) Army Weather: Army
   (b) Navy Weather: Navy

7. Domestic Criminal: FBI

8. Voice Broadcast: FBI

9. Cover Text Communications: FBI

10. Miscellaneous: To be assigned by committee.

32. The report bears the following note at this point: "The conference felt that there was sufficient material to occupy both FBI and Navy with reference to the handling of Western Hemisphere Clandestine work inasmuch as both are presently engaged in it and have a vital interest in the results. It was suggested that the duplication in this field be eliminated by agreement among the members of the committee to be appointed." In the margin in a penciled note by Mr. William F. Friedman: "Be 'Lift' [obtaining of cryptographic material by stealth] FBI not to try any unless confer with Army and Navy first."

33. The report bears the following note at this point: "Inasmuch as this work involves the question of which agency possesses the proper library material applicable to the particular code, it was believed that these cases should be assigned by a standing committee, which committee should have in its possession the complete list of the code book material possessed by all three agencies." Mr. Friedman's penciled note: "Naval: Orange [Japanese], German, Italian; FBI: Spanish, French, Central and South American; Army: all others."

34. Mr. Friedman's penciled note: "to cooperate with FCC and Postal Censorship."

35. Mr. Friedman's penciled note: "to cooperate with Postal Censorship."

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*After the signing of the ceasefire agreement between China, Japan, USA, and China, it was agreed that the arrangement would be maintained. However, during periods of severe tension and diplomatic conflict, particular notice should be taken of secret communications.*
IV. The SIS from December 1941 to July 1942

The conference recommended that a standing committee composed of one representative from each of the three agencies (Army, Navy, FBI) be appointed, and it was recommended that the committee should be made up of the following officers:

1. Officer in Charge, Signal Intelligence Service of the Army;
2. Officer in Charge of the Radio Intelligence Section, Office of Vice Chief of Naval Operations;
3. Officer in Charge of the Technical Laboratory, Federal Bureau of Investigation.

This committee is to meet at frequent intervals for an exchange of information and for the purpose of eliminating any duplication and for the purpose of passing upon any questions of allocation or pooling of efforts which might arise from time to time.

For the War Department
Colonel Carter Clarke
Colonel Frank W. Bullock
Mr. William Friedman
For the Navy Department
Commander John R. Robe
Commander John W. Wengor
Lt. Comm. Alwin D. Kramer
Lt. Comm. L. T. Jones
For the FBI
Mr. E. F. Coffey
Mr. S. M. Ladd

Upon considering this report, the Joint Chiefs of Staff made the following recommendation to the President on 6 July 1942:

In the interests of secrecy, elimination of unnecessary duplication, and most efficient use of the limited number of talented personal skilled in cryptanalysis, it is believed that this work should be controlled and undertaken by a minimum number of agencies. As the Army, the Navy, and the

36. The Coast Guard representative.
Federal Bureau of Investigation, now have large organizations well equipped and capable of handling the processing of all the raw material currently intercepted, the Joint Chiefs of Staff recommend that these activities be limited to the three agencies mentioned. An agreement has been reached with regard to the allocation of this work between the Army, the Navy, and the Federal Bureau of Investigation.

Two days later, on 8 July 1942, the President transmitted the memorandum from the Joint Chiefs of Staff to the Director of the Budget. He stated:

"I am enclosing a copy of a memorandum received today from the Chief of Staff and the Commander-in-Chief of the U.S. Fleet. I agree with them. Will you please have the proper instructions issued discontinuing the cryptanalytical units in the offices of the Director of Censorship, the Federal Communications Commission and the Strategic Services. If you are aware of any other agencies having services of this character, will you please have those discontinued also."

On 25 August 1942 the Committee again met with the intent of discussing matters not completed at the earlier meeting. Those present were:

**Army**
- Colonel Frank W. Bullock
- Colonel Alfred McCormack
- Mr. William F. Friedman

**Navy**
- Commander A. D. Kramer
- Commander J. H. Vangor
- Commander L. T. Jones

**FBI**
- Mr. E. P. Coffey

37. Memorandum for the President from the Joint Chiefs of Staff, 6 July 1942 (SPSIS-1).

38. Memorandum from the Director of the Budget from the President, 8 July 1942 (SPSIS-1).
Most of the business of this meeting concerned allocations affecting only the Navy and the FBI, but at the beginning Mr. Coffey stated the desire of the FBI to continue in the diplomatic field. When opposition was expressed by the Army and Navy representatives, Mr. Coffey did not press the matter further. The only other matter affecting the Army was a decision that each of the services would process any trade-code traffic sent in unenciphered form if it had the necessary book but that enciphered traffic of this type would be allocated as indicated above.

There are two separate accounts of this meeting, one of which was prepared by Mr. William F. Friedman and bears an attached slip with the following:

Memo for Cdr. Wenger:

Herewith my minutes. Please don't hesitate to make any corrections. Right send as yours for comparison. Yours to be official. I want copies for file, Col. Clarke, & Col. Bullock.

F.

The other copy of the minutes was prepared by Commander Wenger, and, though differing in wording and in minor details, it presents substantially the same story as the former. A note in Mr. Friedman's handwriting dated 20 October 1944 is added to each version:

Note: The minutes of this Committee were submitted to higher authority (ONI & G-2) for approval of JIC but no action was ever taken by JIC or ONI or G-2 to approve. This per recollection by Wenger & myself.

The fact that the minutes of this meeting were never approved by higher authority is important because in 1945 there arose a
controversy between the Army and Navy concerning two matters, one of immediate importance, the other of future interest. The first of these questions arose in connection with who should be responsible for the solution of two Japanese systems known as JN 180B and JNH, respectively. It was the Navy's contention that both of these systems fell within the sphere of the Navy's responsibility. A lengthy "Memorandum concerning JN 180B and JNH" was prepared by the Navy in which the history of the allocation of responsibility was reviewed, and the following facts concerning the point at issue were discussed.

1. In February 1945 a Navy liaison officer, in going through the unworked commercial files of the Signal Security Agency, came upon a certain backlog of some 2000 messages, unidentified by the Signal Security Agency, which seemed to resemble traffic of the Kosenbu Shipping Control System (JN 180), which the Navy had intercepted between September 1942 and February 1944.

2. The Navy, on the understanding that no precedent for the working of Japanese commercial traffic by the Navy was being set and that the traffic would be returned to the Army upon request, obtained the messages, solved the system, identified it as the successor to JN 180, and gave it the short title JN 180B.

3. The Navy then requested the current JN 180B traffic, whereupon the Army asked that the system be returned to it.

4. The Navy complied but stated that the system was naval in character and that it intended to press its claim that the exploitation of the traffic was a matter of Navy cognizance.

The solution of the system known as JNH was accomplished jointly by the Army and the British. The system was commercial and concerned shipping, but according to the Army was a low-grade diplomatic system.
The contentions of the two services, as stated by the Navy memorandum, were as follows: both services were in agreement as to the validity of the basic allocation agreement of 30 June 1942, but the Army contended that the allocation of trade-code responsibility made on 25 August 1942 was not valid because the agreement of the Standing Committee was not approved by higher authority than the officers who signed it and that it was in 1945 too old to be acceptable, even if valid when made. The Navy took a more legalistic attitude and supported their contention by asserting that both JN 180B and JSH were concerned with shipping and hence were naval in character. On the other hand, the Army contended that JSH was a low-grade diplomatic system; that the Army should handle Japanese commercial traffic because it intercepted such traffic on circuits which also carry diplomatic material; and that, prior to solution, such traffic cannot be distinguished from diplomatic. Moreover, the Army had established an organisation with trained personnel, had solved JSH in collaboration with the British, and was reading it currently. Even in the case of JN 180B, the Army contended that, since it was used between shore stations and was cryptographically different from JN 180, it was not naval.

The insistence of the Navy in respect to the two systems just discussed was motivated by considerations arising from the second question alluded to above and stemming from the fact that the minutes
of the "Standing Committee" were never approved by higher authority. The problem was this: was Navy going to be disbarred from conducting cryptanalytic operations on diplomatic traffic after the War just because of the allocation made in June 1942? For how long was that allocation intended? The Navy contested, of course, that the allocation was to be effective only during the period of the War and that as soon as the Navy was in a position to re-engage in diplomatic cryptanalysis it was vital that it do so: Cryptanalytic continuity, training needs, technical progress, and so on absolutely required the Navy to conduct such activities since foreign naval traffic in peacetime would not be sufficient to keep the Navy cryptanalytic unit in a state of readiness for efficient wartime operation. The Army tried, for a short time, to maintain the position that the allocation of diplomatic cryptanalysis to the Army was intended to be a more or less permanent allocation. This position was, however, not tenable, and not long after V-J Day steps were taken to bring the Navy back into the field of diplomatic cryptanalysis. By June 1946 joint collaboration and coordination was established on a formal and firm foundation.

E. Liaison with the State Department

As in the case of liaison with the Navy Department, liaison with the State Department in cryptological matters began long before World War II. Indeed, one of the plans which the Chief Signal Officer had

* In view of a verbal agreement between John R. Redman, USN and Col Frank W. Bulluck, USA, on 25 June 1942.
made even before World War I was the preparation of an interdepartmental cryptographic system for use in communications between the State, War, and Navy Departments, but this was never brought to fulfillment owing, in all probability, to a lack of funds. During World War I there was constant liaison with the State Department, and in the period from 1919 to 1929 the State Department supported financially, at times bearing the lion's share of the expenses, the solution activities carried on by MI-3 in New York City. Following the closing of MI-3 in 1929, the State Department showed little interest in solution, and thereafter the earliest dateable record of any collaboration between the War and State Departments on codes and ciphers is contained in a letter from David A. Salmon, Chief of the State Department Division of Communications and Records, dated 16 January 1934, in which he asked that Mr. William F. Friedman give assistance to the State Department in devising a permutation table for a new State Department code. Such assistance was officially authorized and given.

39. See the Annual Reports of the Chief Signal Officer to the Secretary of War in the years immediately preceding 1917.

40. See Historical Background of the Signal Security Agency, volumes Two and Three.

41. Documents cited in this section are all to be found in a folder marked "State" in the files of the Director of Communications Research.
In 1938 the State Department was furnished instructions for the use of the Strip Cipher Device M-138. In the same year there was established a Subcommittee on State, War, and Navy Department Communications, which consisted of Rear Admiral C. E. Courtney (senior member), Mr. David A. Salmon, and Major W. O. Reeder, which met on 17 May 1938 with Mr. William F. Friedman, Commander L. F. Safford, and Lieutenant P. V. Mercer, as technical advisors. The main discussion involved establishment of coordinated terminology in regard to classification and priorities. An attempt was made to establish a system for interdepartmental communication, but this proposal met with objection on the part of the State Department representatives. At a later meeting, however, it was decided, inter alia, "to adopt a common cipher for interdepartmental communications between the State, War, Navy, and Treasury Departments," the last named department being included because of the necessity of communication with elements of the Coast Guard. The Navy Department was to bear the chief responsibility for preparing the system.

This system, which was the War Department cipher device M-138A used with alphabets provided by the Navy, was ready early in 1939 and had the following distribution:

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42. Minutes of meeting of 24 May 1938.
Navy: Commander-in-Chief, Asiatic Fleet
      Any ship in the Asiatic Fleet

State: The Department in Washington
      Ambassadors to China and Japan
      Consul at Hong Kong
      Eleven other consuls in China
      Four consuls in Japan

War: Commanding Generals, Overseas Departments
      Military Attachés
      Military Observers
      (for use with State Department only)
      Military members of international commissions
      GHQ when outside the continental limits

The next reference to interdepartmental liaison in the files
is the letter, dated 18 May 1939, transmitting to the State Depart-
ment for the information of Mr. Salmon and of Mr. J. Rives Childs
(who had been Officer in Charge of Solution of German Military
Ciphers at General Headquarters, American Expeditionary Forces, but
was then of the State Department’s Near Eastern Division) certain
works on cryptography which had recently been printed by the Signal
Intelligence Service.

In October and November 1939 Mr. Friedman compiled for the
State Department a new permutation table for use with a State
Department code then under preparation. The year 1941 must have
marked still further interdepartmental liaison, for there is in the
files a long memorandum, apparently dated 7 June 1941 on current
State Department communications systems. The Secretary of State
(Cordell Hull) had addressed a letter on 12 May 1941 to the Secret-
ty of War (Henry L. Stimson), as follows:
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The Department of State is desirous of having made a most careful survey of its codes and ciphers to determine their efficacy at this time and to discover and establish additional means of preserving the secrecy of its highly confidential communications under present world conditions.

I wish to enlist the aid of the War Department in the conduct of the survey contemplated and I hope you may be in a position to designate a qualified commissioned officer of the War Department to serve in an advisory and a consultative capacity with officers of the Department of State, the Navy Department, and the Federal Bureau of Investigation for these purposes, the importance of which I believe I need not emphasize.

Your cooperation will be much appreciated.

Captain Harold G. Hayes was designated the officer mentioned, with Mr. William F. Friedman as technical advisor. Other members of the committee were Commander L. F. Safford, representing the Office of Naval Communications, Mr. W. G. Blackburn, of the Federal Bureau of Investigation, and Mr. Frederick Livesey, of the Department of State. 43 This committee met on 27 May and on 2, 9, and 12 June 1941 and submitted a seventeen page report, the provisions of which were designed to bring State Department cryptographic systems and communications security procedures into line with those of the

43. Mr. Livesey had been a lieutenant on duty in the Radio Intelligence Section, General Staff, General Headquarters, American Expeditionary Forces (see Historical Background of the Signal Security Agency, volume Two, pp. 24, 180) and from 1919 to 1923 was the chief cryptanalyst and translator in MI-3 in New York (see ibid., volume Three, chapters II, III). With Mr. Childs, of whom mention has already been made, he was the most experienced cryptanalyst the State Department had on its staff. It must be pointed out, however, that neither then nor at any other time did the State Department have a cryptanalytic unit. It depended on the War and the Navy Departments for assistance of this kind.
War and Navy Departments.

Among the provisions of the report just mentioned was one which recommended that the State Department replace, if possible, the slower hand-operated systems with cipher machines. On 28 June 1941 Mr. Sumner Welles, as Acting Secretary of State, requested the Secretary of War to supply to the State Department eight cipher machines. The designation of these machines is not mentioned, but from the estimated cost of approximately $3,000 it is clear that the Converted H-13A was intended. The request was approved by the Secretary of War on 9 July 1941.

The Secretary of State on 22 June 1942 addressed a letter to the Secretary of War requesting the latter to transfer from the Office of the Chief Signal Officer an expert cryptographer (rating F-4) to serve with the State Department. This request was met by the Secretary of War with the suggestion, sent to the Secretary of State on 20 July 1942, that a single cryptographer would not be of much use, and that therefore a commissioned officer of the Signal Security Division be appointed instead to act as liaison officer between the two departments in cryptological matters. The advantage of this proposal would be that the State Department might then have the assistance of the entire staff of the Signal Security Division when occasion demanded. The result of this request was not, apparently, the designation of an officer from the Signal Security Division at this time. Instead the Army Communications Service supplied to
the State Department one officer (Lieutenant De Beaulieu) with a team
of about 12 enlisted men to operate the State Department Code Center.

In November 1942 the Joint Chiefs of Staff addressed the follow-
ing letter to the heads of all non-military agencies using codes and
ciphers in work:

44. Letter signed by Brigadier General John R. Deane, Secretary,
    Joint Chiefs of Staff.

45. As an example of the sort of thing which is meant, we may cite
    the testimony given in August 1944 to the writer by Dr. Revillo
    P. Oliver, of the Portuguese-Brazilian Code Solving Unit, SSA.
    Dr. Oliver stated that on one occasion in the past a message
    sent from the U. S. Legation in Lisbon to Washington had been
    intercepted and misrouted to his unit. It was there examined
    by personnel of the unit who made considerable progress on its
    solution by cryptanalytic means before it was realized that the
    message was not Portuguese but American in origin.
IV. The SIS from December 1941 to July 1942

On 19 November 1943 a conference was held, attended by Mr. William F. Friedman, Major Charles H. Hiser, and Captain James G. Moak, of the Signal Security Agency, and by Messrs D. A. Salmon and Goldsberry, of the State Department. This conference met as a result of a letter from Edward R. Stettinius, Jr., Under Secretary of State, to Mr. C. Howland Shaw, Assistant Secretary, expressing the opinion that a survey of the State Department communications systems by Army personnel was desirable. Reference was made to the report of a previous survey made 26 June 1941, regarding which it appeared that "almost all" of the recommendations made therein have been carried out by the Department. Discussion of the report brought out that there was, however, much still to be done to put the State Department systems on an efficient and secure basis. At this point the question was raised as to whether the group was authorized to conduct the survey mentioned, and the decision of the meeting was that Mr. Salmon should prepare a letter for Mr. Stettinius' signature specifically asking for such a survey.

Instead, however, the Secretary of State signed the letter personally on 23 November 1943. After referring to the previous survey, of which "most of the recommendations were carried out either in whole or in part," the Secretary continued as follows:

A6. Mr. Friedman annotated this expression (on a routing slip to Colonel W. Preston Corderman attached to Captain Moak's minutes) as "too broad."
The Department now desires to have a resurvey made and would greatly appreciate it if the Signal Security Agency of the Office of the Chief Signal Officer of the United States Army could undertake this task at an early date.

The Chief Signal Officer was directed to have the Signal Security Agency initiate at once the survey, and responsibility for it was ultimately placed on the Chief, C Branch and the Director of Communications Research, SSA. Accordingly, a committee consisting of Major Robert D. Brown, Captain James G. Douglas, and Captain James G. Moak called on Mr. Salmond on 1 December 1943 and, after making a thorough survey of the State Department systems in current use, submitted a preliminary report which made the following recommendation:

"It is recommended that the Department consider the use of one-time pads for SECRET and CONFIDENTIAL vertical communications, particularly at important stations such as Stockhols where electrical cipher machines are not available. The Department does not now possess the necessary facilities for the production of such pads but it is believed that any expense for the necessary equipment and personnel would be justified by the attainment of absolute cryptographic security."

A longer report, submitted in both a summarized and a detailed form on 11 January 1944 was signed by Mr. Friedman, Major Brown, and Captains Moak and Douglas. These two reports, which are too long to summarize at this time, made recommendations for the improvement of the State Department communications systems and security procedures and were forwarded by the Secretary of War to the Secretary of State on 22 January 1944.
In March 1944 the Secretary of State requested the Secretary of War to detail an officer to the State Department as Cryptographic Adviser to Mr. Salmon, then Special Consultant to the Assistant Secretary. As a result of this request Captain James C. Moak of the Signal Security Agency was transferred to the State Department on 11 May 1944. At about the same time the Secretary of State requested the Secretary of the Navy to detail an officer to the State Department as assistant to the Assistant Secretary on general security matters. Commander Leo W. Parke, USN was detailed to the State Department for this purpose. During the summer of 1944 Commander Parke, Major Moak, and Mr. Salmon drew plans for the establishment of a Division of Cryptography in the State Department and obtained the approval of the Bureau of the Budget for the project. On 20 September 1944 the Secretary of State issued Departmental order No. 1288 establishing the new Division, and on 20 December 1944 a Departmental Designation was issued appointing Commander Parke as Chief of the Division; Major Moak, Assistant Chief for Operations; and Mr. Salmon, Division Adviser. In July 1945 Major Moak was recalled to the Signal Security Agency for a new assignment and was replaced at the State Department by Major Robert S. Lesher. Major Lesher served in the Cryptographic Division until February 1946, when he reverted to inactive status and left the Department. Owing to personnel shortages at the Army Security Agency, no replacement for Major Lesher was available.
In May 1944, the Secretary of State requested the Secretary of War to furnish the State Department approximately 1000 manually-operated cryptographic devices which would permit secure communication among all offices of the Foreign Service. In conferences between representatives of the two Departments it was agreed that the Signal Security Agency should furnish 1000 Converters M-325 (SIGFOY) for the purpose. Delivery of the machines began in July 1944, and by March 1945 the machine was in use at all posts of the Foreign Service. Concurrent with the development of the use of SIGFOY in the Foreign Service, the State Department, in agreement with the War and Navy Departments, began a program to supply all embassies and legations with an automatic cryptographic machine (the CSP 2200, which, though it bore a Navy designation, was an adaptation of the CCM) and all posts with one-time pad systems.

This program was completed early in 1946. By May 1946, it was decided that the SIGFOY no longer met the operational requirements of the State Department, and it was withdrawn from use.

F. Liaison with the British

The history of the successes of the Signal Security Agency, particularly in the field of cryptanalysis, but also to a more limited degree in the field of communications security, was

47. On these, see volumes Two and Three.

48. On this collaboration, see volume VIII.
marked by a growing cooperation with the British cooperating centers.
The basis of this cooperation was "a general, though secret, agreement
between our Government and the British for full exchange of military
information"^{49} reached in the summer of 1940.\textsuperscript{50} Early in August
1940 "exchange of information with the British . . . was approved,"
and a plan was formulated by which our technical experts here
[in Washington] would formulate the questions on which they desired
information and use the Military Attaché in London as a means of
obtaining the answers.\textsuperscript{51}

49. Memorandum to the Chiefs of Arms and Services, "Information to
be Obtained from Abroad," 29 August 1940, signed Robert P.
Patterson, Assistant Secretary of War (copy now filed in
Military Intelligence Division).

50. Prior to this time the Signal Intelligence Service had had no
relations with its British counterpart except by the following
instances. Some time before 1934 the Chief of the Signal
Intelligence Service, acting on the assumption that the British
must maintain such an organization (that the British had had
well-established signal intelligence services in World War I
was known to all who, like Mr. Friedman himself, had partici-
pated in such profitable liaison) attempted, through the U. S.
Military Attaché in London, to obtain information concerning the
British Civil Service examination for candidates for appoint-
ment to positions in this field. The attempt was successful,
and a copy of The Pamphlet of Competition, printed in 1925,
was received. On 20 September 1934 he requested the Attaché
to obtain a copy of the examination, but this request was
refused on the ground that the examination had not yet been
given. Later, when Commander Denniston of GCCS visited the
Signal Intelligence Service, as will shortly be described, he
expressed surprise that the Signal Intelligence Service had been
able to obtain this information.

51. Memorandum for the Chief of Staff, "Recommendation of General
Strong regarding increase of personnel in London," 8 August 1940,
signed Brigadier General Sherman Miles, Acting Assistant Chief of
Staff, G-2.
By 23 August this arrangement was in effect and plans were then
being made for sending specialists abroad. By the first of Sept-
ember such high-level decisions prompted a draft of a Proposed
Exchange Basis with the British, 53 prepared by Colonel S. B. Akin
and Mr. William F. Friedman. The document in question is of the
highest interest:

DRAFT

PROPOSED EXCHANGE BASIS WITH THE BRITISH

A. CRYPTOGRAPHIC

Nothing of a secret or confidential nature to be disclosed
but mechanics of such tactical cryptographic systems as the
training editions of the division field code, cipher devices
M-94 and M-134, Air-Ground Liaison Code and Air-Ground Fire
Control Code may be exchanged. Specifically no information
of any kind shall be transmitted to them with respect to
the converter type M-134-A, B or C (CSP-38) nor should the
existence or general principles of these machines be dis-
closed. There would be no objection to exchanging informa-
tion with respect to the Hagelin machine known as type C-38.54

52. Ibid. A discussion to take place on 30 August 1940 among the
chiefs of Arms and Services "on the advisability of sending
highly qualified civilian scientists and or . . . officers"
abroad is recorded in a memorandum dated 29 August.

53. Both the original rough draft and the typed copy are now in the
files of the Director of Communications Research. See also
letter from Colonel Clyde L. Eastman to the Chief Signal Officer,
5 September 1940, ibid.

54. In the margin: "Safford agrees to this." This was a reference
to the Chief of the Navy Code and Signal Section, then Commander
L. S. Safford, U.S.N.
B. CRYPTOANALYTIC

It is presumed that the discussion of an exchange for this material would take place in this office. It is recommended that we exchange any and all material that we have on a basis of complete reciprocity, the same to be upon specific exchange of specific items and not upon the basis of an exchange of information of a general character. It is further recommended that any attempt at exchange of cryptanalytic material only be undertaken in a joint conference between the Army and the Navy on the one hand and the British on the other. The fact should be kept in mind in this exchange that the British are not at war with Orange and questions of policy enter into whether or not disclosure of vital information with respect to Orange would be detrimental to the National Defense.

C. TRAINING MATERIAL

It is recommended that similarly an exchange of training literature on the subject of cryptography and cryptanalysis be made on a reciprocal basis.

D. GENERAL CRYPTOANALYTIC TECHNIQUE

It is recommended that there be a reciprocal exchange of information concerning mechanisation and machinery for cryptographic procedures.

E. EXCHANGE OF INTERCEPT TRAFFIC MATERIAL

An exchange of traffic so as to provide the widest possible coverage of material of interest would be desirable. It would be of especial value to us to have traffic of a tactical nature from the German, Italian, and Japanese armies.

55. Japan. As will be clear a little later, information on Japanese cryptanalytic activity was sent to the British in 1941.

56. In the margin: "Safford does not agree."

57. In the margin: "Safford questions advisability."

58. In the margin: "Safford opposes."

59. In the margin: "Safford does not oppose."
From this memorandum it is clear that Colonel Akin and Mr. Friedman had already discussed the matter with Commander L. S. Safford of the Navy Code and Signal Section; that the latter was less willing to collaborate with the British than his Army colleagues, but that even they were by no means ready to recommend a full exchange of information. The memorandum, however, had not yet been submitted to the Chief Signal Officer, Major General Joseph O. Mauborgne, temporarily absent from Washington on a visit to Fort Monmouth, when an expedite radiogram for the Chief of Staff arrived in Washington from Major General George V. Strong, then in London. The text of this radiogram has not been located, but its contents are sufficiently known. What happened upon its receipt will best be understood from a letter written on 5 September 1940 to General Mauborgne by Colonel Clyde L. Eastman, then Executive Officer, which was as follows:

An expedite telegram for the Chief of Staff from General Strong (in London) has just been received by General Miles. General Strong wants to know whether the Chief of Staff is willing to agree to exchange important Japanese, German, and Italian intercept traffic and complete technical information as to the cryptographic systems used therewith. General Miles has authorized sufficient delay to enable me to write and ask you for a statement of your views. He stated that he did not believe that he could, under the circumstances, await your return Sunday.

While the matter was under consideration, he directed that Akin take the radiogram to Admiral Anderson of Naval Intelligence for a statement of the Navy's views. Admiral Anderson told Akin to tell General Miles that the Navy's

60. Brigadier General Sherman Miles, then Assistant Chief of Staff, G-2.
"off-hand" answer to the whole project was an emphatic "NO."
He said, however, that he would later provide General Miles
direct with "a considered answer." Admiral Noyes was
present at the conference between Admiral Anderson and Akin.
Admiral Noyes said very little, but was in seeming agreement
with Admiral Anderson.

I am enclosing a copy of a memorandum that Akin and
Friedman prepared and submitted to you several days ago.
Commander Safford's comments, indicating the probable Navy
attitude, are typed in the margin. It seemed possible that
you would like to have this for consideration at this time.

What answer was ultimately sent by the Chief of Staff to
General Strong is unknown, but it is quite clear that during the
next few months negotiations continued and the objections to col-
laborate were eliminated. A memorandum of the President to General
Marshall is of interest:

THE WHITE HOUSE
WASHINGTON

MEMORANDUM FOR
GENERAL MARSHALL:

Some time ago the Prime Minister stated that our cipher
experts of the United States and British Navies were in close
touch but that he was under the impression that there was not
a similar intimate interchange between our two Armies. I
wonder if you could take this up with General Dill and let me
know.

F. D. R.

61. Admiral Noyes was Director of Naval Communications and was thus
the superior of Commander Safford.

62. The inclusion has already been quoted in full. This reference
to the memorandum in a document dated 5 September 1940 is the
only means of dating it.
The Chief of Staff evidently sent the memorandum to General Strong, by that time Assistant Chief of Staff, G-2, for the latter replied on the same date in the following memorandum:

July 9, 1942

Memorandum for: Chief of Staff

1. Reference is made to attached memorandum for General Marshall, dated July 9, 1942.

2. Intimate interchange of technical cryptanalytic information between the British and the American armies has been in progress for over a year, and appears to be quite satisfactory to both sides. Studies and conferences pertaining to a similar exchange of technical cryptographic information to facilitate communication among the American Army on the one side and the RAF and the British Army on the other side in all echelons have been in progress for about three months, and will be completed very soon. If interchange of similar material appears to be more advanced between the British Navy and the American Navy, it is because actual intercommunication between these two services has been necessary for a much longer period of time.

George V. Strong
Major General
Assistant Chief of Staff, G-2

It should be noted that at this date (July 1942) exchange of cryptanalytic material had been in progress for more than a year, as will shortly be described. Exchange of cryptographic material, however, was on a much more limited basis. Early in January a policy in this regard was established, as will be noted in the following extract.63

63. See letter of Chief Signal Officer to Officer in Charge, War Plans and Training Division, Office of the Chief Signal Officer, 15 January 1942, from which the quotation is taken.
IV. The SIS from December 1941 to July 1942

The details of the cryptographic methods employed for high command communications should preferably not be divulged to allied powers, nor is it believed to be mutually advantageous for an exchange of information between allied powers on such cryptographic methods. Complete interchange of field codes and ciphers is frequently of value, particularly when deciding upon the selection of a system for joint use. It is believed that such an exchange between the United States and the United Kingdom has taken place. However, it is definite that no interchange of information reference high command cryptographic methods has taken place here in Washington. The Navy Department advises that the same policy is in effect both here and in London. It is believed that the United States military and naval representatives in London should again be advised that no such interchange of information has been made here nor is it contemplated, and that no interest should be exhibited on their part to inquire into the British high command cryptographic methods.

Further details on the subject of liaison in the cryptographic field will be dealt with in Volume Eight. At this point it is sufficient to state that liaison in the cryptanalytic field was practically unreserved and unlimited; in the cryptographic field it was limited by considerations dictated by the need for national security as viewed by the American high command.
HEADQUARTERS BUILDING
ARLINGTON HALL STATION
Spring 1945
A. The Search for a Site

Before the entry of the United States into World War II, the Signal Intelligence Service occupied quarters on the third floor of the Munitions Building. As these quarters were already crowded, tentative plans were made for transferring the Signal Intelligence Service to the Pentagon Building as soon as that structure should be completed. These plans were never carried out, however, owing to the fact that the space assigned (15,000 square feet) in the new building, though more extensive than that in the old, was recognized as inadequate for the potential needs (35,000 square feet) of an expanded organization. After preliminary discussion within the Office of the Chief Signal Officer and with representatives of G-2, a directive for the expansion of the Signal Intelligence Service, already mentioned in the preceding chapter (page 84), was issued on 18 April 1942. This directive stated in part:

"It is desired that a study be made looking to the removal of your Signal Intelligence Service activities now established in the Munitions Building to a place outside of the city of Washington where it will be more secure from bombing or from the attentions of enemy agents. This site should preferably be not more than one hour and thirty minutes journey by automobile from Washington and, if practicable, in the vicinity of your Eastern Primary Monitoring Station."

The provisions of this directive limited the choice of a location, but several properties were investigated in the Washington area and proved unsatisfactory for one reason or another. The campus

of Hood College in Frederick, Maryland seemed most suitable, but the
trustees of the college entered strong objections on the ground,
doubtless completely justified, that the use of the property by the
Government would mean the end of the institution. Moreover, the town
of Frederick was not large enough to absorb the burden of providing
housing for the personnel of the Service.

The site ultimately selected came to the notice of the authorities
by fortuitous means. Almost immediately after the issuing of
the directive, a party of officers, among whom was Major (now Colonel)
Harold G. Hayes, then Executive Officer of the SIG, were returning
from an inspection of the proposed site for the monitoring station
at Vint Hill Farms, near Warrenton, Virginia. Their attention was
drawn by chance to the grounds of the Arlington Hall Junior College,
at 4000 Lee Boulevard, Arlington. The Junior College was a Virginia
corporation organized for profit, but it had generally been operated
unprofitably, and was in the hands of a receiver. The property was
not, however, on the market, and no governmental agency had suggested
the site for possible purchase. A preliminary inspection of the grounds—
on which had been erected a large four-story school building, a gym-
nasium with swimming pool, a riding hall, a power plant, and three
residences, in addition to a number of smaller buildings—convinced
the members of the party of officers of the suitability of the site
and structures for utilization by the expanding Signal Intelligence
Service. The property was therefore immediately inspected by
Brigadier General (now Major General) Frank E. Stoner, Director of
the Army Communications Service, and Colonel Frank W. Bullock, Chief
of the Signal Intelligence Service, who recommended that it be
acquired. After further inspection and approval by representatives
of G-2 and of the Chief Signal Officer, and by Colonel J. J. O'Brien,
Chief of the Real Estate Division of the Corps of Engineers, action
was taken to have the Real Estate Division purchase the property.
The transactions were handled by the Division Chief rather than by the
Division Engineer, as is customary.

An attempt was made to obtain the property without condemnation
under the War Powers Acts, but the Arlington Hall Junior College be-
lieved that the buildings and grounds (approximately 58 acres) were
worth $840,000, whereas the War Department appraised them at more
nearly $600,000. A Declaration to Take was therefore filed in the
Federal District Court at Norfolk, Virginia on 7 June 1942, and
a Right of Entry was obtained shortly thereafter. The final price
for the property was set by the court at $650,000.

B. The Move to Arlington Hall

A small guard detail of 14 enlisted men and five officers, drawn
from the personnel of the Signal Intelligence Service and under the
command of Second Lieutenant (now Major) Scott F. Runke, took possession
of the property on 14 June 1942. Arlington Hall Junior College, then
under the management of Mr. T. L. Hayworth, the receiver, continued to hold title and possession of miscellaneous personal effects, Mr. Hayworth and certain employees were given a reasonable time to dispose of the property and find quarters elsewhere. Lieutenant Hinkle and the Guard were charged with the protection of the Government's interests. As it appeared very much to the advantage of the War Department to procure most of the personal property (furniture, office equipment, kitchen equipment, etc.) belonging to the school, a request for procurement authority was routed to the Procurement Division, Office of the Chief Signal Officer. Upon approval by the Fiscal Director, $40,000 was appropriated for the purchase, which was consummated on 27 June 1942, and the Signal Corps then obtained complete possession of the Arlington Hall property.

Immediately afterward the Supply Unit of the Signal Intelligence Service, then a component of the Code Compilation (C) Section, moved from the Munitions Building to Arlington Hall Station. At the outset, the Supply Unit performed all necessary utilities services for the Post as well as those pertaining to operations of the Signal Intelligence Service. Second Lieutenant (now Lieutenant Colonel) Russell H. Horton was officer in charge of the Unit at that time.

Arlington Hall Station, with Colonel Bullock as Commanding Officer, was activated as a military post under the Military District of

Washington on 8 July 1942, when the Headquarters of the 2nd Signal Service Company was transferred from the Munitions Building. On 25 July 1942 Major (afterwards Lieutenant Colonel) Charles H. Blackmon was assigned to the Signal Security Division (as the SIG had come to be called) and designated as Assistant Commandant, AIS. To Major Blackmon was delegated responsibility for the program of physical rehabilitation and expansion of Arlington Hall Station. He also served as deputy for the Chief in other matters pertaining to the Signal Security Agency.

The main school building, though subsequently remodeled to a limited extent, has not been fundamentally changed since it was taken over. It is a four-story L-shaped structure, situated some distance from the highway (Lee Boulevard), from which, in winter, the four Ionic columns of the facade make an imposing appearance. The ground floor at that time contained a number of offices for the use of the school authorities as well as a larger room known as the Chapel, in which there was an organ, later removed. In the basement were storerooms, and in the wing, a cafeteria and kitchen. School rooms occupied the fourth floor, but on the second and third floors were dormitory suites consisted of two bedrooms, each approximately 16 feet square, provided with double closets and with a bathroom located between each

3. In the summer season Arlington Hall was operated by the previous owners as a hotel.
pair of rooms. It was intended to install all of the operating units of the Signal Intelligence Service in this building, at least temporarily, with the exception of the Supply Unit, which was to be installed in the riding hall.

Following the transfer of the Supply Unit various other units of the Signal Intelligence Service began to be moved into the new quarters. Among the first were some newly activated units of the Cryptanalytic (B) Section, which occupied rooms on the third and fourth floors of the west end of the main building. Units of the Cryptographic (C) Section were accommodated in the wing. One of the ground floor offices was reserved for the use of the Chief Signal Officer, then Major General Dawson Olmstead, on the occasion of his frequent visits. During July and August 1942 units were at irregular intervals moved and installed in the new quarters. The final move was made on Sunday 24 August 1942, when the remaining parts of the Signal Intelligence Service (the bulk of B Section and all of the Administrative Section) were moved together, and the Munitions Building ceased to be headquarters of the Signal Intelligence Service. During the period of transition shuttle bus service was maintained between the Munitions Building and Arlington Hall Station on an hourly schedule.

C. Rehabilitation and Construction Work

Conferences held in June 1942 between Lieutenant Colonel (later Colonel) Rex W. Knecker and Major Blackmon of the Signal Intelligence
Service with Lieutenant Colonel Edmond K. Daly and Lieutenant Colonel
Whitney Ashbridge, representing the Chief of Engineers, Lieutenant
Colonel Clarence Renshaw, District Engineer, and Lieutenant Colonel
Eben S. Longfellow, Area Engineer, resulted in immediate commencement
of work on the rehabilitation of the main school building to install
adequate lavatory facilities and prepare the building for official use.
Approval of the Chief Signal Officer and of the Commanding General,
Services of Supply was immediately obtained, and funds in the amount of
$200,000 were appropriated for the conversion of existing facilities,
including the laying of a concrete floor in the large riding hall and
the installation of offices and lavatories for the Supply Unit in that
building. These improvements converted the structure into a warehouse
adequate for the supply requirements then anticipated. This work was
substantially completed by 1 August 1942, but the installation of new
lavatories in the main building was not completed until late in September.
With the completion of the transfer to the main school building,
which prior to that time had been more than adequate for housing all
offices then located at Arlington Hall, became very crowded. For ex-
ample, a unit then known as B-II-a-3, which at the time included three
officers, two enlisted men, and eight civilians, was crowded into two
former bedrooms with their connecting bathrooms. In addition to the
desks of the 13 persons, this unit possessed heavy filing cabinets and
some other very bulky equipment, which filled all available space and
made operations very difficult. This crowding did not, however, mark a
change from conditions which had obtained in the Munitions Building.

One of the officers mentioned, who had reported for active duty on 21
July 1942, could not be accommodated at the Munitions Building and was
therefore sent to Arlington Hall for temporary assignment in advance of
the unit to which he was to be assigned. Moreover, this building, origi-
nally constructed for far different purposes, was not ideally suited
for use as office space by units which required heavy equipment. The
operations of the Tabulating Machinery Unit, which had been installed
on the ground floor, were a constant threat to the building because of
the unusually heavy strain placed on the flooring by the machinery of
that Unit.

It therefore became imperative that new construction be initiated
to house the operating units, which by the time such construction could
be completed were expected to have greatly expanded their staffs. The
planning and necessary preparation for this construction were obtained
very quickly through a series of informal conferences held during the
latter part of July 1942 by Colonel Bullock (then Chief of the Signal
Intelligence Service), Colonel Winkler, and Major Blackmon, with
Colonel Daly and Lieutenant Ashbridge of the Construction Division,
Office of the Chief of Engineers. Arrangements were made by Major
Blackmon for the establishment of a "triple A" priority credit for con-
struction materials with the Army, the Navy, and the Munitions Board.
Approval of the project by C-2, by the Chief Signal Officer, and by
Excavation of Central Portion of "A" Building -
Looking South.  5 September 1942.

Construction of EM Barracks.
12 September 1942.
Field Kitchen... 10 October 1942.

Chow Line Inside Mess Hall.
10 October 1942.
Completed EM Barracks - from Post Road
Parallel to Glebe Road. 10 October 1942.

Interior of an EM Barracks.
24 November 1942.
Interior of Second Floor, Wing 8,
"A" Building. 6 November 1942.

IBM Unit of B Section Being Moved.
26 November 1942.
Diesel Motor with Attached Generator for Emergency Power. 26 November 1942.
Headquarters, Services of Supply was then obtained and the construction directive was issued through Engineer channels. Construction was by the firm of John McShain, Incorporated.

By 4 September 1942 ground was broken for construction of Operations A Building, which was designed to accommodate approximately 2200 persons. This building, 6074 feet long by 2393 feet wide, covered an area of 145,496 square feet and provided 239,114 square feet of floor space. There were two floors in the building and under one of the eight wings a basement with a fireproof vault containing 64,6 square feet. The plan of the building consisted of a headhouse fronting the eight wings, which faced with the basement under wing 1, 17 wings in all, each 1914 feet long and 473 feet wide. Access to the wings was provided from the headhouse, the wings were connected by transverse corridors near the opposite end. Space for 57 offices was provided on the first floor of the headhouse, for 58 on the second floor, and for a single storeroom, a large fireproof vault, in the basement. This made a total of 126 offices in the headhouse. These offices provided 28,856 square feet on each floor. Construction was similar to that of other temporary buildings then being erected in Washington by various agencies. In some cases wings were subdivided into smaller rooms, but the majority remained undivided. The decision to leave the wings undivided proved a wise measure, for when units expanded or contracted, all that was necessary was to change the number of square feet assigned to a unit. Had partitions been installed, the problem of moving would have been
complicated by the necessity to consider the size of the rooms as well as propinquity to other units. With no partitions, space was allocated efficiently and utilized to a maximum degree without waste.

On 15 November 1942, wings 7 and 8 were ready for occupancy and two days later the IBM Unit of B Section and the Laboratory (D) Section were moved in. As rapidly as room became available, other units located in the main school building, now designated as Headquarters Building, were moved into the new quarters, and the main building was restricted to use by administrative units.

An emergency power plant of 450 kilowatt capacity was procured and installed in a specially constructed reinforced concrete vault in Operations A Building. This unit was designed to provide power automatically for critical operations should normal power sources fail.

Thirteen barracks for enlisted men, together with a mess hall, dispensary, and post exchange, were constructed concurrently with the first work on Operations A Building. By 1 November 1942 a group of these buildings was ready for occupancy, and the enlisted men of the Second Signal Service Battalion, who had been until then on consignment of rations and quarters, were assigned to live in the barracks. A field kitchen was established, and an Army Mess was operated by the Battalion.

4. For the pictorial record of week-to-week progress on this construction, see Pictorial History of the Signal Security Agency; Construction work at Arlington Hall Station 1942-1943.

Excavating for "B" Building.
12 December 1942.

Adverse Winter Weather Conditions - Bulldozer Clearing Mire off Road.
1 January 1943.
Rapid Progress of Construction - "B" Building
Only 26 Days after Ground Was Broken.

South Side of "B" Building -
40 Days after Ground Was Broken.
By 8 November 1942 plans were made for further expansion of
civilian personnel to 3633 employees to carry out the mission of the
Signal Intelligence Service. It was realized that an additional opera-
tions building would be necessary to house these workers and their
equipment. A directive for the construction of a building similar to
the original Operations A Building was sought and obtained. Because
an experienced Area Engineer organization, headed by Captain (later
Major) Tracy C. Coleman, Corps of Engineers, was in existence on the
Post, and John McShain, Incorporated, who were in the process of com-
pleting a Building, were also already on the site, it was possible to
attain greater speed in the construction of the new building than in
the case of the first Operations building. Ground was broken on 4
December 1942, and in spite of adverse winter weather conditions, the
construction progressed very rapidly.

Operations B Building was designed to be similar in size and con-
struction to Operations A Building, though the plans are not identical
and the size was somewhat smaller. The following table provides a
comparison of the two buildings:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>A BUILDING</th>
<th>B BUILDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>607'6&quot;</td>
<td>446'6&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>239'6&quot;</td>
<td>239'6&quot;</td>
</tr>
<tr>
<td>Area in square feet</td>
<td>239,114</td>
<td>218,297</td>
</tr>
</tbody>
</table>

Number of Floors: 2 (and basement) 2 (and basement)
### Arlington Hall Station

**Number of Wings:**
- **First floor:** 8
- **Second floor:** 8
- **Basement:** 1
- **Total:** 17

**Size of Wings:**
- **Length:** 191'6"
- **Width:** 47'6"

**Number of Offices in Headhouse:**
- **First floor:** 67
- **Second floor:** 58
- **Basement:** 1 (vault)
- **Total:** 126

**Area of Headhouse in Square Feet:**
- **First floor:** 23,856
- **Second floor:** 23,856
- **Basement:** 4,446
- **Total:** 52,158

The Supply Section carried out the huge task of equipping the two buildings. Operations B Building was fully occupied by 1 May 1943, following partial occupancy as early as 3 March 1943.

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6. During this period the Supply Section also contracted for research and development of technical equipment worth millions of dollars. The overseas detachments of the Second Signal Service Battalion were also greatly aided by the special shipments made to them from Arlington Hall Station during 1942 and 1943.

7. At the same time that Signal Intelligence Service activities at Arlington Hall were expanding rapidly, two other Signal Intelligence installations were undergoing development under direction from Headquarters at Arlington Hall Station. The first of these was the Class IV installation designated as Vint Hill Farms Station, which was the site of the Eastern Primary Monitoring Station as well as of the Cryptographic School for military personnel. The latter had been transferred from Fort Monmouth on 5 October 1942. Two Rock Ranch, Petaluma, California, which was activated as a Class IV installation on 27 August 1942, was the location of the other major monitoring station of the Signal Intelligence Service.
D. Later Building Programs

In June 1943, as a result of the assignment to Arlington Hall Station of 550 enlisted women, a minor construction project was initiated to convert 13 existing barracks for use of enlisted women, including provision for a Beauty Shop. It was also necessary to construct in a separate area six theater-of-operations-type barracks for the enlisted men who were to be retained as well as latrine and supply buildings. New construction was also initiated by Headquarters at Arlington Hall Station for 150 enlisted women at Vint Hill Farms Station and 100 at two Rock Ranch. The troop housing which began at Arlington Hall Station early in August, was entirely complete by 10 October 1943.

Other construction initiated in 1943 included a one-story addition to Wing 1 of Operations A Building, 23 x 70 feet in dimensions. Completed in September 1943, this addition provided adequate paper storage for the printing plant. A small addition to telephone facilities was also necessary in September 1943, the increase of traffic having exceeded the capacity of the new switchboard installed in November 1942.

On 3 January 1944 a directive was received authorizing an increase in military strength of 700 enlisted women and 200 officers and an increment of 2275 civilian employees. This authorization had been anticipated by the Commanding Officer, and a comprehensive plan had already been drawn up and presented to the U.S. District Engineer with a request for more space to accommodate the additional personnel and equipment.
The master plan, prepared by the District Engineer in collaboration with Lieutenant Colonels Slack and Johnston and others, called for the construction of 13 mobilization-type barracks, an industrial-type dispensary with 14 beds, a 620-seat auditorium and theater, a troop administration building, a mess hall, a new exchange building, a new motor repair shop, a new Post Engineer office and shop, a recreation building, and a warehouse with 9000 square feet of storage space. Because a large proportion of the new employees were recruited to work on the swing and graveyard shifts, it was not necessary to provide additional space for offices or operations. Additional cafeteria facilities, however, were an obvious necessity.

The need for the construction requested was investigated on behalf of the Chief of Staff by Colonel John H. Stutesman, GSC. A thorough investigation was conducted, and a meeting was held to examine the different points of view as to the project. The Service Command favored adherence to theater-of-operations construction without central heating, while the plan submitted by the Commanding Officer, Arlington Hall Station, called for mobilization-type construction, including a central heating plant. Colonel Stutesman's report recommended approval of the plan submitted by Colonel Corderman with the exception of one item (an enlarged gravel parking lot). A directive for the new construction was forthcoming on 15 February 1944, and the work commenced on 4 April 1944. By 19 May 1944 the project, which was carried out by two different contractors, was 52 per cent complete. Although work on the cafeteria
addition was slow by reason of the necessity for continuing food service while alterations were in progress, the project on 23 June 1944 was 93 per cent complete, and by 15 July 1944 substantially all work was finished.

The following is a list of the various buildings which were in existence before the Army took over, or which were ultimately completed at Arlington Hall Station. The letter "C" refers to a cantonment building, "P" to a permanent building, and "T" to a temporary building.

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Type</th>
<th>Number</th>
<th>Name</th>
<th>Type</th>
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<tr>
<td>1</td>
<td>Headquarters</td>
<td>P</td>
<td>311</td>
<td>Barracks, EW</td>
<td>T</td>
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<td>50</td>
<td>Quarters No. 1</td>
<td>P</td>
<td>312</td>
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<td>100</td>
<td>Post Exchange</td>
<td>C</td>
<td>314</td>
<td>Barracks, EW</td>
<td>T</td>
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<tr>
<td>101</td>
<td>Recreation Hall</td>
<td>C</td>
<td>315</td>
<td>Barracks, designed</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>Theater</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>110</td>
<td>Warehouse</td>
<td>P</td>
<td>316</td>
<td>Barracks, designed</td>
<td>T</td>
</tr>
<tr>
<td>111</td>
<td>Old Fire House</td>
<td>T</td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td>Quarters</td>
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<td>113</td>
<td>Tailor Shop</td>
<td>T</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>114</td>
<td>Engineer's office</td>
<td>C</td>
<td>401</td>
<td>Operations A</td>
<td>C</td>
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<tr>
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<td>and Shops</td>
<td>C</td>
<td>402</td>
<td>Cafeteria</td>
<td>C</td>
</tr>
<tr>
<td>115</td>
<td>Dispensary</td>
<td>C</td>
<td>410</td>
<td>Incinerator</td>
<td>P</td>
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<td>New Boiler Plant</td>
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<td>450</td>
<td>Operations B</td>
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<td>300</td>
<td>Beauty Shop</td>
<td>T</td>
<td>506</td>
<td>WAC Administration</td>
<td>C</td>
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</tbody>
</table>

8. For details, see Letter, Chief, Engineering Division to Post Engineer AIS, 11 Jul 46, subject, Transmittal of Cost Statement.
Construction projects which were completed in the Fiscal Year 1945 included the mobilization-type barracks, the new Theater, the Recreation Hall, and the addition to the cafeteria. The Theater was completed early in August 1944. The addition to the cafeteria, completed during August 1944, was affected without interruption to the full cafeteria program.

E. Maintenance and Administration

During the period from 1 August 1942 to 1 May 1943 the fact that there was a large Area Engineer office on the Post made the work of the Post Engineer of relatively little importance. Repairs and maintenance were at first cared for by the former school handyman, Mr. Joseph A. Lemons (died May 1945) and the grounds superintendent, Mr. Dayton M. Simmerly, who, together with labor crews, were hired by the Signal Corps when the property was taken over. These employees operated under the supervision of the Supply Unit. The first Post Engineer services at Arlington Hall Station were provided by the Commanding Officer at Fort
Myer, Virginia in September 1942, when an officer was assigned for a portion of each day. At the same time, supervision of the custodial employees was transferred to the Post Engineer at Fort Myer, and they were placed on his payroll. After the final acceptance, from the Area Engineer, of Operations A Building and the troop housing, the work load of the Post Engineer greatly increased, and the force at his disposal, although augmented from time to time, was unable to keep pace with the increasing volume of work. Finally, after the completion of Operations B Building and the withdrawal of the Area Engineer, an urgent request was made by the Commanding Officer for improved Post Engineer service. The Third Service Command Engineer then took action to have an officer stationed at Arlington Hall Station for full-time duty as the Assistant Post Engineer, under the Post Engineer, Fort Myer, Virginia.

On 1 February 1943 a graduate of the Signal Intelligence School, Colonel W. Preston Corderman, until then Chief Postal Censor in the Office of Censorship, replaced Colonel Frank W. Bullock as Commanding Officer, Arlington Hall Station; as Chief of the Signal Security Division; and as Commanding Officer, Second Signal Service Battalion. On 17 February 1943 Lieutenant Colonel John B. Mathews, then Executive Officer and Adjutant of Arlington Hall Station, was replaced by Major (later Colonel) James E. Slack. In a reassignment of functions, Captain 9 (later Lieutenant Colonel) Joseph W. Johnston and Major Slack, 9.

9. Both Major Slack and Captain Johnston had served in the Postal Censorship under Colonel Corderman.
took over the responsibilities of Lieutenant Colonel Blackmon, who was relieved as Assistant Commandant on 17 February 1943.

At the time these changes in the command of the Signal Intelligence Service and Arlington Hall Station were affected, the bulk of the physical expansion of the organization had been completed and the personnel expansion was well under way. The following major administrative problems, however, remained to be solved:

1. Completion of the civilian personnel expansion then in progress.

2. Making provision for adequate feeding of thousands of civilian employees, including the serving of hot meals on a 24-hour basis.

3. Providing for the replacement of male military personnel with members of the WAV, including the necessary conversion of troop housing to the standards prescribed for women. This also included providing housing for the remaining enlisted men in a new location separated from the WAV area.

4. Increasing military strength by direct recruitment to fill an increased allotment of enlisted women.

5. Providing additional troop housing, training, and recreational facilities for the enlarged military strength.

6. Securing adequate transportation service for the constantly increasing personnel of the Post.

By the end of the Fiscal Year 1944 most of the major administrative problems pertaining to the expansion of Arlington Hall Station had largely been solved. Many new problems pertaining to operating methods remained, and a number of services, such as provision of adequate transportation, required constant attention to prevent a breakdown.
As soon as large numbers of military and civilian personnel joined the Post, problems of health, recreation, housing, food service, and public transportation demanded attention. As early as 1 August 1942 the station hospital at Fort Myer agreed to provide emergency medical care. Shortly thereafter the Medical Director of the War Department, Dr. F. C. Smith, equipped a small dispensary unit in the Headquarters Building and provided a nurse. A complete dispensary unit was included in the plans for each of the operations buildings, and the service provided in the autumn of 1942 was expanded. Medical care for military personnel was at first provided by the Fort Myer Station Hospital, but on 5 November 1942 a medical officer was assigned to part-time duty at Arlington Hall Station in the newly completed dispensary. By December 1942 a full-time medical officer was assigned, and on 22 May 1943 the 2505 Service Unit was activated, including a dentist and medical technicians.

The Post was possessed of certain recreational facilities which had been in existence under the Junior College, including a gymnasium with a swimming pool and several tennis courts. In the neighborhood and accessible were baseball diamonds, picnic grounds, and bowling alleys. The Arlington Hall gymnasium was used daily by the military personnel for basketball and swimming. The tennis facilities were improved and put to constant use, and baseball games were organized, for the officers as well as for the enlisted personnel. The drill field
was graded and seeded early in August 1944, and before winter weather had set in, it was used for retreat parades and ceremonies as well as for recreational purposes. On 12 August 1944 the new Post Theater was opened and daily showings of Army Motion Picture Films were inaugurated for the convenience of military personnel on both day and night shifts. The Recreation Hall provided a library and a lounge-ballroom, and a barracks was converted for use as a Hobby House, where interest in wood, metal, plastics, and leather work was developed by enlisted men and women through expert instruction. Late in the Fiscal Year 1945 a Camera Club was organized. A Duck Pin Bowling League, organized among the civilian employees on the Post in 1944, used alleys in Clarendon and in Colonial Village. Aside from amateur dramatics, an orchestra, and occasional dances, parties, and picnics, however, the problem of providing recreational facilities and organizing recreation on an Army Post for the civilian employees was never satisfactorily solved.

The Housing Office was opened on 1 December 1942 to take care of the multitudes of people in need of rooms, houses, and apartments. Prior to that time officer personnel had had the advantage of assistance from a housing office maintained by the War Department as well as from

10. Shows began at 1800, 2000, and 0100 hours. The Theater was also used for lectures (see volume of transcriptions of the "This is Our War" Series on file in the Historical Unit) and for USO entertainment.
the National Housing Administration, also available to civilian personnel. Long lists of rooms were now compiled, and contacts were established with the National Housing Administration to secure a supply of rooms in the dormitories for women at Arlington Farms, which were then under construction. The first dormitory at the Farms was ready for occupancy on 27 February 1943.

In October 1942 the shuttle-bus service on a half-hour schedule was extended to the Pentagon Building. Negotiations with the local bus companies for special service to Arlington Hall Station began soon after the Post was opened. The Arnold Bus Lines increased this special service in September 1942, as soon as the traffic warranted. Then, in November 1943, the bus drivers employed by the Washington, Virginia, and Maryland Coach Company (the Arnold Lines) went on strike against wage restrictions imposed by the War Labor Board, trucks and passenger cars of the Post Motor Pool, together with borrowed vehicles from Fort Myer and Vint Hill Farms Station, were used to transport employees from the terminal at Rosslyn, Virginia and other points in Virginia. The bus drivers were finally prevailed upon to return to work, and after two days the use of Government transportation was terminated.

An Employee Counselor was established in Post Headquarters in November 1942 to advise civilian employees in personal matters and to assist the Post management in personnel relations. This office was expanded to include a Recreational Counselor, and in 1943 Employee Counselors were established in the various branches.
An Emergency Loan Fund, jointly administered by the Fiscal Officer and the Chief Employee Counselor was established in January with small contributions from officers and civilian employees. This fund was very successful in helping civilian employees over minor financial emergencies. Its turnover was large and its losses negligible.

During the early days at Arlington Hall Station the problem of feeding the personnel other than enlisted had been solved, though not satisfactorily, in two ways. The Welfare and Recreational Association of Public Buildings and Grounds, Inc., then operating the cafeterias in the Munitions Building, provided box lunches at 26 cents each for those who wished them. Orders were taken daily at the beginning of work, but as the lunches were frequently late, it was never possible to predict the time of arrival. In the vicinity of the Post, however, were one small restaurant and two drug stores offering food service, and these were patronized by an increasing number of persons from Arlington Hall.

Despite the fact that neither the food nor the service of these establishments was satisfactory, patronage had increased to such an extent that they were no longer able to accommodate the large numbers. Arlington Hall Station possessed a cafeteria and kitchen of its own, but during July and August 1942 was without facilities to operate them. Accordingly, the Welfare Association was asked to operate the cafeteria. This operation began on 1 September 1942 and continued until 17 January 1943, when a new cafeteria building designed to serve 2500 customers was opened.

11. The cafeteria was placed at the West end of Operations A Building.
The most pressing problem confronting Arlington Hall Station as a whole in February 1943 was still the problem of providing an adequate food service. The new cafeteria was in operation, but its capacity of 2500 had, as a result of subsequent increases, been far exceeded. There were long lines at peak periods during the day and the Welfare Association made little progress in solving the problem of quick service and had few suggestions to offer to remedy the situation. Furthermore, the Association was unable to provide for the evening and night shifts, and with continued expansion of personnel, these shifts were becoming so large as to necessitate night food service.

The Exchange Officer, Major E. E. Ferguson, had developed a small $3,000 gross business (October 1942) to one grossing $30,000 a month in March 1943 (including income from the branch at Vint Hill). Accordingly, early in March 1943 Major Ferguson was asked if the Exchange could undertake the operation of the cafeteria and provide service adapted to meet the special requirements at Arlington Hall Station. Major Ferguson arranged for a survey by Major Adolph Bernardi, Restaurant Specialist of the Third Service Command. Negotiations with the Welfare Association failed to produce an agreement on its part to provide hot food at night, although the management expressed willingness to reopen the original school dining room in Headquarters Building, which had been closed upon the completion of the new Cafeteria Building. It was decided to have the Post Exchange undertake the operations of the cafeterias, and, with the help of Major Bernardi, personnel and
equipment were assembled for that purpose, with the reopening of a cafeteria in Headquarters Building on 3 May 1943 as the first objective. This was achieved, and the services of an experienced Restaurant Officer, Captain J. N. Hitzel, Jr. were secured for the Exchange operation. The Main Cafeteria was taken over by the Exchange on 1 June 1943, and shortly thereafter service was extended to provide an evening meal and later a midnight supper. Eventual enlargement of the Main Cafeteria Building in the summer of 1944 permitted the closing of the cafeteria in Headquarters Building as an aid to operating economy. The food service provided by the Post Exchange was gradually expanded to include: almost 24-hour service in the Main Cafeteria, service being suspended only from 1430 to 1630 hours; a grill in the Main Post Exchange; a grill in the Branch Exchange at Vint Hill Farms Station; and four coffee bars (two prior to March 1945) in the operations buildings.

During the early months of 1945 the Administrative Officer of Arlington Hall Station, besides the perennial problem of providing adequate food service, had the equally difficult task of maintaining transportation services for the ever-expanding personnel of Arlington Hall Station. During the period, new employees continued to arrive at a rapid rate, and most of the new arrivals were put to work on the swing and graveyard shifts. This required constant attention to scheduling

12. Captain Hitzel had previously managed a restaurant at Atlantic City. On 20 December 1945 he was awarded the Legion of Merit for his services at Arlington Hall.
of transportation, a task that had to be accomplished in the face of
a severe shortage of drivers, mechanics, and equipment. To cope with
the shortage of personnel on the Arnold-operated, Washington, Maryland,
and Virginia Bus Lines, a program was developed for the recruitment
among the employees of Arlington Hall Station of part-time bus drivers.
This program was successful, and at one time (May 1945) the Arnold Bus
Lines had approximately 30 part-time drivers among the employees of
the Signal Security Agency.

Every possible assistance was given the Restaurant Officer in
arranging additional food service for the enlarged swing and graveyard
shifts. On 1 January 1945 the Arlington Hall Exchange, which in ad-
tion to the Main Exchange and its subordinate services, operated
branches in the operations buildings, as well as the Main Exchange at
Vint Hill Farms Station, was deprived of its Exchange Officer, Major

Ernest E. Ferguson. The Exchange was then administered by Second
Lieutenant Harry C. Redding, who had been assistant to Major Ferguson,
with Captain Ritche reporting directly to the Administrative Officer.

The size of the Exchange operations at this time is indicated
by the sales volume during the month of December 1944, which

13. A Presidential Order assigned Major Ferguson to temporary duty
with the military forces occupying the facilities of Montgomery
Ward and Company in Detroit, Michigan. In spite of all efforts
on the part of the authorities at Arlington Hall Station, it
was not possible to secure Major Ferguson's release from his
temporary duty.
through camouflage or other deception, various measures were taken
during and after the War to keep the nature of the operations secret.
Security through secrecy discipline was one of the constantly recur-
ing subjects for staff discussion.

In order to maintain the secrecy of its operations, the Agency
relied upon careful selection of its employees, upon TAG clearance
policies, and upon oaths of loyalty and secrecy. Applicants, recruited
principally from universities, the United States Employment Service, and
professional organizations, before being accepted for employment, were
required to sign both the prescribed Civil Service Oath of Office (Tab
2e) and the special secrecy oath of the Agency (Tab 2f). Incoming
employees were then subjected to TAG clearance, which was designed to
eliminate all except individuals of:

1. Excellent character who were citizens, preferably native
   born, of the United States;
2. Who had no enemy connections with foreigners in the
   United States or foreign countries;
3. Whose loyalty, integrity, discretion and trustworthi-
   ness were unquestioned; and
4. Whose financial status and/or habits were such as to
   render unlikely their succumbing to any temptations
   arising from those sources.

To protect the Post from unauthorised entry, an armed guard was
established at the time the AHS property was purchased. A double wire
net fence, equipped with a sensitive burglar-alarm system, was built
around the entire area, so that entrance could be had only through one of
four gates, where guards were stationed with instructions to admit no one.
except upon proper identification. Responsibility for the physical
security of the Post was delegated to the Provost Marshal.

On 28 July 1942 Arlington Hall Station, in Post Orders No. 2,
subject: Photographic Identification Badges for Civilian and Enlisted
Personnel, Arlington Hall Station, established a new system of photo-
graphic identification badges (see Tab 2a) with distinctive colored
mats to indicate the various categories of cleared and uncleared
personnel. These were issued at once to all employees on duty at
Arlington Hall Station. A few days before the transfer of the main
block of SIS units to Arlington Hall Station instructions concerning
the new identification system were issued in a memorandum dated 12
August 1942 and signed by Major Charles M. Blackmon, Assistant Command-
ant, Signal Security Division, as follows:

1. The new colored identification badges will be worn
by civilians and enlisted men at all times that the holder is
on the grounds or in the buildings of this station. The
proper place to wear the badge is 6 inches below and to the
left of the chin, so that the guards can easily see the

14. 1st Lieutenant Scott F. Bunkle was appointed the first Provost
Marshal of Arlington Hall Station on 14 August 1942. He was
followed by 1st Lieutenant Jay W. Worrall, Jr. (11 May 43 –
18 Dec 45) and later by 1st Lieutenant Robert H. Kivett (18 Dec 45 –
22 Jul 46).

15. Memorandum, Assistant Commandant, SSO to all Military and Civilian
Personnel, 12 August 1942, sub: Memorandum
picture, number, and color of the badge. It must be remembered that checking identification is an important factor in the security of this station. To facilitate this is the obligation of all concerned.

2. It is the responsibility of all persons in restricted areas to see that an authorized person is present in each room during working hours. Since electricians, plumbers, etc., are required to work in all parts of the building at present, restricted areas will be construed as being only those rooms in which classified material or equipment is located. Hallways will not be considered restricted areas. These workers will wear either: (1) U.S. Government Employee orange badges; (2) Temporary Duty Badges; or (3) Visitor's Badges. They will be permitted to enter any room requiring their services after they have knocked and proper security measures have been taken by those working inside.

It will be noted that in this memorandum no mention is made of badges for officers. During the period when the Signal Intelligence Service had been housed in the Munitions Building, admission to that building had been granted to officers upon exhibition of their AGO card; to enlisted men doubtless on the basis of the same identification, while civilian employees wore the regular War Department identification badge equipped with photograph. Personnel of the SIS, however, were furnished, in addition, special card passes also having a photographic likeness of the bearer. After the move to Arlington Hall Station began, SIS personnel continued to use these passes for admission to both the SIS areas in the Munitions Building and to
Arlington Hall Station. At the time when the memorandum on the new identification system just mentioned was issued, all personnel, including officers, were actually issued badges of identical type, differing only in color for the different categories of restriction, but officers were not at first required to wear these badges, merely to present them for inspection by the guard at the entrances to the Post and to restricted areas. 16

When the operations buildings were completed in the spring of 1943, new regulations were issued safeguarding the security of those areas. On 25 February 1943 the Executive Officer, Signal Security Service (Major J. E. Slack) issued a memorandum for all section heads, as follows: 16a

16. It is probable that officers were first required to wear their badges in the same manner as other personnel about the time when "B" Building was opened for use in May 1943.

16a. Memorandum, Executive Officer, OSS for all Section Heads, 25 February 1943, sub: Entrance Requirements, Issuing of Badges.
1. Effective this date, entrance to the post will be regulated as follows:

   a. Entrance to the grounds or buildings other than operations buildings by visitors on official or legitimate business may be authorized by any commissioned officer (as previously).

   b. Entrance to operations buildings by visitors will be restricted to those persons whose business cannot possibly be transacted elsewhere. Only section heads or their designated assistants may authorize the entrance of such persons. The visitor will be issued a "visitor's badge" and must be accompanied while in the building (as heretofore), but no special pass from Headquarters Building will be required.

2. Permanent employee badges will, in the future, be issued by the Provost Marshal's Office—Room 118, Headquarters Building. For your reference, the procedure is briefly outlined:

   a. New employees not permanently assigned to sections will be issued numbered "temporary duty" badges (usually yellow).

   b. When these employees are assigned permanently to an operating section, they will be issued numbered photogenic badges. This step will follow notification by the Personnel Department that such persons have been cleared.

This memorandum clarified the policy regarding admission to the restricted and non-restricted areas and prepared the way for the consolidation under the Provost Marshal of all responsibility for the preparation, issue, and collection of identification badges, which had previously been dispersed among the Personnel Section, the Laboratory Section, and the Provost Marshal. The practice of admitting field grade officers to the Post merely upon recognition by the Guard was ended on 10 March 1943.
by a directive from the Executive Officer. By 22 March a Badge Department had been set up in the Office of the Provost Marshal, with Mrs. Marie F. Gaydon in charge, and more precise identification badge procedure was established.

In March 1943 a question arose as to what office should be authorised to approve or disapprove those employees whose investigation placed them in the doubtful category. There seemed to be no well-defined channel for such matters in that both the Adjutant's Office and the Personnel Section had on various occasions approved or disapproved assignment to one of the operations sections of persons whose records were doubtful. The Provost Marshal on 27 March 1943 addressed a memorandum to the Assistant Executive Officer (Major Joseph W. Johnston) requesting a clarification on the point at issue so that a "well defined source of authority" might be established from which to recognize persons as 'cleared' for purposes of issuing red badges. This memorandum was indorsed on 29 March by the Adjutant, SSS (1st Lt. James F. Best, Jr.) as follows:

The final authority and responsibility for the clearance of both military and civilian personnel is a function of the Adjutant.

17. Memorandum, Executive Officer, SSS for all Field Grade Officers, 10 March 1943, no subject.

In March 1943 a Post Intelligence Officer was designated, who was charged with all security aspects of the Signal Security Service and Arlington Hall Station except physical security, which remained the function of the Provost Marshal. It was the responsibility of this officer also to handle security instructions and orientation courses for civilians.

The completion of the operations buildings and the influx of great numbers of newly recruited employees made it necessary in April 1943 to change the badge color code system and to further "tighten up" regulations. Both operations buildings were surrounded with wire net fences, each with two gates and guard stations, and on 21 April 1943 the checking of identification badges, which had previously been done at the main door to Operations A Building was accomplished at the gates instead. The new identification system was designed to indicate both the employee's clearance status and the particular area to which the employee was assigned, so that it might be possible in each operations section to "spot" individuals not authorised to enter that section. A two-color code system was adopted and from that time until 21 December 1943, except through specific authorisation of a section head, only persons wearing a badge with a red top were admitted into the operations buildings. On 21 December 1943 a new color code was

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6. Effective 13 Dec 43 FORGOTTEN BADGE badges were issued in place of the TEMPORARY DUTY badges formerly issued (Nov 42 - Dec 43) to persons who came to work without their regular badges. BLACK indicated admittance to unrestricted areas, YELLOW admittance to restricted areas.

9. From 25 Feb 43 persons having legitimate business on the POST were issued a VISITOR badge. All visitors were under escort in restricted areas.

10. Effective 14 Apr 44 uncleared military personnel in the branches for training were issued badges bearing a RED "S" with mat of branch color.

11. From 6 Dec 44 badges were issued to five new branches. The color of the top half of the badges indicated clearance, as formerly. The lower half designated the branch. SILVER was used to indicate Personnel Branch, BROWN and RED (Right above) the General Cryptanalytic Branch.

YOUR BADGE IS IMPORTANT!

This is your badge. You'll need it to get in the grounds and the place you work. Don't lose it. A lost badge in improper hands may endanger the post and those who work here.

Wear it conspicuously on the post. Guards are required to check badges. Wear yours as high on your left shoulder as possible. Always have it on your outer garment.

Never wear it off the post. We do not want outsiders to be familiar with our badges. Don't show yours or discuss it outside the post.

Scott J. S
Scott F. Runkle
1st Lt., Sig. C.
Provost Marshal.
1. Issued 12 Aug 42, the first AHS badges were of metal with solid color mats in RED, ORANGE, BLUE, YELLOW, and GREEN around picture, name and number.

2. Only personnel with all RED badges were permitted to enter restricted areas, except by specific authorization of a section head.

3. After 10 Apr 43 RED and WHITE badges were issued to Headquarters personnel with legitimate business in one of the Operations buildings.

4. On 21 December 1943 a new badge color code system was adopted. Two colors were used in the upper half of the badges, BLACK for admission to unrestricted areas, YELLOW for admission to restricted areas. The color of the lower half of the badges indicated the particular branch to which the wearer belonged.

5. In December 1944 the badge color code was extended to meet the needs of an expanding organization. Some badges were issued in three colors.

6. This RED, YELLOW, BLUE and GREEN badge with a picture of Collange was worn by Mr. Friedman to demonstrate the inherent weakness of badge systems.

7. Forgotten badges were a source of much trouble for everyone concerned. The DONKEY badges were designed by Major A.J. McGrail to help solve the forgotten badge problem. They were used for a brief period in September and October 1942. Number 12 was first used to show weakness of the badge system.
adopted in which badges with yellow tops designated cleared personnel while those with black tops indicated non-cleared personnel. This basic system, revised and expanded in December 1944, when distinctive badges were required for five new branches, continued until the end of the War.

When Operations B Building was occupied, a memorandum was prepared by the Assistant Executive Officer, SSS (Major Joseph W. Johnston) for the Provost Marshal further clarifying Agency policy as regards admission to the grounds and operations buildings, as follows:

1. Hereafter, visitors to Arlington Hall Station will be admitted or permitted to leave when accompanied by a commissioned officer possessing an Arlington Hall Station identification badge provided the officer assumes full responsibility for the visitor.

2. Any person having rightful possession of an Arlington Hall Station badge will be admitted at the outer gates upon presentation of such badge.

3. No person will be admitted inside the fence line of Operations "A" and "B" Buildings without presentation of the proper badge permitting access to those restricted areas. No visitor will be admitted unless expressly authorized by an officer to whom this authority has been delegated. Such officers are listed with the Provost Marshal and necessary copies of this list will be made available to the various guard posts. The visitor will be held at the fence line until called for by a commissioned officer escort designated by the officer authorizing entrance to the visitor.

4. The officer of the Guard may authorize entrance of uncleared mechanics, laborers, custodial employees, etc., to Operations "A" and "B" Buildings to perform necessary duties provided they are escorted at all times by a guard.

Memorandum, Assistant Executive Officer, SSS, for the Provost Marshal, 13 May 43, subject, Admission to Grounds and Operations Buildings.
THE SECURITY CHECK
Signal Security Agency Personnel
Arriving at Work
In Front of Operations "A" Building
Spring 1945
Owing to a shortage of cleared personnel, it was necessary frequently to admit some unclassified personnel to restricted sections for unclassified work. This practice was discussed by the staff in May 1943, but since employment of unclassified personnel in this manner was considered to be a matter of necessity, all that could be done was to use the utmost care in segregating such personnel. Colonel Cordeman requested that he be notified when uncleared personnel entered the operations buildings.

Through Post Orders No. 31, 27 November 1942, subject: Package Passes (Tab 2b) a system was introduced for checking on material carried by civilian employees or enlisted personnel from one building to another. On 10 April 1943 a system of permanent package passes was inaugurated and from that date on, pass stickers were no longer placed on packages but the bearer presented instead a card bearing his name and photograph for identification purposes. After the war, package passes were no longer required but packages were subject to investigation by the guards. Cameras were not permitted on the Post except by special authorization and no pictures could be taken except for official purposes.

In June 1943 a question arose concerning the responsibilities of the branch chiefs in relation to those of the Provost Marshal. It was decided that the responsibility of the Provost Marshal for the external security of the Agency would end at the gates of A and B Buildings and that the section heads and branch chiefs would be charged with the internal security of their respective organizations. Personnel were instructed not to enter sections where they had no official duties.
In some sections secret and confidential papers were not properly safeguarded. It was suggested to Colonel Gorderman that representatives of G-2 or of SOG should make a security check of Arlington Hall Station, but owing to restrictions set up by various offices, this proposal was never acted upon. However, during the week of 14 May 1945 the Agency itself, in order to test the adequacy of the security measures in force, planned and carried out its own security check. The following account of that security exercise is taken from the minutes of the Seventeenth Staff Meeting held on 22 May 1945:

In introducing the report, Colonel Slack discussed the exercise at some length. He said that two men from Vint Hill, T/5 Regan and T/5 Solek, were appointed to see what they could obtain in the way of classified material and information.

Colonel Slack continued with the report by displaying a sizeable collection of classified material, including badges, collected from the Post by the two men, and by giving an account of their activities. Arrangements were made for the two representatives to stay at a hotel, and they were given the suggestion that they might begin by applying for a job at the Post. This was the only assistance given, except for furnishing them with proper credentials in case they were apprehended. They were completely unfamiliar with the physical set-up of the Post and inexperienced in the type of project they were undertaking.

On Monday morning, 14 May, they came to the front gate, attired in civilian clothes, and told the guard they were looking for employment. An officer in the Personnel Branch authorized them on the Post, and they were given Visitor’s Badges. T/5 Regan and T/5 Solek became acquainted with the physical lay-out of the Post, visited the PX, and talked to the employees. They discovered the type of badge required for entrance into the Operations Buildings and succeeded in obtaining extra badges left by employees on coats, in addition to their Visitor’s Badges, which they altered so they could gain admittance into practically any section on the Post.
Confining most of their activities to the swing and graveyard shifts when the personnel is scattered, they went through the various wings of both Operations Buildings and the basement of B Building, finding it easy to collect from desks and desk drawers classified material of all descriptions. Each day the material they obtained was turned into Lt. Jones, Post Intelligence Officer, so that none of it left the Post. During the time they were here they entered at random the different gates on the Post, and the various wings and sections, without being detected or challenged. At the close of their first day, the guard at the main gate called the Personnel Branch concerning the Visitor's Badges which were not returned, but this was not followed up. Of particular significance was the fact that the material which they took was not reported as missing.

This security exercise had an unexpected repercussion: news of it leaked out and an account of the test appeared in one of the Washington papers.

(Tab 2d) On the other hand, the inferences drawn from the incident prompted the staff and section heads to devise means of making employees more security conscious.

Lost and forgotten badges constituted two of the most persistent and onerous security problems during the war years. In order to impress upon all personnel the seriousness of losing a badge, to prompt more thorough search for lost badges, and to discourage the tendency of some persons to give away badges as souvenirs and then report them as lost, the Provost Marshal on 23 March 1943 recommended that a fine of one dollar be assessed persons who had lost their badges before a new one would be issued. Persons reporting to work without their badges were issued Forgotten Badge badges.

Among early badges of this kind were the Donkey Badges designed to shame the forgetful ones into giving more attention in the matter of bringing their badges with them to work. Later Temporary Duty badges were used
instead, but this practice was soon abandoned and from 6 December 1943 personnel who forgot their badges were sent to the Badge Section to receive badges appropriately colored for their respective sections and marked "Forgotten Badge". The situation as it existed on 19 November 1943 is stated in a memorandum from the Provost Marshal addressed to the Assistant Executive Office, AHS as follows:

1. Forgotten Badges.

a. More than 2,400 instances of identification badges being left at home by employees of this post have been recorded. The number of these instances rises steadily month by month.

b. It is believed that this increased looseness in handling of badges is due to lack of vigorous correction of habitual offenders. At present, the only corrective measure is distribution to all offenders of the attached letter.

c. It is understood that an occasional forgotten badge cannot be avoided. However, a high percentage of these instances are charged to persons who forget their badges habitually. The records show many persons who are ten-times or more offenders in this respect.

d. Recommend that these habitual offenders be dealt with more severely as the number of their delinquencies increase. AW 94 provides the means for handling military offenders; while 5 U.S. Code, par 563 lays down a "Table of Standard Penalties For Violation of Administration Regulations" on the part of civil service personnel. This table provides penalties ranging from one days suspension to dismissal, suggests measures for first, second and third time offenders.

2. Lost Badges

   a. Since the badge system was inaugurated, 213 badges have been lost out of about 10,000 issued or 2% plus. It is believed that this figure, compiled for a 14 month period, is a fairly low figure and one that cannot be greatly improved on.

   b. Recommend that a memorandum similar to the attached be issued with all new badges to impress on all concerned the importance of badge security.

   c. A new set of badges with new colors is being issued at the present time, and it is recommended that such reissues be made whenever the number of badges lost represents so great a threat to the post security that the cost is warranted.

3. Car Stickers

   a. It is believed that the present car sticker system weakens considerably post security. Yesterday, three persons were apprehended on the grounds without badges, all of whom entered the post in car-stickered cars. Many other instances of security violation, due to the irresponsibility of car-sticker holders may be cited.

   b. Recommend that stickers be issued to officers of Field grade only, since these officers make up a permanent and security minded group.

The recommended memorandum to be issued with all new badges read as follows:

ARLINGTON HALL STATION
OFFICE OF THE PROVOST MARSHAL
ARLINGTON, VIRGINIA

Subject: Identification Badges

To: All Persons Wearing Identification Badges.

   1. The attached badge represents your credential as an employee of this station. Your acceptance of this badge involves great responsibility.
2. Obviously, if you mislay your badge it is no longer an asset to you. Instead it becomes a dangerous liability, a menace to the war effort.

3. Each of us must respect his badge for what is it — a confidential instrument that must not be lost or forgotten.

4. Keep your badge in your wallet or coin purse when you are off the post. On the post see that it is fastened firmly near the left shoulder.

5. Post Regulations state that a charge of one dollar is to be assessed each person who loses his badge. This "fine", however, is a minute cost. Consider the cost to the country should your badge fall into hostile hands.

Jay W. Worrall, Jr.,
1st Lt., Sig. C.,
Guard Executive Officer.

In connection with postwar planning the Signal Security Agency was faced with the serious problem of preventing the unauthorized disclosure of classified information concerning signal intelligence matters. A number of security leaks had occurred following World War I, the most far reaching of which were the revelations made by Mr. Herbert O. Yardley in The Saturday Evening Post and in his book The American Black Chamber published in 1931. Serious publicity leaks occurred in connection with the story of the Battle of Midway and the Pearl Harbor Investigations. Further revelations were expected upon demobilization of personnel who had been connected with intelligence communication security activities during World War II. It was recognized that this problem would not be solved in so far as civilians were concerned until penalties were established through
legislative action. The Director of Communications Research (Mr. William F. Friedman) on 23 March 1943 sent the following memorandum to Colonel W. Preston Gorderman, Chief of the Signal Security Agency:

1. It has come to my attention that in several instances SSA personnel have been heard to say, "That's a story all this would make! I can hardly wait until the war is over."

2. Remarks such as the foregoing are obviously the result of a complete misunderstanding of the permanently binding nature of the secrecy oath taken by all SSA personnel prior to their acceptance for duty.

3. It is apparent that insufficient emphasis has been placed upon the underlined clause in the attached copy of the oath.

4. It is recommended that:

   a. Immediate steps be taken to call to the attention of all officers, enlisted men, and civilian employees the fact that the secrecy oath was drawn up and is intended to be just as binding after the war as it is during the war.

   b. Attempt should be made to cause legislation to be enacted with a view to accomplishing what the British Defense of the Realm Act accomplishes, viz., provides strict penalties for disclosure, without proper authority, of information detrimental to the National Defense. I think an act could be drawn to do what is necessary in this regard without infringing in any way upon the rights of free speech and now is the time. However, in drafting such legislation it is essential that technically qualified people assist in the work so as to avoid a repetition of the very unfavorable publicity that arose when something like this was attempted in 1923 in the case of a Yardley book that had to be suppressed, which led to the enactment of a perfectly futile and silly law.
As a result of the recommendation made in 4b above, a report was prepared
and submitted on 9 June 1944 to the United States Army-Naval Communication
Intelligence Coordinating Committee on "The Need for New Legislation
Against Unauthorized Disclosures of Communication Intelligence Activities.
To further strengthen the security of the Signal Security Agency the policy
was adopted of requiring personnel separating from the Agency to sign
again the security oath which they had signed upon entering the Agency.

In the early days the security policy at Arlington Hall Station, based
upon AR 380-5, had as its objective the highest possible degree of secrecy
and concealment. The very existence of the station was not to be mentioned
outside the gates. As time went by, however, some of the restrictions were
relaxed in the interests of efficiency in operations, recruitment, and
liaison. While absolute security was not achieved, the experience of the
Signal Security Agency in World War II demonstrated the wisdom of perpetually
evaluating and improving security measures, balancing the ideal against
practical considerations.

22. This report was the outcome of a study of the subject by a committee
consisting of Lt. (j.g.) John V. Connorton, USNR, representing the
Navy and Lt. Floyd W. Tomkins, Jr., ANS, representing the Army.

23. A full account of the attempts by ANCICG and ANIC to secure legis-
 lative action in this field may be found in a study made by the ASA
 Historical Unit entitled "The Safeguarding of Signal Intelligence
 and Communication Security through Legislation against Unauthorized
 Disclosures".

24. Prior to October 1946 military personnel had not been required to sign
a security oath.
H. In Retrospect

The choice of Arlington Hall as the site for the Army's signal intelligence center was based primarily on the following considerations (Tab 1):

1. The property was large enough to provide space for expansion;

2. Being located on the outskirts of the metropolitan area, Arlington Hall was reasonably secure both from the activity of enemy secret agents and from possible enemy bombing missions;

3. The location was in the vicinity of the Primary Eastern Monitoring Station and of government agencies with which the Signal Intelligence Service had frequent dealings;

4. In the Washington-Arlington area there were housing and transportation facilities for Agency personnel and their dependents.

There were a number of disadvantages to the site chosen, some of which might have been avoided had a different location been chosen.

25. The following paragraphs owe much to a Memorandum for the Commanding Officer, Signal Security Agency, by Lieutenant Colonel J. E. Slack, Administrative Officer, dated 13 November 1944 (Tab 1). This memorandum, which grew out of informal discussions of high-ranking officers of the Agency, recommended consideration of the Chicago area as a better location for the Agency. No action was taken on the memorandum.

26. The establishment of the Primary Eastern Monitoring Station at Vint Hill Farms Station was being planned at the time (18 April 1942) the TAC letter was written directing that a site be selected for the Army's signal intelligence center. Vint Hill Farms Station was activated when detachments were transferred to Vint Hill from Fort Hunt, Virginia (18 June 42) and from Fort Euston, New Jersey (1 July 42). For information concerning the monitoring stations that preceded Vint Hill Farms Station, see volume Thirteen (Intercept and Communications) of the NSA History.
The fact that Arlington Hall Station was located in the Military District of Washington subjected the Agency to whatever personnel policies were in effect for the District. One regulation, known colloquially as the "Child Labor Law", provided for the removal to other assignments outside DC of officers under 28 years of age. As the Agency had among its skilled technicians many officers who were in this category, much time was consumed by the administrative officers in obtaining exceptions to the provisions so that these officers might be retained on important assignments.

Moreover, the Military District of Washington was on several occasions included in Army Service Forces plans for reduction in personnel. As frequently happened, notice of ASF-directed reductions in force was frequently received at the same time that G-2 was directing increases. Had the Signal Security Agency been located outside the Military District of Washington, much of this difficulty might have been obviated.27

Keen competition with other Governmental agencies in the area for civilian personnel hindered recruiting and was a factor in the resignation of many highly-qualified key civilian personnel (as well as civilian personnel as a whole) who found opportunities for advancement in other agencies. Personnel policies varied considerably among Government departments, and the Signal Security Agency was not always

27. This applies to local policies and local applications of ASF directives only.
able to meet this competition with better offers.

The difficulty of finding a cafeteria management willing to cope with the disadvantage of long-haul deliveries of food, scarcity of Negro labor (which preferred to live and work in the District of Columbia), and the difficulty of providing food service on a three-shift basis, became a big problem which might in part have been avoided in another location. Transportation facilities, despite great efforts on the part of this Agency and the whole-hearted cooperation of the bus companies were not so good in Arlington County as elsewhere, since the existence of more than one company, with resulting double fares, tended to increase the living expenses of employees of the Agency.

These disadvantages of the location that was actually selected might have been avoided had a site been chosen in a city removed from Washington. An office building might have been acquired by the Government in which all Signal Security Agency activities could have been housed more satisfactorily or at least as well as at Arlington Hall Station. Yet such a course would have been in many ways decidedly less to be preferred, since the closer contact with the War Department, which a site in Arlington assured, would have been lost, and it is conceivable that at any other site even greater disadvantages might have been experienced which would have created more serious problems.
Nevertheless, viewed in the light of the Agency's wartime experience, the decision to locate the Headquarters of the Signal Security Service at Arlington Hall Station seems fully justified. The space available for expansion was ample. The security requirements were also fulfilled. As it later proved, enemy bombing missions was only a hypothetical peril that had to be reckoned with. The danger from the attentions of enemy secret agents was minimized by the guard, by the identification system, by the fences and alarm system, and by the work of the Post Intelligence Officer. If any enemy agent ever attempted to gain access to the premises, the incident remains unknown.28

The providing of transportation and housing for Agency personnel, though never easy, was accomplished in a fairly satisfactory manner with the cooperation of the Arnold Bus Company and the housing agencies of the War Department and the government.

The proximity of the post to Vint Hill Farms Station and to the Washington area greatly facilitated liaison and direct contact with the following offices and installations:

1. The Primary Eastern Monitoring Station, which served as a convenient laboratory for the testing of new equipment and techniques.

2. The Office of the Chief Signal Officer, which made possible close coordination with various Signal Corps organizations on such matters as military and civilian personnel, supply, finance, and radio engineering.

3. The Military Intelligence Service, which enabled rapid transmission and coordination of operating instructions and fast and frequent delivery by officer courier of Bulletin material.

4. The Navy Department, the Coast Guard, the Office of Censorship, the Federal Bureau of Investigation, and various British missions, which facilitated exchange of vital communications information and liaison on intelligence and security matters.

5. The Office of the Secretary of War, which provided trained nurses, operating equipment, and hospital facilities for emergency medical treatment of the large civilian component of the Agency.

6. Walter Reed Hospital, which provided specialized medical care for the military personnel of the Agency.

7. Fort Myer, Virginia, which provided Arlington Hall Station with essential quartermaster, hospital, and engineering services, and personnel.

8. The War Production Board, which expedited the obtaining of priorities to greatly accelerate construction work at Arlington Hall.

9. The Office of the Chief of Engineers, which expedited construction work at Arlington Hall Station, Vint Hill Farms, and other SSA installations and which provided liaison with reference to certain exceptions to standard construction policy which were made necessary by the specialized character of the work of the Signal Security Agency.

10. The Civil Service Commission, which procured and classified thousands of civilian employees for the Agency.

The close contact the Agency maintained with the offices and agencies mentioned above was a factor of no little importance in keeping operations at a high level of productiveness with a minimum expenditure of time and money in maintaining liaison. In the field of research and development and procurement of cryptological equipment, on the other hand, liaison with contractors and manufacturers, many of whom had their laboratories or factories in places not so readily accessible to the Headquarters of
the Signal Security Agency, proved to be both expensive and time-consuming. It would seem therefore that, should the Agency in future find it advisable to move its headquarters from Arlington Hall to some other location, the planning for such a move would include a careful weighing of the advantages assured by proximity to those officers and installations with which the Agency shall at that time have need for liaison against the possible disadvantages of such proximity. It would also include, without a doubt, provision through electrical means for such necessary liaison as could not adequately be maintained through personal contacts.
WAR DEPARTMENT
The Adjutant General's Office
Washington 25, D. C.

AG 323.3 (17 Sep 45)0E-3-B

21 September 1945

SUBJECT: Reclassification of Arlington Hall Station and Vint Hill Farms Station, Virginia, and Two Rock Ranch Station, Petaluma, Calif.

TO: Chief, Army Security Agency

Pursuant to War Department letter, AG 322 (4 Sep 45) 0E-3-E-II, 6 September 1945, subject: Establishment of Army Security Agency, Arlington Hall Station, Arlington, Virginia, Vint Hill Farms Station, Warrenton, Virginia and Two Rock Ranch Station, Petaluma, California are reclassified, effective 15 September 1945, as special installations under the control of the Chief, Army Security Agency, in accordance with AR 170-10 paragraph 6a(5).

The Commanding Generals of the appropriate Service Commands will furnish such administrative assistance and housekeeping facilities as may be requested. Letter, AG 322.03 (24 Jul 42) 0E-M-SF, 7 August 1942, subject: Designation of Arlington Hall Station and Vint Hill Farms Station, Virginia, and letter, SFX 322.03 (24 Jul 42) 0E-M-SF, 7 August 1942, subject: Establishment of Primary Monitoring Station, Two Rock, Petaluma, California, and any other previous instructions in conflict with the foregoing are superseded.

By order of the Secretary of War:

/s/ A. J. Fehe
Adjutant General

COPIES FURNISHED:
Commanding General, Army Services Forces
Commanding General, Third Service Command
Commanding General, Ninth Service Command
Commanding General, Military District of Washington
Divisions of the War Department General Staff
Chief Signal Officer
Chief, Military Intelligence Service
MEMORANDUM for Commanding Officer, Signal Security Agency.

Subject: Location of Signal Intelligence Activities.

1. DISCUSSION:

1. Problem: Is Arlington Hall the ideal location for the Signal Intelligence Activities of the War Department, or are there other more suitable locations?

2. History:

a. Before the declaration of war on 7 December 1941, plans were being considered for establishing the Signal Intelligence Service in new and more suitable quarters which would provide room for expansion. Upon the actual commencement of hostilities, it was generally realized that a location other than the one then occupied in the Munitions Building was immediately necessary. Provision of a much higher degree of security and a great increase in space were obvious requirements. Plans were drawn for a move to the Pentagon Building, then under construction, but were abandoned when it was determined that possible space needs of Signal Intelligence activities might be in excess of the space that could be made available. On 16 April 1942, a letter directive from the Adjutant General, subject, "Expansion of the Signal Intelligence Service", was received. This directive stated in part:

"Every effort should be made to complete the processing of cryptographic material once the codes and ciphers have been broken, including translation and furnishing the information derived therefrom to A. C. of S., G-2, for intelligence usage.

It is desired that a study be made looking to the removal of your Signal Intelligence Service activities, now established in the Munitions Building, to a place outside of the city of Washington where it will be more secure from bombing or from the attentions of enemy agents. This site should preferably be not more than one hour and thirty minutes journey by automobile from Washington and, if practicable, in the vicinity of your Eastern Primary Monitoring Station."
b. Immediate action was taken by the Officer in
Charge of Signal Intelligence Service to inspect suitable properties
which conformed to the specifications contained in the directive
from The Adjutant General. Arlington Hall Junior College was inspected
by officers of Signal Intelligence Service in May 1942, and after the
site was also approved and inspected by Military Intelligence Service
and the Chief Signal Officer, it was acquired by the Corps of Engineers
on approximately 14 June 1942. A small guard detachment from Second
Signal Service Battalion immediately took over the installation.
Signal Intelligence Service moved to Arlington Hall (present Head-
quarters Building) in increments from its cramped and crowded
quarters in the Munitions Building. Immediate action was taken to
secure approval for construction of the new buildings necessary to
house the expanded activities of Signal Intelligence Service.
Construction of Operations "A" Building was begun on 4 August 1942.
The building was partially completed and occupied by 16 November 1942.

...c. However, additional signal intelligence missions
were assigned and further expansion directed by G-2 in November 1942,
and it was necessary to provide space for increased personnel.
Construction of Operations "B" Building was begun on 4 December 1942,
and was ready for partial occupancy by 15 March 1943. Other con-
struction, including conversion of barracks for WAC personnel, semi-
permanent WAC housing, a new warehouse, and cafeteria, has followed
almost continuously as activities and personnel have continued to expand.

...9. Limitations on Locating Site of SIS Activities:

a. As indicated in The Adjutant General's directive of
18 April 1942, the following factors made the selection of a new
location mandatory:

(1) Increased space requirements.

(2) Increased physical security of such a nature
as to reduce the danger from attentions of
enemy agents.

(3) Removal of the SIS operations from a congested
area which was at that time considered a
possible target for enemy bombings.

b. The Adjutant General's directive established the
following conditions desirable for the new location of Signal
Intelligence activities:

(1) The site to be not more than one hour and
thirty minutes journey by automobile from
Washington.
(2) The new location should be accessible to the Primary Eastern Monitoring Station, which at that time, was located at Fort Hunt, Virginia. (Plans were already under consideration to move the Primary Monitoring Station to Vint Hill Farms Station, Warrenton, Virginia.)

2. Factors Influencing the Choice of Arlington Hall Station for SIS Site:

   a. The selection of Arlington Hall Station was made in conformity with the directive referred to above, as a result of informal surveys carried on by the Officer in Charge and his staff, together with subsequent inspection of the premises by 0-2 and by the Chief Signal Officer. Documentary evidence of these surveys is not available, but in reviewing the history of Arlington Hall Station since that date, the following factors are considered as having made the selection a logical one:

      (1) Proximity to the Washington area made it possible to maintain close liaison and direct contact with the following government agencies and proved of great value for the reasons indicated:

         (a) War Production Board - which expedited the obtaining of necessary priorities to greatly accelerate construction work costing approximately $4,500,000.00.

         (b) Office of the Chief of Engineers - which has enabled the expediting of construction at Arlington Hall Station and other SIS field installations, and has provided close liaison concerning various exceptions from standard construction policy, which are necessary for the specialized work of Signal Security Agency.

         (c) Fort Myer, Virginia - which provided Quartermaster, Hospital and Post Engineer services, and avoided a costly duplication of facilities and personnel at Arlington Hall Station.

         (d) Office of the Chief Signal Officer - which has made possible close coordination with various other Signal Corps organizations on military and civilian personnel, supply, fiscal, radio engineering matters, etc.
(e) Civil Service Commission - which expedited the recruitment and classification of 8,369 civilian personnel, to date.

(f) Walter Reed General Hospital - which, together with the Station Hospital at Fort Myer, provided excellent medical care for military personnel and obviated a regular Post Hospital at Arlington Hall.

(g) Secretary of War's Office - which provided trained nurses, operating equipment, and hospital facilities for the emergency medical treatment of the large number of civilian personnel.

(h) Military Intelligence Service - which enabled rapid transmission and coordination of operating instructions and important intelligence between SIS Headquarters and 0-2.

(1) Navy Department, Coast Guard, Office of Censorship, Federal Bureau of Investigation, State Department, and various British Missions were readily available for the exchange of vital communications information, resulting in improved operating methods and close liaison on intelligence and security matters.

(2) Proximity to Vint Hill Farms Station (now the location of the Primary Eastern Monitoring Station) enabled the assignment of intercept missions, receipt of information, training in radio operation and cryptographic and cryptanalytic methods to be more effectively carried out as a result of the accessibility of this station.

(3) The availability of land on the reservation for the erection of new buildings and of additional tracts of land in the vicinity which could be leased or acquired as further expansion became necessary, gave flexibility to operations at Arlington Hall Station.
(4) Arlington County housing facilities, which, although located in an overcrowded area, were capable of continued expansion. Housing within the District of Columbia was very scarce because the city was extremely crowded as a result of expanded government agencies. The location of SIS activities in Arlington County enabled the Signal Security Agency to find housing more readily than it could have in the District of Columbia. Hundreds of rooms in private homes were made available throughout the Arlington, Falls Church and Alexandria areas. Also, this region, which is convenient to Arlington Hall, has had a large proportion of apartments and other defense housing projects completed within the last two years. Because these facilities are new and modern, the standard of housing is probably better than that to be found in Washington, or in a more isolated location not possessing such a reserve of housing facilities.

(5) The prospect of working in the Washington area, in which the Nation's Capitol is located, and which is the center of affairs of world-wide importance, has acted as an attraction to aid both in the recruitment of new civilian employees and in the direct recruiting of WAC personnel throughout the country.

(6) Because of the existence of permanent buildings which were suitable for immediate occupancy upon minor alteration, i.e., the present Headquarters Building, old warehouse and gymnasium, it was possible to move Signal Intelligence activities at a much earlier date than if a site had been selected at a location without suitable existing buildings.

(7) Under the assumption that the personnel of the Signal Security Agency will be reduced after the cessation of hostilities, excess office space can be utilized for secure storage of cryptographic machines and classified records of the Signal Security Agency.

b. The following disadvantages have become apparent because of the location of SIS activities in the Washington area, and which might have been partially overcome by choosing a location outside of the Military District of Washington.
1. The conflict with the military personnel policies of the War Department applicable to the Washington area consumed considerable time and attention of key personnel. Example of such policies was the removal from the Washington area of officers under two years of age, as the Signal Security Agency was a rapidly expanding organization, it had depended largely on graduates from Officer Candidate School and language schools. As a result, officer personnel of Signal Security Agency was predominately young personnel. As these officers had been trained in SIG work, the mission of Signal Intelligence Service would have been seriously handicapped if forced reduction had been applicable, as all training and experience of these officers would have been lost. Also, the Military District of Washington was included in plans for reduction of personnel within Army Service Forces. As a result, the Signal Security Agency often received notice of reduction of personnel from Army Service Forces at the same time O-2 was directing increases.

2. Keen competition with other government agencies for civilian personnel has hindered local recruiting and has been a big factor in the resignation of highly qualified key civilian personnel, as well as civilian personnel as a whole. Personnel policies varied considerably among government departments, and the Signal Security Agency was not always able to meet this competition.

3. The difficulty of finding a cafeteria management, willing to cope with the disadvantage of long haul deliveries of food, scarcity of Negro labor (which prefers to live and work in the District of Columbia), and the difficulty of providing food service on a three-shift basis, became a big problem in providing food and maintaining high morale of civilian workers.

4. Transportation to and from work is not as good in Arlington County as in some areas. The large number of bus companies with the resulting double fares, and the inadequate equipment of these companies were major factors in the difficulties of supplying adequate public transportation.
(5) The buildings at Arlington Hall are temporary structures lacking air conditioning and other improvements and conveniences which might have been obtained in a modern permanent type of building at another location.

c. As indicated in paragraph 2-a above, the Pentagon was once considered as a possible location of SIS activities. However, locating within the Pentagon would not have complied with the Adjutant General's directive of 16 April 1942, but would have provided most of the advantages listed in paragraph 4 above. Plans for the expansion of SIS activities have been frequently increased on short notice and have entailed unexpected space requirements. It is doubtful if these additional missions could have been assumed and the resulting personnel expansion accommodated without serious dislocation of other War Department activities located in the Pentagon.

d. If Signal Intelligence Service activities had been located at some point on the outskirts of a large metropolis, the following advantages would have been obtained:

(1) Transportation facilities are more highly developed and the presence in a larger city of railroad facilities for commuters, extensive street car lines, as well as bus routes, would have made this problem less pressing than in the relatively undeveloped area in the environs of Washington.

(2) If the location of Signal Security Agency activities was, for example, in Chicago, there would be far fewer interruptions by higher echelons in the War Department with the work of key personnel. Although the organization would have continued as a field agency of the Office of the Chief Signal Officer, and under operating directives of Military Intelligence Service, greater autonomy would prevail and the work would be performed with less opportunity for non-essential discussions and conferences called by higher headquarters. Such meetings as necessary could have been accomplished at regularly scheduled times. Similarly, the administrative services of the organization would not be subject to the severe restrictions placed upon them in Washington, where all activities are subject to close political scrutiny. Personnel policies and ceilings as previously pointed out are not as rigid in other localities, and competition with other government agencies is not as severe. However, in certain categories of personnel, there would be more competition with war industries.
(3) Housing in Chicago is more plentiful than in this area, as that city was overbuilt in the period between 1920 and 1930, and only with the war demand for housing have conditions become crowded. The Washington area, in contrast, was congested even before the war, as the increase in government functions had taken up any vacancies existing in the period between 1930 and 1940.

5. Conclusion:

In view of the many administrative problems encountered, it is thought that a location in or near Chicago, Illinois, would be the ideal location for the permanent site of Signal Intelligence activities for the following reasons:

a. Experience has shown that recruiting of civilian personnel has been most productive in the midwest area. Chicago is the principal city and trading center in this district. The best type of personnel for SIS work have been recruited in this area, as educational standards are higher here than in most other parts of the country.

b. Chicago is a communications center, and adequate facilities are available for all types of communication, which are essential for SIS operations.

c. Because of its size and the considerable over-expansion of building which took place there during the 1920’s, housing facilities both for operations and living quarters would be more readily available in Chicago than in most alternative locations.

d. Chicago and the surrounding industrial area, form one of the greatest manufacturing centers in the United States. Many of the largest contractors specialising in the type of equipment used by SIS are located in this area. Deliveries of materials and procurement in general would be aided by location of SIS in this region.

e. Railroads and air lines all use Chicago as a terminal point, and its location midway in the United States makes either the Pacific coast or eastern seaboard only a few hours journey by air. In addition, local transportation facilities are highly developed with commuters' trains, street cars, elevated lines, a subway, and extensive bus routes, all providing transportation in and around Chicago.

f. Considerable autonomy would necessarily result if the SIS organisation were outside of the immediate jurisdiction of the Office of the Chief Signal Officer. Liaison on policy matters would...
be afforded by the establishment in the Pentagon of a strong organisation within the Office of the Chief Signal Officer to represent SIS. Many special problems of SIS are completely different from those of the Signal Corps, and the location of SIS at a point where these matters could be handled locally without creating an exception to policies of the Office of the Chief Signal Officer would be beneficial.

g. A stronger organisation representing the Assistant Chief of Staff, G-2, would be located within SIS itself to effect closer liaison with operating divisions.

h. The numerous and varied recreational facilities available in Chicago would be considered as a contributing factor to the health and morale of employees.

II. ACTION RECOMMENDED.

In view of the above, it is recommended that a site in or near Chicago, Illinois, be considered as the most favorable location for the permanent site of Signal Intelligence activities.

J. E. Slack,
Lt. Colonel, Signal Corps,
Administrative Officer.
Photographic Identification Badges for Civilian and Enlisted Personnel
Arlington Hall Station
Post Orders No. 2

July 28, 1942.

1. Badges shall be of the Graflex Tamper-Proof type.

2. All civilian and enlisted personnel assigned to Arlington Hall Station will wear photographic identification badge at all times while in the confines of Arlington Hall Station. Badges will be worn on exterior of clothing to be easily visible at all times.

3. All badges will bear a serial number, such numbers starting from 1 and progressing serially. There shall be no duplication of numbers. In case a badge is lost, and it is necessary to issue a replacing badge, the replacing badge shall bear a new number. The numbers shall be photographed on the name plate of each badge.

4. Badges will have colored mate to distinguish various classes of employees, as follows:
   a. RED—Citizens and enlisted men with access to restricted areas.
   b. ORANGE—
      (1) Citizens and enlisted men in Administrative Section who do not have access to restricted areas.
      (2) Enlisted men of 2nd Signal Service Battalion who do not have access to restricted areas, including guards.
   c. YELLOW—Students, civilian or enlisted men who have access to school areas only.
   d. GREEN—Custodial help with access to buildings, but without access to restricted areas unless accompanied by authorized person.
   e. BLUE—Kitchen help, access to kitchen and cafeteria area only. Custodial, temporary, drivers, laborers, etc., who have access to no Signal Security Division office buildings unless accompanied by authorized person.
HEADQUARTERS ARLINGTON HALL STATION
ARLINGTON, VIRGINIA

November 27, 1942

POST ORDERS

NO. 31

Subject: Package Passes

1. Effective November 29, 1942 at 0700 the following instructions will be observed:

2. Each civilian employee and each enlisted man having occasion to carry a package or papers of any description from either the Headquarters or the Operations Building at this station shall present the package to his commissioned subsection head or section executive officer for inspection.

3. If the material in the package may be taken from the building the subsection head or section executive officer shall prepare a Package Pass (sample attached) by entering the date, the name of the bearer, and his signature.

4. The subsection head or section executive officer shall personally affix the pass to the package, placing the gummed section in such a manner that the package cannot be opened without mutilating the pass.

5. The sentry on duty at the building exit shall check that the Package Pass bears an authorized signature and shall tear the pass from the package, leaving only the gummed strip of paper attached to the package.

6. The only exception to be made to this procedure shall be lunch boxes regularly carried by employees which will not require a pass; however, the sentry will continue to make a close inspection of all lunch boxes.

7. Each section head shall have a list prepared promptly showing the typed name and individual signatures of himself and his commissioned subsection heads authorized to issue passes. This list of names shall be held to a minimum. The list shall be forwarded directly to the Provost Marshal, Arlington Hall Station.

8. Each section will be furnished with a supply of the blank pass forms. These blank forms shall be treated as classified and kept under lock.
h. Civilian employees or enlisted men arriving at the headquarters with personal hand luggage shall be required to check it in the Guard Office, Room 119. At the Operations Building, luggage shall be checked at such a place as the Provost Marshal may designate, pending the occupancy by the guard of its permanently assigned quarters.

1. The Provost Marshal is charged with the duty of checking all Package Passes on the day following their issuance and of maintaining a permanent file of these passes. Any irregularities observed in the check shall be reported to the Adjutant.

By order of Colonel Bullock:

[Signature]

James F. Best, Jr.
1st Lt., Signal Corps
Asst. Adjutant

ARLINGTON HALL STATION
ARLINGTON, VIRGINIA

PACKAGE PASS

Date______________________

The bearer of this package

is permitted to remove same from premises. It contains no material compromising the security of this headquarters.

Subsection head.

[Stamp] 15-31332-1 (Fill in above in ink)
5. A record shall be maintained of each badge issued, including name of person, date of issue, number of badge, and color of badge. An immediate report shall be made of any badge lost or found.

6. Every person who possesses a War Department photo badge shall be required to turn in such badge when issued a new Signal Security Service badge. The special Signal Security Service pass shall also be turned in when receiving the new photo badge.

7. Effective with use of new badge, only officer personnel will be in possession of special Signal Security Service passes.

[Signature]
Frank H. Bullock,
Colonel, Signal Corps
HEADQUARTERS ARLINGTON HALL STATION
OFFICE OF THE COMINGING OFFICER
ARLINGTON, VA.

March 31, 1943.

POST ORDERS

No. 9

1. Effective April 1, 1943 a charge of 11.00 will be assessed against each member of the military or civilian personnel of this Station requiring replacement of a lost badge.

2. This action is necessitated by the increasing number of identification badges lost by personnel of this Station. The materials from which badges are made are on the critical list and are both difficult and expensive to procure. In addition, valuable time is being lost from the war effort both by the person who has lost the badge and by the personnel who must devote time to preparing records of such cases and issuing badge replacements.

By order of Colonel Corderman:

James F. Best, Jr.
1st Lt., Signal Corps
Adjudant.
ARLINGTON HALL STATION
OFFICE OF THE PROVOST MARSHAL
ARLINGTON, VIRGINIA

No. 2 Date: April 16, 1943

The bearer, Wm. J. Bell
is permitted to carry packages
from "A" and "B" Buildings

Scott T. Runnels
1st Lt., Sig., G.,
Provost Marshal

THIS PASS NOT GOOD AFTER: June 30, 1943

ARLINGTON HALL STATION
ARLINGTON, VA.

PACKAGE PASS
This will permit the bearer
George M. Jackson
No. 153
Tools and parts only
Not good for papers.

Expires: DEC 30 1943

ARLINGTON HALL STATION
OFFICE OF THE PROVOST MARSHAL
ARLINGTON, VIRGINIA

This will permit T-4 Elsie Shoppee with a LABORATORY
BRANCH BADGE to carry a camera in "A" building to
Room 2072-A or on the grounds of this POST.

Expires: DEC 31 1946

Robert E. River
1st Lt., Sig. G.,
Provost Marshal

THIS DOES NOT PERMIT THE BEARER TO TAKE PICTURES
ANYWHERE ON THE POST.
Hush, Hush! Fish, Tush!

'Secret' War Documents Prove About as Hard to Get as a Cold

Two Wacs, acting on the orders of a high-ranking Army officer, last week exposed glaring weaknesses in existing Government security regulations. The details of the story read like fiction, but a few red-faced Army officers could testify that this one really happened.

The actors in this exciting drama were "Colonel X." and two comedy Wacs. Colonel X. is in a very hush-hush agency which it seems best to call PDQ.

A few weeks ago, Colonel X. became skeptical as to the efficiency of security regulations at PDQ. He knew that strictest secrecy was required, for much of the material handled at his agency was very important to the war effort. The colonel decided to check on the security and finally came up with a scheme which seemed both simple and direct.

One day last week Colonel X. obtained the services of two Wacs who were stationed at a nearby Army post. Swearing them to secrecy, he told them that he wanted to find out one thing—were the security regulations at PDQ adequate?

The colonel gave them enough money for civilian clothes and arranged hotel accommodations for them in Washington, the latter no mean feat. After a few simple instructions, they were on their own.

"Bright and early next morning, the two girls walked out of a downtown hotel and started for PDQ. They boarded a bus already packed with Government workers bound for the same place. Distressed inquiries from some fellow passengers revealed that PDQ was in dice, need of workers. The jobs were very secret and fascinating. They couldn't tell what they did, because it was so—well, they just couldn't tell.

Upon alighting from the bus, the Wacs followed the crowd to the main entrance. Formidable, armed guards were carefully checking every person who entered. Everyone had to have a badge, and besides all the badges weren't alike. Some had differently colored borders around the picture on the wearer.

The Wacs (in sleep clothing), See SECRET, Page 2, Column 7.

SECRET

From Page 1 asked one of the guards where they could apply for a job. They gave fictitious names and were issued visitors' badges. The guard courteously told them where they would find the employment office.

Our two heroines conveniently got lost, and finally found themselves in the cafeteria. They noticed that many girls would lay aside their outer garments, not removing their precious identification badges. It was a simple matter to choose two badges, but picking out pictures which somewhat resembled them took almost minutes.

The Wacs donned the stolen badges and pocketed their visitor's badges. Then they made a tour of all the offices which would admit them with their purple and green badges. Here and there, they picked up documents which people had left lying around. They soon found out, however, that a black and violet badge would admit them to any office at PDQ. They talked it over and decided to leave for the day. On their way out they put on their visitor badges and put the stolen badges in their purses.

At the hotel that night the girls were very busily engaged in pasting strips of black and violet paper around the pictures on their stolen badges. They covered them again with cellulophane and they were all set.

The next day was a busy one. The two Wacs worked all day, swinging shift, and graveyard shifts. They would slip some secret documents and make a note of where they got them and what time it was. They covered practically every office at PDQ, and they were amazed at how easy it was to get important war documents, merely by scrutinizing them.

The next day the Wacs turned over all their notes of their pilfering and all the evidence to Colonel X. He was so astounded that he made the Wacs tell him their story. A careful examination of the evidence showed that much of the material stamped as secret was hardly that, being greatly overclassified. But there was enough really important stuff picked up to give him comfort to the enemy. Colonel X. now had a hot potato on his hands. The very next day things started popping. PDQ employees began scrutinizing the badges of their fellow workers.

The crimson flush mounting on some very important countenances would make a neon sign look like a fire-fly.
### PERSONAL HISTORY STATEMENT

**(INCLUDING OATH OF OFFICE, AFFIDAVIT, AND DECLARATION OF APPOINTED)***

<table>
<thead>
<tr>
<th>INSTALLATION</th>
<th>2. ADDRESS OF INSTALLATION</th>
<th>3. DATE PREPARED</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4. LAST NAME—FIRST NAME—MIDDLE INITIAL</th>
<th>1. DATE OF BIRTH</th>
<th>4. SEX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td><strong>Female</strong></td>
<td><strong>W</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. MARITAL STATUS</th>
<th>8. HEIGHT</th>
<th>10. WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single</strong></td>
<td><strong>Married</strong></td>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. SOCIAL SECURITY NO.</th>
<th>12. U. S. CITIZENSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>By Birth</strong></td>
<td><strong>Naturalized</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. PRESENT ADDRESS AND TELEPHONE No.</th>
<th>14. DRAFT STATUS</th>
<th>DRAFT BOARD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>15. PERMANENT ADDRESS</th>
<th>16. PHYSICAL HANDICAPS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>17. NOTIFY IN CASE OF EMERGENCY (Name, address, telephone, relationship)</th>
<th>18. DO YOU RECEIVE ANY PENSION OR OTHER BENEFIT (Excludes adjusted service certificate for military or naval service, or annuity from the U. S. Government, under any retirement act)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>

**EDUCATION**

<table>
<thead>
<tr>
<th>CIRCLE HIGHEST GRADE COMPLETED, ELEMENTARY OR HIGH SCHOOL</th>
<th>GRADUATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF SCHOOL AND/OR</th>
<th>DATES</th>
<th>GRADUATED</th>
<th>DEGREES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplementary Training</strong></td>
<td><strong>From</strong> (yr.)</td>
<td><strong>To</strong> (yr.)</td>
<td><strong>Yes</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME AND LOCATION OF SCHOOL</th>
<th>LAST ATTENDED</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>19. ARE ANY MEMBERS OF YOUR FAMILY (either by blood or marriage) EMPLOYED BY THE U. S. GOVERNMENT, EXCLUDING PERSONS IN THE ARMED FORCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
</tbody>
</table>

**EXPERIENCE**—List all previous Federal employment and private employment for the last ten years. List most recent position first and work back. Enter as a separate item any period of furlough or leave without pay from a Federal position because of authorized transfer to a private or public enterprise. Use additional sheet if required.

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
<th>NAME AND ADDRESS OF EMPLOYER OR AGENCY</th>
<th>POSITION HELD—BRIEFLY DESCRIBE DUTIES (Note type of Federal appointment, if known)</th>
<th>SALARY RANGE</th>
</tr>
</thead>
</table>

**SPECIAL QUALIFICATIONS** (Professional or trade skills, machines operated, foreign languages, etc.)

<table>
<thead>
<tr>
<th>21. U. S. MILITARY, NAVAL, OR MERCHANT MARINE SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Branch</strong></td>
</tr>
</tbody>
</table>

| **Yes** | **No** |

<table>
<thead>
<tr>
<th>24. ARE YOU A WIFE OF A DISABLED VETERAN</th>
<th><strong>Yes</strong></th>
<th><strong>No</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Are You an Unmarried WIDOW OF Deceased Veteran</strong></td>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Have You Already Established Military Preference with Civil Service Commission</strong></th>
<th><strong>Yes</strong></th>
<th><strong>No</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Veteran</strong></td>
<td><strong>Wife of Disabled Veteran</strong></td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td><strong>Disabled Veteran</strong></td>
<td><strong>Widow of Veteran</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Have You Already Been Classified Competitive Civil Service Status</strong></th>
<th><strong>Yes</strong></th>
<th><strong>No</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employing Agency Where Status Acquired</strong></td>
<td><strong>Yes</strong></td>
<td><strong>No</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Do You Have Reemployment Rights</strong></th>
<th><strong>Yes</strong></th>
<th><strong>No</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>In What Agency</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WD FORM 17 UNLS 79**
### Supplementary Data:

22. OTHER NAMES (Include maiden name or alias)  
23. PLACE OF BIRTH  
24. COLOR  
25. COLOR EYES

#### Permanent Home Addresses for Past Five Years

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Street-City-State</th>
</tr>
</thead>
</table>

26. U.S. CITIZENSHIP

<table>
<thead>
<tr>
<th>NATURALIZED CITIZENS</th>
<th>NONCITIZEN CITIZENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Following</td>
<td>Complete Following</td>
</tr>
<tr>
<td>Date of Issue</td>
<td>Date of Entry</td>
</tr>
<tr>
<td>Place of Issue</td>
<td>Place of Entry</td>
</tr>
</tbody>
</table>

27. HAVE YOU EVER BEEN ARRESTED, SUMMONED INTO COURT AS A DEFENDANT, INDICTED, CONVICTED, IMPRISONED, OR PLACED ON PROBATION? [ ] YES [ ] NO

28. HAVE YOU EVER BEEN FINGERPRINTED? IF "YES" AFFIRMATIVE STATE WHERE

29. HAVE YOU EVER BEEN DISCHARGED OR ASKED TO RESIGN FROM ANY POSITION? [ ] YES [ ] NO IF "YES" ATTACH DETAILS

#### Relatives (List following members even though deceased)

<table>
<thead>
<tr>
<th>Name in Full</th>
<th>Address</th>
<th>Country Where Born</th>
<th>Citizenship</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATHER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOTHER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPOUSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHILDREN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARENTS-IN-LAW</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BROTHERS AND SISTERS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Foreign Countries Visited Since 1930

<table>
<thead>
<tr>
<th>Country</th>
<th>Date Left U.S.A.</th>
<th>Date Returned</th>
<th>Reason for Visit</th>
</tr>
</thead>
</table>

30. ORGANIZATION MEMBERSHIP (Do not list religious, or political party, affiliations)

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>Purpose</th>
<th>Address</th>
<th>Years Member (From-To)</th>
</tr>
</thead>
</table>

#### References (Give names of three responsible citizens, not relative or employer, who have known you at least 5 years)

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Occupation</th>
<th>Years Known</th>
</tr>
</thead>
</table>

31. Position Title

32. Does position involve access to confidential or secret material? [ ] YES [ ] NO

33. Type of Investigation Desired

<table>
<thead>
<tr>
<th>ROUTINE</th>
<th>SPECIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

34. Usual Signature or Mark of Applicant (Fill in when item 44 is not executed)

MAIL CASE REPORT TO:

**Oath of Office, Affidavit, and Declaration of Appointee**

1. I do solemnly swear or affirm that I will support and defend the Constitution of the United States against all enemies, foreign and domestic, that I will bear true faith and allegiance to the same; that I take this obligation freely without any mental reservation or purpose of evasion; that I will well and faithfully discharge the duties of the office on which I am about to enter, so help me God.

2. I do further swear or affirm that I do not advocate nor am I a member of any political party or organization that advocates the overthrow of the Government of the United States by force or violence; and that during such time as I am an employee of the Federal Government, I will not advocate nor become a member of any political party or organization that advocates the overthrow of the Government of the United States by force or violence.

3. I do further certify that (1) I have not paid or offered or promised to pay any money or other thing of value to any person, firm or corporation for the use of influence to procure my appointment; (2) I will inform myself and observe the provisions of the civil service law and rules and executive orders governing political activity, political associations, etc.

4. I do further certify that all statements made on this personal history statement are true, complete and correct to the best of my knowledge.

Said and sworn before me this ______ day of ______, 20__, State of ______.

(Signature of officer administering oath)

(Signature of applicant)
I do solemnly swear (or affirm) that:

I will not now or at any future time discuss my activities, or any details of the organization, activities, or operations performed by this Agency, except in the performance of my official duties.

I do not now hold, nor will I at any future time keep in my personal possession, or within my personal quarters, any official document of a TOP SECRET, SECRET or CONFIDENTIAL nature, or any copy thereof, except in the performance of my official duties.

(Any violation of the above makes me liable to one or both of the existing penal statutes outlined below:

Military Personnel: The 64th, 81st, and 82nd Articles of War.
Civilian Personnel: The Espionage Act (which calls for a maximum fine of $10,000 and/or ten years imprisonment).

I will report without delay to my immediate supervisor, or to the Chief, Army Security Agency, the details or circumstances of any case which comes within my knowledge wherein an unauthorized person has obtained or is attempting to obtain information concerning the Army Security Agency or any of its activities.

So help me God.

(Name) (Rank or Grade)

Subscribed and sworn to before me on ________________.

WDGAS-40

WDGAS Form No. 7 (Rev. 4)
7 February 1946
HEADQUARTERS
ARMY SECURITY AGENCY
Washington 25, D. C.

PATENT MEMORANDUM NO. 1
(Date)

1. You have been assigned to develop improvements in arts of value to the Chief, Army Security Agency or to work with such development that information gained in your work may reasonably be expected to result in patentable invention. Your assignment to this work is for the express purpose of vesting in the United States all right, title and interest to any such improvements and inventions arising from said development or that you may make while engaged in the work assigned, if in the opinion of the Chief, Army Security Agency the public interest demands that the invention be owned and controlled by the War Department.

2. Since no person in the military service or employed by it is entitled to classified military information solely by virtue of his commission or official position and since such information will be entrusted only to those who need it in the performance of their official duties, who of necessity must be informed because of their cooperation in the work, project, development or invention concerned, therefore the possession of or access to classified matter shall of itself for the purpose of this memorandum be deemed to place the person concerned in that group or groups assigned to a development in question nor shall such presumptive assignment in one group limit or preclude assignment, presumptive or actual, in other similar groups.

3. Assignment to this work constitutes a specific assignment to invent such devices, circuits, products or processes as are necessary or desirable for the completion of any project or projects with which your group is charged. Acceptance of this assignment by you will constitute an agreement on your part to execute the papers necessary to transfer to the Government the rights which it requires under paragraph 9 (a) AR 850-50, as set forth in paragraph 7 of this memorandum, including complete assignment of the invention where it falls within the terms of sub-paragraph 9 (a) (1) or, (if it be determined that the invention should be held secret) sub-paragraph 9 (a) (2) thereof. Such assignments, whether of all rights under the invention or merely licenses, must be drafted in form to meet the requirements of law in the categories to which the invention pertains.

4. In the case of an invention which the Chief, Army Security Agency decides should be held classified, or which relates to a classified project, acceptance of this assignment also constitutes an agreement on your part that you will not disclose the invention to unauthorized persons until such time as you are informed in writing by authority of the Chief, Army Security Agency that the need for secrecy has ceased.

5. It is the policy of the Chief, Army Security Agency that officers, enlisted men, and civilian employees have no relations with commercial organizations that might jeopardize their unqualified loyalty to the
Army Security Agency or that might influence their official action in development, procurement and inspection duty. The following examples are cited as representative of conditions that must be avoided:

a. Technical, mechanical, administrative, sales or any other service, outside official working hours or while on leave, to an organization or individual engaged in a line of work that reasonable foresight might visualize as eventually leading to business relation with the Army Security Agency.

b. Financial interest to the extent of 1/100 of one per cent or more of the capital account, in any corporation or partnership that reasonable foresight might visualize as an eventual Government contractor for the type of material with which the Army Security Agency is concerned.

c. Patent licenses under issued patents or applications therefore to manufacturers who may with reasonable foresight be expected to become Government contractors for the type of material with which the Army Security Agency is concerned and involving such patents.

6. In order to assist personnel and to establish criteria the following questions are asked, answers to which are to be attached hereto and made a part hereof: (Use attached sheet for answers to following)

a. Are you employed on a part-time basis or as a consultant by any organization that has now, or is likely to have in the future, contracts from the Army Security Agency? If so, with whom and under what conditions?

b. List your employers for the past ten years.

c. List any contracts or agreements involving inventions, patents, or patent rights to which you are a party, identifying the other parties thereto.

7. Paragraph 9 (a) AR 850-50 reads as follows:

"Inventions evolved by officers, warrant officers, enlisted men and civilian employees will be divided into three classes, those which

(1) Are produced as a result of a specific employment or contract to invent the specific device or article. The War Department will assert the ownership of the Government in this class and will require an assignment of entire right, title and interest therein.

(2) Arise in connection with and as a result of the official duties or general employment of the officer, warrant officer, enlisted man or civilian employee, but where there is no specific designation or employment to invent the thing concerned. With regard to this class, whether or not patented under the provisions of law, Act April 30, 1928, (45 Stat. 467; 35 U.S.C. 45; M.L. 1939, Sec. 1369), the War Department requires at least a non-exclusive license in writing to make, use, and sell or otherwise dispose of in accordance with law or to cause to be so made, used, sold or disposed of, and every such invention will be reported by the inventor to the War Department. In cases where the invention is
important in the national defense and for that reason should be kept secret, the War Department may request a complete assignment.

(3) Do not refer to and are not evolved in the line of duty of the officer, warrant officer, enlisted man, or civilian employee. With regard to this class the War Department has no particular concern unless the invention has military value. If it has, the War Department will accept a non-exclusive license, if tendered."

8. This notice of assignment to develop improvements in arts of value to the Army Security Agency shall not be construed as divesting you of ownership of any invention made by you while engaged on this work except as set forth in the preceding paragraph, but the Army Regulations therequoted will be strictly followed. If in any case you believe that these regulations have been improperly applied, the Chief, Army Security Agency may be requested to waive or modify any ruling thereunder which may have been made.

 Ist Ind.

1. I hereby accept assignment to work under the conditions set forth in basic communication, and agree to communicate to the Chief, Army Security Agency or his designated representative all patentable ideas conceived by me during my work and all patentable ideas conceived by me which relate to Army Security Agency activities during the term of my employment. I agree to cooperate with the Army Security Agency in every proper way to present patent applications which they decide to file, and agree I will not apply for patents on ideas related to Army Security Agency activities (except through the Army Security Agency) unless a release in writing is given by the Chief, Army Security Agency or his duly authorized representative. It is understood that this agreement applies only to the term of employment and terminates when employment as set forth in the basic communication ceases.

(Signature of employee)

WDGSS-TL No. 43
6 June 1946
SECRET

Total Strength, Signal Security Agency, Compiled from Daily Strength Reports

(AS OF THE FIRST DAY OF THE MONTH)
Officer and WO Strength, Signal Security Agency, Compiled from Daily Strength Reports
(AS OF THE FIRST DAY OF THE MONTH)
Enlisted Personnel, Signal Security Agency

Compiled from strength reports of the Second Signal Service Battalion, including attached personnel

(AS 'OF THE FIRST DAY OF THE MONTH)
Compiled from strength reports of the Second Signal Service Battalion, including attached personnel as of the first day of the month.

- Total
- Continental United States excluding Arlington Hall Station
- Arlington Hall Station
- Overseas
Enlisted WAC - Strength, Signal Security Agency
Compiled from strength reports of the Second Signal Service Battalion, including attached personnel

(AS OF THE FIRST DAY OF THE MONTH)
Total Civilian Strength, Arlington Hall Station, Compiled from Daily Strength Reports
(AS OF THE FIRST DAY OF THE MONTH)
Accessions and Separations of Civilian Personnel, Signal Security Agency
Compiled from Daily Strength Reports

(As of the first day of the month)
ARLINGTON HALL STATION CHRONOLOGY
July 1942 to December 1945

1942

8 July Arlington Hall Station declared an exempt station under the control of the Chief Signal Officer.

14 July Installation of direct wire connection between Station and Air Raid Control Board.

20 July Officers' Register established at Arlington Hall Station.

12 Aug. Identification badge color-code system effected for control of admission to restricted areas.

13 Aug. Main section of S.I.S. moved from Munitions Bldg. to A.H.S.


1 Sept. Construction of troop housing facilities commenced.

Flag ceremonies initiated.

2 Sept. Hqrs. Cafeteria opened in Hall.

5 Sept. Commanding Officer conducted the first formal inspection of the permanent guard.

25 Sept. War Bond Drive opened with guard ceremonies.


1 Oct. Enlisted Men's mess opened. Field kitchen in use.

First Retreat ceremony held.

5 Oct. War Bond Drive successfully completed. Over $100,000 in annual subscriptions obtained.

6 Oct. Commanding Officer entertained the following officers at tea following an inspection tour of the Post.
1942

Admiral Godfrey, R.N.
Maj. Gen. G. V. Strong
Brig. Gen. F. E. Stoner
Col. C. W. Clarke

6 Oct. Upon publication of the 5th edition, the name of the Post publication was changed to "Barracks Bag".

8 Oct. Post Exchange opened at 1700.

12 Oct. Training program for enlisted men initiated.
Elements included as follows:
Close order drill
Military Courtesy
Basic signal communications
Weapons assembly


30 Oct. Basic training program for officers directly commissioned.

16 Nov. Refresher courses for officers initiated.

17 Nov. First units of "B" Section moved into wings 7 and 8 of new Brrs. "A" Bldg.

26 Nov. Following officers entertained in enlisted men's mess for Thanksgiving Dinner:
Maj. Gen. Ulmstead
Brig. Gen. Stoner
Col. Bullock
other field grade officers from A.H.S.

27 Nov. Community War Fund Drive successfully completed.
Military and civilian personnel pledged $4548.30

1943


21 Jan. Meeting of all officers held in Main Cafeteria by Col. Bullock. TF "Prelude to War" shown.


1 Feb. North parking area opened and made available to all Post personnel.


23 Feb. Major James E. Slack appointed Post Executive Officer.


10 Mar. Red Cross Drive completed. $5672.00 contributed from Arlington Hall Station.

12 Mar. Meeting of all officers held in Main Cafeteria: The following officers spoke on the subjects indicated:

Lt. Col. Cook - Wearing of the Uniform
Maj. Brown - Military Courtesy
Maj. Slack - Actions becoming officers


15 Apr. West Lee Boulevard entrance to Post opened.
1943

17 Apr.   McShain Contractors, Inc. awarded Army-Navy "E" award for construction completed on the Post.

24 Apr.   "Government Girl" warplane fund drive netted $1,950.00 at Arlington Hall Station.

30 Apr.   Swimming pool in Post gymnasium opened for use of military personnel.

4 May     Meeting of all officers held in cafeteria.

5 May     Public address system installed in barracks area. To be used for parade music, bugle calls, etc.

10 May    Occupation of Operations "B" Bldg. completed.

10 May    Dental section of dispensary activated.

13 May    Hqrs. Cafeteria re-opened.

15 May    Friday reviews of 2nd Sig. Serv. En. inaugurated.

22 May    2505th Service Unit (Medical Unit) activated at Arlington Hall Station.

22 May    Arlington Officers Club incorporated.

28 May    American Flag presented to Arlington Hall Station by Maj. Gen. Olmstead. Flag received on behalf of A.H.S. by Mrs. Charles Saltzman.


5 June    Enlisted men marched in review before Col. Gorderman.

14 June   Film "Divide and Conquer" shown at meeting of all officers. (3rd film in series)

5 July    Meeting of all officers. Movie of (1) troop training, at AHS and (2) Review of June 5th shown.

13 July   First Sig. Serv. Platoon activated at A.H.S.
1943

16 July  Arrival of first WAAC personnel.

15 July  First contingent of Post military personnel (exclusive of guard) fired Rifle Course C.

24 July  Arlington Officers Club opened. Official opening and dance scheduled for 31 July.


30 Aug.  "Leadership" courses for all officers instituted.

31 Aug.  Current War Talk for civilians held in gymnasium Speaker- Charles F. Taft, Director of Office of Community War Services.


7 Sept.  Current War Talk for civilians held in gymnasium. Speaker- Rear Admiral Joseph Redman, Director of Naval Communications.


9 Sept.  Enlisted men's barracks completed with exception of water heating plant.


15 Sept.  Current War Talk for civilians held in gymnasium. Speaker- Mr. Byron Price, Director of Censorship.

20 Sept.  Infiltration Course, consisting of simulated battle conditions for mental conditioning, formally established for all military personnel except Wacs.
1943

20 Sept. Current War Talk for civilians held in gymnasium. Speaker- Mr. Wm. F. Friedman, Director of Communications Research, A.H.S.

23 Sept. Current War Talk for civilians held in gymnasium. Speaker- Hon. Joseph C. Grew, former ambassador to Japan. Subject- "Our Enemy, the Japanese".

27 Sept. Current War Talk for civilians held in gymnasium. Speaker- Mr. Hugh H. Kiegg, Asst. Director of F.B.I. Subject- "The Enemy in Our Midst".


4 Oct. 3rd War Loan Drive concluded. Over 90% civilian participation in Payroll Deductions Plan, $90,109.00 in cash bonds sold.

4 Oct. 50 manual lines added to switchboard to relieve overload of equipment.

5 Oct. First assignment of WAC quarters on Post.


23 Oct. Colonel Corderman returned to Station and assumed command.

2 Nov. Community War Fund Drive completed. Net income of $13,350.75 received.

8 Nov. Heavy rain caused flooding of cafeteria bldg. basement damaging over $10,000.00 of Post Exchange supplies.


19 Nov. Strike of Arnold Bus Co. operators caused a 2 day tie-up of buses serving AHS. Motor Pool and private transportation used in place of buses.

19 Nov. Last Battalion Revue of current year.

26 Nov. Security Film "Sucker Bait" shown to all post personnel.
1943

29 Nov.    Film "The Battle of Russia" (Parts IV & V of "Why We Fight series) shown to all post personnel.

8 Dec.    Civilian War Service Awards presented by Col. Gorderman and accepted on behalf of 1885 employees by Mr. Wm. F. Friedman.

13 Dec.    First class held in the series of courses in Military Justice for all officers, AHS. Courses to include 6 classes, lasting 2 weeks.

1944


1 Jan. Lt. John MacDonald appointed Post Intelligence Officer vice Capt James F. Best relieved.

13 Jan. Cafeteria tickets issued.


8 Feb. A small fire occurred at 1940 in Room 2063-A.

11 Feb. Main Gate closed for repairs.

15 Feb. The Main Gate was re-opened.

28 Feb. Fire Drill at 1500 in Headquarters Building.

29 Feb. 4th War Loan Drive completed. 90.2% civilian participation in Payroll Deduction Plan. 9% individual payrolls subscribed $87,048.00 cash purchases.

1 Mar. Lt. Col. James E. Slack appointed Administrative Officer to perform duties previously performed as Executive Officer.


13 Mar. Opening of Communications Conference held at Arlington Hall Station. Conference attended by 25 participants (21 officers and 4 civilians) and 10 observers and technical consultants.

24 Mar. Communications Conference concluded.

28 Mar. Ground cleared for beginning of new construction at Arlington Hall Sta. This construction to include:

13 WAC barracks
1 WAC barracks as admin. & tng. bldg.
1 Mess hall
1 Tng Auditorium
1 Recreation bldg.
1 Exchange bldg.
1944

- 1 Dispensary
- 1 Central heating plant
- 1 Warehouse
- 1 Motor repair shop
- Addition to Post Engineer’s Office
- Drill & recreation field
- Conversion of existing dispensary to WAC officers’ quarters and dayroom
- Conversion of existing P-X to custodial dressing rooms & tailor shop
- Conversion of a portion of existing WAC barracks for storage
- Conversion of enlisted men’s latrine for storage


51 May. Red Cross Drive completed. $15,499.07 subscribed.

4 Apr. A meeting of all officers held in Post Gymnasium. Speaker: Lt. Col. Frederick J. O’Leary, Asst. Chief, Civilian Personnel Branch, OCSigO. Subject: Civilian Job Classification.

22 Apr. Strike of Arnold Bus Co. operators caused 2 day tie-up of bus service for A.H.B. Motor Pool and private vehicles used in place of bus service.

24 Apr. Electric power shut off from 0800 to 1100 due to construction.

28 Apr. Hours of duty for all personnel changed as follows:
- 1st Shift - 0800-1630
- 2nd Shift - 1600-0030
- 3rd Shift - 0000-0800

2 May. Shuttle bus schedule to Pentagon Building changed.

5 May. Civilian personnel accepting part-time employment with Arnold Bus Lines, Inc.

10 May. Post tennis courts available for use.

22 May. Forms Standardization Unit established.

22 May. Post Exchange audited for period 26 Mar to 24 Apr.
1944

24 May  Fire Department inspected by Service Command Engineer.

24 May  Meeting of Post Conservation Officers held.

25 May  Chairman and Key-Men for forthcoming War Loan Drive appointed.

27 May  Secure telephone system authorized by A.O.S.

29 May  Chaplain (1st Lt.) William F. Smith assigned to Arlington Hall Station.

1 June  Fifth War Loan Drive begun.

8 June  Lt. George F. Saine, Jr. appointed Post Safety Officer, in addition to his other duties.


20 June  Construction of Warehouse, Motor Repair Shop, Grease and Inspection Rack, Wash Rack, Concrete Road and apron to Warehouse, gravel road and apron to Motor Pool buildings completed.

30 June  Main Store of new Post Exchange opened.

4 July  Tap Room in new Post Exchange opened.

6 July  Meeting of Post Recreation Committee

10 July  Shuttle bus schedule to Pentagon Building revised. Buses will run every thirty minutes, beginning at 0845.

26 July  Civilian Recruiting campaign closed 3,281 recruited.


27 July  All leaves and furloughs frozen, in compliance with directive from ASF.

28 July  Colonel Corderman and Mr. Friedman presented $250 award in Post Theater to Mrs. Mabel E. Ford for her suggestion for Victory.
31 July  1944  Fifth War Loan Drive concluded.  141 new accounts gained, $82,440.50 cash sales.


12 Aug.  Post Theater opened.

15 Aug.  Main Cafeteria open 24 hours daily.

15 Aug.  Red Cross Field office established in Post Gymnasium.

15 Aug.  Mr. J. M. Patterson, Real Estate Branch, Office, Chief of Engineers, inspected real estate.

16 Aug.  Fire Department inspected by Service Command Engineer.

20 Aug.  Headquarters Cafeteria closed.

21 Aug.  Headquarters Cafeteria operation consolidated with Main Cafeteria.


31 Aug.  Defective BX cable in 5th Wing, Operations A Bldg., caused damage by fire in the amount of $50.00.

10 Sept.  Installation of 100 additional dial telephone lines completed.

12 Sept.  WAC Recruiting Program ended; 620 WAC's recruited.

21 Sept.  Headquarters Cafeteria now available as Post Conference Room.

21 Sept.  West Lee Blvd. Gate closed to all traffic. Sixth & Quincy Street Gate reopened to all traffic.

22 Sept.  Installation of secure telephone system completed.
1944

1 Oct. Leave and furlough policy unfrozen.

2 Oct. Sir Henry Travis and Brig. A.F. Harris, H.M.F. visited the Commanding Officer.

4 Oct. Major General Thompson, Brigadier General Stoner and Colonel Rehm visited station this morning, later going to Vint Hill.

5 Oct. Schedule of hours of operation of main cafeteria changed.


8 Oct. Schedule of banking hours at Arlington Hall Branch of Arlington Trust Co. changed.

10 Oct. Fire Drill - Operations B Bldg., 1500 hours

10 Oct. Meeting of all officers in Post Theatre at 1635.

11 Oct. Fire Drill in Headquarters Building at 1100

11 Oct. Meeting of Chairman, Key-Men and Minute-Men in War Fund Campaign held in Post Theater at 1500.

12 Oct. Major Barnhart, Food Service Supervisor, Office of the Quartermaster General, reported to inspect Mess hall and Cafeteria.

13 Oct. Revised personnel authorization for 2505th Service Unit approved.

24 Oct. Captain William G. Vogel, Dental Corps, reported for duty, replacing Captain Berger, relieved.

25 Oct. $38,104.60 has been donated to Community War Fund Drive. Our quota is $31,898.05.


1944


7 Nov.  Col. C.B. Allsopp spoke to members of the Forum Group at 1430 in Room 2067A.

8 Nov.  Per instructions received from the Commanding General, Military District of Washington, all post flags were flown at half mast from Reville to retreat in respect to Sir John Dill, British Chief of Staff in the United States, who was buried today in Arlington National Cemetery.

10 Nov.  Twenty enlisted women were presented good conduct ribbons by Lt. Colonel Slack.

17 Nov.  Moving operations within Headquarters Bldg. begun.

18 Nov.  Colonel W. Present Gorderman departed today for temporary duty overseas. In his absence, Col. S.P. Collins will act as Asst. Chief, 3 B.B., and Commanding Officer, AHS and 2nd Sig. Bn.

22 Nov.  Lt. O.P. Jones appointed Post Intelligence Officer and Public Relations Officer, vice Capt. J.N. MacDonald, relieved.

23 Nov.  Chaplain Smith conducted Thanksgiving Services in Post Theater at 1115 today. Turkey served in Battalion Mess Halls and Cafeteria.


25 Nov.  Sixth War Loan Rally of Chairman, Key Men and Minutemen held in Post Theater at 1430.

26 Nov.  Construction of new fire station begun.

28 Nov.  Fire drills conducted in Operations "A" and "B" Bldgs.


1944


20 Dec. Fire Drill in Operations A Bldg at 1100
        Fire drill in Hq's. Bldg at 1500.

22 Dec. Colonel W. Preston Gorderman returned to duty.
1945

1 Jan. Representatives from Inspector General's Department inspected Special Services and other non-appropriated funds.

2 Jan. Colonel W. Preston Gorderman spoke to members of the Forum Group regarding his recent trip to the Pacific Ocean Area.


9 Jan. A civilian morale program has been announced, to consist of lectures to employees. Each employee will attend a session every two months.

20 Jan. First performance of "Night Must Fall" given at Post Theater. Other performances will be given on 22 and 23 January.

24 Jan. Section III, General Orders No. 6, War Department, 24 January 1945, announces the award of the Legion of Merit to Lt. Colonel Harold McD. Brown, for exceptionally meritorious conduct in the performance of outstanding services from 16 November 1942 to 21 October 1944.


1945

24 Feb. New fire station completed.

28 Feb. Colonel Oveta Culp Hobby, Director, Women's Army Corps, visited the post from 1100 to 1400.


1 Mar. The 1945 Red Cross War Fund Drive began.


20 Mar. Colonel Gorman spoke at meeting of all officers in Post Theater at 1545.

3 Apr. Red Cross War Fund Drive ended, $20,062.96 having been collected at this station, against a goal of $15,392.00.

12 Apr. President Franklin Delano Roosevelt died at Warm Springs, Georgia today.

14 Apr. In respect to the late President Roosevelt, personnel were granted a half day off.

30 Apr. Major General Harry C. Ingles, Chief Signal Officer visited the Post today.


5 May Lt. Colonel McGrail interred at Fort Myer, Virginia.

17 May Germany surrenders unconditionally to United States, Great Britain, and Russia.

16 May Request for loan for the purchase of upholstered seats to be installed in the Post Theater approved by Special Services Division.

19 May Second Signal Service Battalion Organization Day.

1945

30 May  Colonel Harold G. Hayes relieved as Assistant Commandant, Signal Security Agency.

30 May  Major Robert T. Walker designated Executive Officer, Signal Security Agency.

31 May  Arlington Hall Symphony Orchestra presented concert in Post Theater.

3 June  In accordance with the provisions of I&D Circular No. 135, 1945, tobacco rationing was effected this date at Arlington Hall Station.

14 June  Tennis courts available for military personnel.

19 June  Group picture of all Division and Branch Chiefs taken in amphitheater.

19 June  First performance of "George Washington Slept Here" given in Post Theater. Other performances to be presented on 20 and 21 June.

22 June  Construction of bus shelter began in front of station on Lee Boulevard.


28 June  Colonel W. Preston Godderman promoted to the rank of Brigadier General per WD Special Order No. 154, dated 28 June 1945.

5 July  Work started to convert four mobilization type, cinder block, two-story barracks to the improved standard of housing already in effect at South Post, Fort Myer, Virginia.

12 July  Major General Frank E. Stoner spoke to the officers of Arlington Hall Station regarding his tour in the European Theater of Operations.

14 July  Bus shelter completed in front of station on Lee Boulevard.

1945

14 Aug. Japan accepts terms of the Potsdam Conference.

15 Aug. In accordance with declaration of President Truman, a two day holiday to celebrate the surrender of Japan was observed.

16 Aug. Brigadier General Corderman spoke to all Arlington Hall personnel regarding the past activities of the Signal Security Agency and the conversion of the Signal Security Agency to a peacetime status.

18 Aug. Sec VI, War Department General Orders No. 64, 4 Aug. 1945 announces the award of the Legion of Merit to Col. Clinton B. Allsopp.


26 Aug. Forty-hour week effected at this Post.


29 Aug. WAC Retreat Parade, Presentations of Hood Conduct Medals by Colonel Westray B. Boyce, Director, WAC.

29 Aug. First issue of current series of Post newspaper "The Barracks Bag."

31 Aug. Colonel E.M. Drake and Commander Hope from Ottawa, Canada visited this Post.

1 Sept. Quarterly inspection of WACs in old area.

1945

6 Sept. General Seibert and General Carter W. Clarke visited this Post.

8 Sept. Company pictures were made of WAC Company 3 (1st Lt. Doris B. Clarke, CO) and WAC Company 4 (1st Lt. Martha Schuchart, CO).

8 Sept. Quarterly inspection of WAC's in new area.

10 Sept. Military and civilian personnel of Arlington Hall Station excused from 1200 to 1500 hours to participate in welcome for General Jonathan M. Wainwright.

15 Sept. Reorganization of WAC companies as follows:
   Company 1, 1st Lt. Geneva L. Krontz, CO,
   Company 2, 1st Lt. Mary B. Downe, CO,
   Company 3, 1st Lt. Doris B. Clarke, CO,
   Company 4, 1st Lt. Martha Schuchart, CO.

15 Sept. Signal Security Agency reorganized as Army Security Agency and placed under War Department General Staff.

15 Sept. Quarterly inspection of enlisted men.

28 Sept. Colonel E.M. Drake of Ottawa, Canada, visited this Post.

28 Sept. Class B uniform authorized for wear on and off Post.

3 Oct Reorganization of WAC companies as follows:
   Company 1, 1st Lt. Geneva L. Krontz, CO,
   Company 2, 1st Lt. Mary B. Downe, CO.

5 Oct. Military and civilian personnel of Arlington Hall Station excused to participate in celebration for Admiral Chester W. Nimitz.


12 Oct. Sir Edward Travis, GCOS, visited this Post.

12 Oct. Sec III, War Department General Orders No. 86 dated 12 October 1945, announces the award of the Legion of Merit to Colonel Harle F. Cook.
1945

16 Oct.  Forty-eight hours VOCG authorized for officers.

18 Oct.  Enlisted men were moved to Barracks T-500 to T-503 inclusive.


26 Dec.  Monday and Tuesday, 24 and 25 were holidays.
HISTORY OF THE ARMY SECURITY AGENCY

VOLUME ONE:

ORGANIZATION

Part II

1942 - 1945

Prepared under the direction of the

CHIEF, ARMY SECURITY AGENCY

CSQAS-13

13 April 1948

TOP SECRET
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CHAPTER VI. CIVILIAN PERSONNEL PROBLEMS 1942-1945

A. Authorizations

The first wartime expansion of the Signal Intelligence Service began, as we have seen, with approval of the employment of 115 additional civilians in the fiscal year 1943,\(^1\) which was granted on 13 March 1942, but two months later it was seen that this expansion would be far from adequate, and therefore it was requested that approval be given for a total of 1057 civilian employees in the fiscal year 1943, a figure which, of course, included the existing allotment.\(^2\) This approval was actually given, but when the first half of the fiscal year 1943 had just passed, a further request was made, and duly approved,\(^3\) which gave the Signal Security Service, as the Signal Security Agency was then called, authorization for a total of 2626 additional civilian employees, or a grand total of 3683 persons.

In the month of August 1943 plans were made for requesting additional personnel to permit the Agency to comply with a directive

---

1. The Chief Signal Officer to the Assistant Chief of Staff, 0-2, 25 February 1942 (OSSigO 311.5), approved by order of the Secretary of War, 13 March 1942.

2. The Deputy Chief Signal Officer to the Commanding General, Services of Supply, Subject: Expansion of Signal Intelligence Service, 24 June 1942 (SPSIS 311.5), approved by command of Lieutenant General Somervell on 10 July 1942.

3. The Chief Signal Officer to the Commanding General, Services of Supply, Subject: Expansion of Signal Security Service, 6 January 1943 (SPSIS 311.5), approved by the Commanding General, 7 January 1943.
PROPOSED ORGANIZATION OF EXPANDED SIGNAL INTELLIGENCE SERVICE

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<td>106</td>
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</table>

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>100</th>
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</table>

The table above represents the proposed organization of the expanded Signal Intelligence Service, with specific details for each unit and their respective codes and details.
of The Adjutant General dated 13 August 1943. A draft of the request was prepared for the signature of the Chief Signal Officer, but this was never used and was, indeed, marked "last original—not used 26 Aug. 43." In this draft the request for new civilian allotment was for 3070 persons. Why this figure was subsequently changed is not clear from the record, but the revised copy of the same paper, signed by the Chief Signal Officer on 3 September 1943, requests only 2170 new civilians. The allotment of civilians therefore became as follows:

<table>
<thead>
<tr>
<th>Allotment</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous allotment</td>
<td>3683</td>
</tr>
<tr>
<td>Additional allotment</td>
<td>2170</td>
</tr>
<tr>
<td>Total</td>
<td>5853</td>
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</table>

This was the final allotment of civilian personnel made during the War, though, however, in the files of the Army Security Agency a number of other documents which appear to conflict with those already cited. For example, there is a reference to approval for the expansion of the civilian allotment by 1050 persons, given

4. The Adjutant General to Commanding General, Army Service Forces, Attention: Chief Signal Officer, Subject: Expansion of the Signal Intelligence Service (AC 320.2 (12 Aug 43) 05-3-3), copy now filed in General Files SPSIS 320.2 (SSA Expansion), 1935-1943, Case No. 1523.

5. Copy now filed in General Files SPSIS 320.2 (SSA Expansion), 1935-1943, Case No. 1523.

6. The Chief Signal Officer to the Commanding General, Army Service Forces, 3 September 1943 (SPSIS 320.2). The date, 15 September 1943, in the margin is probably that of the approval. No endorsement appears on the copy of the request now on file, but since the agency thereafter operated on this basis the approval must have been given.
by the Deputy Chief of Staff and the Commanding General and Chief of Staff, Army Service Forces, on 6 December 1943.\textsuperscript{7} This approval was not, however, an increase of the basic allotment but merely implemented the providing of personnel. Likewise, two documents signed by the Chief, Personnel and Training Service, Office of the Chief Signal Officer, on 1 January 1944 and 31 March 1944,\textsuperscript{8} also were merely fulfillment of the basic directives: they did not increase the allotment by 750 and 1200 civilians, respectively, as they seem to do. That this is true is clear from a report of the Chief, Personnel and Training Division, Signal Security Agency, to the Fiscal Director, Office of the Chief Signal Officer, made on 20 February 1945, which states that the current allotment then was 5853 civilian employees.\textsuperscript{9}

A further point should be made: copies of the Army Service Forces Personnel Control Form (control approval symbol AP-1) regularly show after 30 September 1944 a total of 5047 civilians authorized. This apparent discrepancy may be explained by the fact that 5047 of the 5853 employees were subject to Public Law 49, while the remaining 806 were not.

\textsuperscript{7} Chief, Signal Security Branch, to Chief, Army Communications Service, Subject: Revised Personnel Authorizations, 5 February 1944 (SPSIS 320.2).

\textsuperscript{8} SPSIS 320.2

\textsuperscript{9} SPSIS 320.5
II. Recruitment

In previous chapters attention has been given to the problems of the recruitment of civilian personnel for the Signal Intelligence Service in the period prior to its removal from the Munitions Building to Arlington Hall Station. Personnel functions were then administered by the Officer in Charge of the Personnel Section, First Lieutenant (afterwards Captain) James N. Drury, who had under him a small staff which formed the nucleus of what afterwards became the Personnel Branch, Personnel and Training Division. New civilian personnel were in this period regularly obtained from the Civil Service Commission, which keeps a register of qualified persons, but the Signal Intelligence Service also requested colleges to designate persons qualified to do cryptographic work. The Personnel Section also handled at this time all personnel problems affecting officers.

In June 1942 when the move to Arlington Hall Station was imminent and the subsequent expansion of the Signal Intelligence Service was about to begin, negotiations were undertaken with the Civil Service Commission and the War Manpower Commission to obtain permission to send officers out on recruiting missions. As a result, the Signal Intelligence Service was authorized to send officers into the Fourth Civil Service District (Maryland, West Virginia, Virginia, and North Carolina) for the procurement of civilian personnel. All commitments for employment were to be made by the Civil Service representatives, and certain minimum standards for employment
were established.

A group of ten officers was selected to act as representatives for the War Department in this program. They were instructed to interview persons referred to them by the Civil Service representatives and, if these were found to be acceptable for employment, the officers were then to request that the civilians be employed. Moreover, as the recruiting officers were also instructed to assist the Civil Service representatives in the location of eligible persons, very close relationship between each Signal Corps officer and the Civil Service representative with whom he worked was highly necessary.

One problem which caused acute difficulty was the need for an extremely high degree of security in the operations of the Signal Intelligence Service. While this need was never lessened throughout the War, the procedures by which security was protected were at this time defined with such strictness that operations were in many instances hampered as a result. Nowhere was this unfortunate circumstance so keenly felt as in the case of the recruiting program, for the recruiting officers were not given sufficient information about the whole activity of the Service to make them fully competent to obtain qualified personnel. Since the exact qualifications desired were unknown to the recruiters, special efforts to locate persons with the proper qualifications frequently were impossible.
VI. Civilian Personnel Problems 1942-1945

Later, this state of affairs was rectified by giving fuller instructions to the recruiters, but in 1942 and 1943, when the manpower shortage was not so acute as it afterwards became, the stringencies of security proved a serious handicap. Furthermore, lack of full information led recruiting officers on occasion to make invalid assumptions and inaccurate and misleading statements to candidates for positions. Discrepancies between actual conditions and the tempting promises of the recruiting officers later reflected in low morale and many resignations.

Yet the immediate increase of new personnel engaged by this program of recruiting was highly satisfactory in point of numbers. As a result of the first month of recruiting (November 1942) a hundred new employees were added to the payroll. In December 1942, 381 new employees were added, and in the next month the peak figure of 665 was received. Nevertheless, the recruiting program was continued until the officers were recalled on 15 July 1943. In that last month 595 new employees reported for duty. The results of the efforts of the recruiters were felt, however, as late as September 1943, for during the period of July to September 625 new employees reported for duty. By the end of 1943 the civilian personnel strength had reached 3,455, of which 3,144 had been added since June 1942.

This first program of expansion provided valuable experience
VI. Civilian Personnel Problems 1942-1945

for those who were later to head the second wartime expansion. Reference has already been made to the problem created by the necessity of preserving security. Another problem was the necessity of working with the Civil Service representatives in strict accordance with the procedures laid down by the Commission in peacetime.

In the summer of 1943 there was a movement within the Army Service Forces to reduce the number of civilian employees in the Military District of Washington. A directive was received by the Chief Signal Officer ordering a reduction, which would amount in the case of the Signal Security Agency to approximately 33-1/3 per cent (from 3683 to 2461). To this directive the Chief Signal Officer replied in a memorandum dated 2 August 1943, in which he recounted something of the past history of the Signal Security Agency and the importance of its work to the War. The contemplated reduction would, he stated in paragraph 5, prevent the completion of missions for G-2 and the fulfillment of existing agreements. The current strength of the Agency was 3125 civilians, but if the ASF directive were to be put into effect, the Agency would have to discharge 664 highly trained persons who would at once be employed by the Navy, the FBI, and other agencies, while

the Army would suffer accordingly. For this reason the Chief Signal Officer recommended (paragraph 7) that the Signal Security Agency be exempted from the order. Such exemption was approved.\textsuperscript{11}

A similar crisis was experienced early in 1944, to judge from a report made by the Commanding Officer, Signal Security Agency to the Chief, Army Communications Service, on 5 February 1944.\textsuperscript{12} This report included tables showing authorized and actual strength of the Agency and included the following significant paragraph:

The Signal Security Agency, as an expanding installation, should be excluded from any effects of a reduction in personnel in the Office of the Chief Signal Officer. In recognition of the need to obtain the maximum intelligence from the increasing success in the interception of enemy military radio traffic, The Adjutant General issued a directive, 13 August 1944, supplementary to the basic directive, AG 320.2 (4-18-42) MC-5, which initiated the expansion of the Signal Security Agency. In this supplementary directive the Signal Security Agency was ordered to take "all necessary steps immediately to intercept, to communicate to your cryptanalytic center and to analyze all available material of this type." In order to process the material completely and expedite the delivery of the "derived intelligence to the Special Branch, Military Intelligence Service," the Signal Security Service was further ordered to "procure without delay such additional personnel, equipment and facilities as may be necessary for the accomplishment of this supplementary directive."

\textsuperscript{11} No copy of the original directive nor of the approval of the exemption is on file in the Army Security Agency.

\textsuperscript{12} Chief, Signal Security Agency to Chief, Army Communications Service, Subject: Revised Personnel Authorizations, 5 February 1944, (SP31S 320. 2 (1944), Case No. 612).
Apparently the need for maintaining the strength previously allotted was quite clear to the Conference on Revised Personnel Authorizations called on 28 January 1944 by the Director of Personnel, Army Service Forces, for the allotment of personnel to the Signal Security Agency was never scaled down.

The second great wartime program of expansion was begun on 1 February 1944. This time the 14 recruiting officers were more carefully selected and trained than had been possible in the first campaign. Moreover, the procedures designed to protect security had by this time been more liberally defined, and it was possible to give each officer a clear idea of the type of operations for which new personnel were needed. To this end tours were arranged for them of operating branches. Recruitment, by authority of Schedule A, Sub-Division 4, Paragraph 4, of Civil Service Rules, was conducted on an intraregional basis and included the states of Maine, Vermont, New Hampshire, Massachusetts, Connecticut, New York, Pennsylvania, West Virginia, Maryland, Virginia, North Carolina, Tennessee, Mississippi, Alabama, Georgia, South Carolina, Kentucky, Ohio, Michigan, Wisconsin, Illinois, Indiana, Minnesota, Iowa, Nebraska, Kansas, Oklahoma, and Missouri. Furthermore, the officers followed itineraries set up by the War Manpower Commission, conducted interviews in local offices of the United States Employment Service independently of any Civil Service representative, and had a great deal more freedom of movement than in the previous campaign.
In February 1944 additional officers were assigned to the recruiting program in order to bring it to a quick and successful close, and these officers, after a thorough period of training, assumed their duties early in March. The high expectations for success in this program were realized. By 1 March 1944, 227 recruits had arrived at Arlington Hall Station, raising the total number of civilian employees to 2,527, and this was only a beginning—the program gained momentum, and contacts were extended. A total of 581 were added to the payroll in March 1944 and by 1 May 4,559 civilian employees were on duty. In May 221 recruits were added and sufficient commitments had been made to attain the total authorization for civilian personnel. On 30 June 1944 the total number of civilian employees was 5,155.

One factor contributing to the success of the program was the payment of transportation expenses of the new recruits to Washington. On 19 January 1944 the Secretary of War authorized this payment to employees whose first place of duty was to be Arlington Hall Station. Another factor contributing to its success was the greater care taken in the selection and training of the officers who were sent into the field. The fact that all appointments were made directly under Schedule A without reference to the Civil Service Commission also greatly assisted in speeding the recruiting of large numbers of new employees.
C. WAC Recruiting

The existence of the recruiting machinery made possible its use in the recruiting of enlisted women. On 25 March 1944 a letter was received from the Commanding General, Army Service Forces, directing that the Signal Corps (that is, the Signal Security Agency) assist the First, Second, Fifth, Seventh, and Ninth Service Commands in the recruiting of 600 enlisted women. In complying with this directive, a preliminary survey was made to determine what technical assistance the Signal Corps was expected to give the Service Commands. Publicity was prepared by the Signal Security Agency for the public relations officers of the several Service Commands. This included an illustrated pamphlet, "Private Smith Goes to Washington," which was designed to stimulate further interest in the program. From 1 May to 27 May 1944, 22 Wacs had been recruited in the six Service Commands. On 1 June 1944 increased emphasis was placed on the program through the reassignment of Signal Corps officers from the Civilian Recruitment Program to the WAC recruitment program.

D. Placement

The large number of new employees entering on duty even in the first recruiting program had made it necessary to relieve the Personnel Officer of assigning new employees to their first jobs. The
function of initial assignment of new personnel was, therefore, in January 1943 transferred to the Officer in Charge of the Civilian Training School, to which all entering civilian employees were at once assigned. This officer worked, however, under several difficulties. In the first place, it was necessary that each new employee before assignment be thoroughly investigated by the Post Intelligence Officer. Many of these investigations were not completed for as long as three or four months. In the meantime the employees remained in the Civilian Training School—much longer than could be justified for purely training purposes. This resulted in considerable waste of money and manpower and in bad morale. The problem was eventually overcome by speeding the service on the investigations and by finding temporary work of an unclassified nature for those whose investigations were necessarily being delayed.

In the early part of 1943 all the branches needed so many new employees that no attempt was made to designate what kind or quality of employee a branch desired. Branches were constantly requesting personnel in large numbers. It was not unusual to receive a request for 200 clerks with no stipulation as to classification, age, education, or experience. Technological advances were proceeding at so rapid a pace that frequently it was not possible to predict exactly what specific qualifications would be necessary. For this reason, and because of the security problem, the Placement Officer could not know what the employees were expected to do. He was not author-
ized to enter any branch to see what work was being performed nor did he have any general idea of the type of person needed by each branch. This frequently caused improper initial assignments and resulted in personnel problems and low morale for months after the situation was corrected.

With the initiation of the second recruitment program and the relaxing in November 1945 of the security regulations, the Placement Officer toured the branches in order to gain knowledge of the work done there. As long, however, as personnel were requested in groups the replacement office was fundamentally a record-keeping office.

On 21 February 1944 the Chief, Administrative Branch, directed that new personnel be assigned only to jobs which had already been allocated and also that personnel be assigned for specific positions rather than generally. This directive was a big impetus toward the desired goal of the maximum utilization of personnel. The increased information afforded by the job description and the information obtained by the Placement Officer from his own personal surveys of these jobs made possible an efficient original assignment of each employee to a job where the employee's highest skills would be utilized.

The condition of the labor market during this period was such that it was advisable, if possible, to give considerable weight to
DISTRIBUTION OF PERSONNEL

DATE: 1 MAY 1944

ARLINGTON HALL STATION

KEY:
- OFFICERS
- ENLISTED MEN
- WAC
- CIVILIANS
the desires of a candidate as to the type of job he wanted. Until personnel were requested for specific jobs, no consideration could be given to this prime factor. That this move had not been made sooner was unfortunate, but the changing needs of the operating units made it often very difficult to anticipate specific personnel needs. In the period between March and June 1944 a gradual change took place. Branch Personnel Officers began to send badly assigned and maladjusted employees to the Placement Officer for reassignment, and a great many of the factors which had caused personnel problems were being eliminated. In the meantime new employees were being placed in jobs which better fitted their qualifications. Thus, the Placement Office had evolved from a record-keeping unit to an office engaged in personnel placement.

From the beginning until February 1943 all requests for personnel were handled by the Chief Clerk, and, as the total number of civilian personnel mounted, there was a corresponding increase in the volume of work in the Chief Clerk's office. This work included such matters as separations, processing of new employees, and keeping of records. It was therefore decided to relieve that office of work involving separations, which had, unfortunately, been growing steadily in number. An interviewer in the Civilian Training School was appointed to handle the exit interview so that all people who left the Post would be properly processed in accordance
with the Civilian Personnel Regulations of the War Department. The information derived from these interviews was coordinated and turned over to the Post Personnel Office in the form of a weekly report.

When the Civilian Training School was moved from Headquarters Building to one of the operations buildings, the exit interviewer, who also acted in the capacity of School interviewer, was naturally affected by this transfer. It became necessary for resigning employees to proceed from the branch where they were employed to the Post Personnel Office to have their separation papers processed and then to the Civilian Training School for the exit interview. The inconvenience of this arrangement was corrected by having all of the work handled by an exit interviewer in the office of the Post Personnel Officer.

X. Separations

In the spring of 1943 monthly separations reports were initiated which analyzed resignations by branches, classification, and reasons for resignation. These analyses have proven to be of great value in eliminating many of the causes for resignations. Where comparisons have indicated an abnormal proportion of resignations from a particular branch over a period of time, attention has been directed to this fact and recommendations of possible corrective actions have been made to the branch chief. Other factors disclosed by these reports have had an important effect on the operations and efficiency of the Agency. For example, when it
was noted that separations were heavier than usual during the months of August and September each year, a check of the reasons given for resigning and the length of service showed that numerous employees who were recruited at the end of the school terms in the spring were returning to school either as teachers or students in the autumn. A verbal recommendation was made, therefore, that recruiters ascertain whether or not prospective employees who were school teachers or students intended to remain for the duration of the War or for their summer vacation only. The policy was then established of hiring no temporary employees. A check with other agencies confirmed the fact that they had had the same problem.

In August 1943 separations became the responsibility of the Assistant Post Personnel Officer with a staff of three clerks and an administrative assistant. The mission of that office was to make final decisions regarding removals and transfers, to effect disciplinary action, and to interpret War Manpower Regulations concerning the granting of releases.

As a result of the 1943 expansion program the civilian strength of the Agency increased from 935 to 3,602 during the first seven months of that year—a gain of 265 per cent, and it was anticipated, in view of the scarcity of qualified persons available for employment, that the turnover resulting from this expansion would be high. Separations remained at a fairly constant percentage, however, during
this period of expansion, averaging about five per cent each month. The civilian personnel strength during the next seven months, from September 1943 until March 1944, remained relatively stable and the percentage of separations actually declined, averaging less than four per cent monthly.

The second expansion program, which was begun on 1 February 1944, increased the civilian strength to 5,155 (30 June 1944) and separations again rose to an average of five per cent a month. As both expansion programs were conducted in the midst of a war-shortage labor situation, it was to be expected that many persons would be procured who would later be found to be incapable of absorbing the training necessary to the satisfactory performance of the work. Other Government agencies had this experience and the monthly turnover figures of some showed an even higher separation rate.13 Greater emphasis on selectivity in recruitment and close observation during training of each new employee were the corrective measures adopted by the Signal Security Agency to reduce to a minimum the ill effects of too rapid expansion.

An analysis of voluntary separations through resignation for the first six months of 1944 disclosed four major contributing causes for resignations:

13. The turnover rate in 1944 for the Army Service Forces was 8.1 per cent, while that for the Signal Security Agency was 4.4 per cent for the same period.
1. Obligations to parents was listed as the cause of 30 per cent of all resignations. Most of these cases were caused by pressure from parents to induce the employee to return home, either for financial reasons or because of the illness of relatives. Since the permanent home of most employees was many miles away, obstacles of this kind were hard to overcome. Some success in combating this type of resignation was made by having the Employee Counselors contact the parents of employees in order to point out the value of the employee's services to the war effort. Maternity cases and the necessity for some employees to return home to care for children were also included in this category.

2. A desire to marry or to live with husband was listed as the cause of approximately 20 per cent of resignations. The high percentage of young women among the employees and the increasing numbers of soldier husbands returning from overseas, accounted for the large number of resignations for this cause.

3. Ill health caused 17 per cent of the resignations. This figure is reliable since it is the policy of the Agency to require the resigning employee to present a medical certificate or to be examined by a member of the staff of the Medical Division, Office of the Secretary of War to verify the claim of ill health. It has been found from experience that persons suffering from a sinus condition or from other chronic nose or throat ailments are adversely affected by the climate of the Washington area. Recruiting policy later rejected applicants whose medical examination disclosed one of these afflictions and strongly warned other applicants of the ill effects of this climate when a tendency toward the condition exists.

4. Educational requirements, either those of students or teachers, who were returning to school, were given by 12 per cent as the reason for resigning. All were told during the exit interview that their departure of vital war jobs would handicap the total war effort, and some were dissuaded when they realized the truth of this statement. Many, however, made this decision during the period of optimism caused by good reports from the battle fronts which led to the belief that the War had already been won, and it was impossible to keep this group on the job.
Processing New Employees

Processing a new employee includes the obtaining of the Civil Service authority, effecting transfers, and preparing personnel papers.

Before July 1942, the function of processing new employees of the Signal Intelligence Service was performed by the Civilian Personnel Section of the Office of the Chief Signal Officer, then located in Temporary Building A, 2d and T Streets, S.W., Washington, D.C., but on 13 July two representatives of that Section reported for duty at the headquarters of the Signal Intelligence Service, (then in the Munitions Building) and with several SIS employees proceeded to the George Washington University at 21st and G Streets, N.W. to process 34 persons reporting there for duty. Thus was begun the work of the unit later known as the Transactions and Records Unit of the Personnel Branch.

When, on 24 August 1942, the Signal Intelligence Service administrative units were moved to Arlington Hall Station, the Transactions and Records Unit was not only faced with the task of setting up its equipment in the new location but also with the necessity of processing 38 persons on the same day. The activities of this Unit were naturally very closely related to recruitment. The peak day was 1 February 1943, when approximately 120 persons were processed. Monthly accessions to the personnel strength of the Agency (Tab from 13 July 1942 through December 1945 were as follows:

[Table]

The peak day was 1 February 1943, when approximately 120 persons were processed.
II. Civilian Personnel Problems 1942-1945

Monthly Accessions

Personnel Strength 13 July 1942 through December 1945

<table>
<thead>
<tr>
<th>Month</th>
<th>1942</th>
<th>1943</th>
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<td>January</td>
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<tr>
<td>February</td>
<td>660</td>
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<tr>
<td>March</td>
<td>341</td>
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<td>348</td>
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<td>May</td>
<td>362</td>
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<td></td>
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<tr>
<td>June</td>
<td>462</td>
<td>656</td>
<td>463</td>
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<tr>
<td>July (13-31)</td>
<td>87</td>
<td>347</td>
<td>325</td>
<td>468</td>
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<td>November</td>
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<tr>
<td>December</td>
<td>362</td>
<td>49</td>
<td>107</td>
<td>20</td>
</tr>
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</table>

In May 1944 the Qualifications Unit was organized to appraise the qualifications of personnel and effect requested changes in status. In May and June 1944, 478 changes in status were effected.

New employees of the Agency were required to fill out forms providing a complete record, insofar as it was of interest to the Agency, of their past history, and in addition were required to subscribe to two oaths. The first of these, required of all employees of the Government by the Civil Service Regulations, and made a part of the Personal History Statement form of the Civil Service (Tab 2a), is as follows:

I, ____________________________, do solemnly swear or affirm that I will support and defend the Constitution of the United States against all enemies, foreign and domestic, that I will bear true faith and allegiance to the same; that I take this obligation freely without any mental reservation or purpose of evasion; that I will well and faithfully discharge the duties of the office on which I am about to enter, so help me.
VI. Civilian Personnel Problems 1942-1945

God, I do further swear or affirm that I do not advocate nor am I a member of any political party or organization that advocates the overthrow of the Government of the United States by force or violence; and that during such time as I am an employee of the Federal Government, I will not advocate nor become a member of any political party or organization that advocates the overthrow of the Government of the United States by force or violence.

I do further certify that (1) I have not paid or offered or promised to pay any money or other thing of value to any person, firm or corporation for the use of influence to procure my appointment; (2) I will inform myself of and observe the provisions of the civil service law and rules and executive orders concerning political activity, political assessments, etc.

I do further certify that all statements made on this personal history statement are true, complete, and correct to the best of my knowledge.

In addition to this oath, another, relating to security, was required of all personnel, military as well as civilian. The form of this oath (Tab 2f) varied slightly from time to time. Finally, each new employee was required to sign a Patent Declaration, the text of which is to be found in Tab 2d.

d. Payroll

The Payroll and Leave Section of the Personnel Branch came into existence on 24 December 1942. For the 18 months previous to that time preparation of the payroll vouchers had been one of the responsibilities of a clerk who performed general duties in the personnel office. The voucher was prepared twice a month on standard form No. 1013 (Payroll for Personal Services) and was a relatively
simple matter. Under this system the disbursing officer (Finance Officer, U. S. Army) was responsible for the verification of the computations shown on the voucher, and the Officer in Charge, Signal Intelligence Service, was not held accountable for the maintenance of any records other than those of retirement deductions.

The period 1 July 1941 to 23 December 1942 involved many major changes in payroll procedure. War bond deductions began to appear on the voucher for the period 9 May through 23 May 1942; retirement deductions were increased, effective 1 July 1942, from 3-1/2 per cent to 5 per cent. The establishment of payrolls which would contain the names of no more than 300 employees was another change. The payroll for the period 24 October through 6 November 1942 was in the gross amount of $37,086.44 and authorized payment for 497 employees.

The Finance Officer, U. S. Army, assigned the following block of numbers for the use of the newly established payrolls of the Signal Security Branch: 476, 477, 480, 481 and 482. Payrolls 476, 477, and 480 were activated on 9 November 1942. Payrolls 476 and 477 were comparatively easy because they carried employees with relatively high classifications and correspondingly good attendance records, whereas payroll 480 was always difficult to handle because it carried employees of CAP-2 and CPC-2 ratings, with their characteristic poor attendance records, and, also until the establishment of a per diem payroll on 23 December 1942, the ungraded employees.
Before 1 December 1942 all payroll authorization papers were issued in the Office of the Chief Signal Officer, the technical service under which the Signal Security Agency operated. War Department Orders "M", dated 13 August 1942, directed that all personnel actions be decentralized in both department and field services of the War Department, and thereafter payroll authorization papers were prepared in the Personnel Section.

In approving the Revenue Act of 1942, Congress authorized deductions of a three per cent Victory Tax, effective with the first payment made in January 1943; and the War Overtime Act of 1943 which was passed was made retroactive to 1 December 1942. These deductions presented a difficult problem to the payroll units. In order to provide for them and for other deductions which might be made in the future, the War Department appointed a board to study the method used by the Metropolitan Life Insurance Company, the General Motors Corporation, and the General Electric Company. As a result of this study a new payroll procedure was developed and outlined in War Department Circular No. 412, dated 18 December 1942. Establishment of the system was to be effective with the first payment made in January 1943.

Under authority of Circular No. 412, a Fiscal Officer was appointed per Special Orders No. 92, dated 21 December 1942, to be responsible for the fiscal affairs of the Agency. Special Orders No. 94, dated 23 December 1942, however, amended that order, making this officer the Fiscal and Certifying Officer, and also appointing
him as War Bond Officer.

The authorized operations of a payroll system in brief were as follows:

1. Establishment of an individual earnings record (War Department Form 43) for each civilian employee, to be effective with the first payment after 31 December 1942 and to be maintained for a period of a year at a time.

2. Establishment of a payroll made up of individual earnings records not to exceed 400 names. The operation and accuracy of computation was to be the responsibility of the payroll clerk.

3. Establishment of a payroll certification control.

4. Establishment of a system for preparing War Bond issuance schedules.


7. Establishment of a method of closing and balancing accounts with the disbursing officer.

The year 1943 was, in the Payroll Unit, one of experimentation. Operation was complex and difficult because of new developments and unforeseen problems encountered in the installation of the payroll system, the continued recruiting program, cramped quarters, difficulty in procuring additional machines, typewriters, and other necessary office equipment, and the fact that payroll clerk jobs were allocated at a CAF-3 rating, which was felt to be too low in view of the amount of work and responsibility involved.
VI. Civilian Personnel Problems 1942-1945

Civilian Personnel Regulation No. 120, issued on 13 December 1943, gave the first clear and comprehensive picture of methods and rules to be followed in operating the payroll system. It contained answers to many of the problems that had arisen in connection with payroll work. It also explained the operation of a War Bond Control. Such a control was established immediately, and it has operated successfully since that date.

During 1942 and earlier the payroll operation could be carried on by clerks with no particular background and experience in payroll operations, but, with the establishment of the new payroll system in 1942, it soon became evident that the position of payroll clerk required a background of payroll or bookkeeping experience. Accordingly, an analysis of the position of payroll clerk in March 1944 resulted in the upgrading of this position from CAP-3 to CAP-4, the classification now standard throughout the War Department. The establishment of the CAP-4 position was a decided aid not only in quieting complaints about underpayment for the work performed but also in procuring employees of a higher calibre and better background than could be had under the CAP-3 rating.

The turnover of personnel in the Payroll Unit averaged two to five clerks a month during 1944, the greatest turnover being in payroll clerks. An analysis of transfers and resignations from the
Unit revealed the following reasons:

1. The work carried heavy responsibilities and requires constant and concentrated attention.

2. There are dead lines to meet twice a month, and at the end of each quarter. Moreover, there are two extremely heavy work periods, one in the hottest months of the year and the other in the Christmas holiday season. As a result the leave and vacation periods of the payroll clerks fall into a very rigid pattern, in fact, a great deal more so, it is felt, than in any other CAF-4 position at Arlington Hall.

3. The payroll clerk position qualifies the employee for a CAF-5 position at the General Accounting Office and in many fiscal sections of other agencies. As the number of CAF-5 positions in this Unit is limited, some of the qualified clerks are pirated by agencies which can offer immediate CAF-5 positions.

During 1942 the matter of maintaining time and attendance reports and leave accounts for employees was not difficult. The system was a negative one, that is, the employee was marked present unless reported absent in the Morning Report, which was made daily by the Branch Personnel Officer. During the rapid expansion in 1943 and 1944, however, this system proved unsatisfactory on account of many errors in reporting time which resulted from three-shift operation, transfer of personnel between the branches, separation of employees, poor attendance records of the lower grade employees, and other contributing factors.

A yearly attendance record for each employee on duty at the station was, and is, maintained in the Payroll Unit by a group of CAF-3 Time Clerks under supervision of a CAF-4 clerk.
The War Bond Officer began operating on 23 December 1942. He has been responsible for eight drives as indicated below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Drive</th>
<th>Results Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>1943</td>
<td>American Red Cross</td>
<td>$5,794.03 [contributed]</td>
</tr>
<tr>
<td>1943</td>
<td>Third War Bond Drive</td>
<td>95,115.25</td>
</tr>
<tr>
<td>1943</td>
<td>Community War Fund</td>
<td>9,304.25 [pledged]</td>
</tr>
<tr>
<td>1944</td>
<td>Fourth War Bond Drive</td>
<td>37,048.25</td>
</tr>
<tr>
<td>1944</td>
<td>American Red Cross</td>
<td>15,385.52 [contributed]</td>
</tr>
<tr>
<td>1944</td>
<td>Community War Fund</td>
<td>42,106.46 [contributed]</td>
</tr>
<tr>
<td>1944</td>
<td>Sixth War Bond Drive</td>
<td>125,230.50</td>
</tr>
</tbody>
</table>

Throughout this period the Agency consistently maintained its War Bond Payroll participation at the required level, (90 per cent payroll participation and pledges amounting to 10 per cent of the payroll).

II. Classification

The functions of the present Classification Unit, previous to 1 September 1942, were handled by the Civilian Personnel Section of the Office of the Chief Signal Officer. Instructions "M" of the War Department, on that date authorized the Commanding Officer, Arlington Hall Station, to take final action in regard to promotions or reclassifications of civilian personnel. Machinery was then set up to accomplish the duties associated with the proper functioning of the Classification and Wage Administration Office. This involved: (1) a survey of positions and the determination of the proper classification, designation, and grade of such positions; (2) the preparation of studies and recommendations on ungraded
VI. Civilian Personal Problems 1942-1945

positions; and (3) the maintenance of liaison with other organizations charged with the responsibility for management analysis control.

In order to accomplish this mission effectively, it was necessary to set up special training courses in (1) the principles of classification as outlined by authorities on position analysis, (2) departmental policies, standards, and procedures, (3) the Civil Service rules and regulations, (4) the Comptroller General's decisions and other established legal requirements.

By 30 June 1944 the Classification and Wage Administration Office had grown from 1 to 12 members, 9 of whom were Classification Analysts assigned to the service of the several divisions of Arlington Hall Station.

Previous to 1 January 1944, when employees were recommended for promotion a position description questionnaire was submitted with each recommendation. The duties and responsibilities outlined therein were reviewed, verified, when necessary, by desk audit, and then allocated. Effective 1 January 1944 a special Classification Sheet was designed to provide a permanent copy of the factors necessary to the proper allocation of each position.

I. Employee Counseling

The first employee counseling unit was set up in October 1942. The unit was composed of a Post Counselor with an office in Headquarters Building.
During the winter of 1942-1943 the office of Employee Counselor handled Group Hospitalization Insurance, an Emergency Lean Fund, the publication of a Post News Letter, and all recreational and volunteer activities.

In May 1943 the Red Cross was invited to send a Mobile Unit to Arlington Hall Station to set up a Blood Donor Program. In five days a total of 663 donors was obtained. Thereafter a quota of 150 donors a month was set up and recruitment continued.

A lecture program was planned in July 1943 in order to give the employees of Arlington Hall Station a knowledge of their relationship to the war effort. The speakers included: Mr. William F. Friedman, Director of Communications Research; Colonel Earl F. Cook, Chief of B Branch; The Honorable Joseph C. Grew, Special Assistant to the Secretary of State; Brigadier General J. V. Hatje, Chief, Personnel and Training Service in OSSigO; Rear Admiral Joseph Rosencord, Director of Naval Communications; Mr. Charles F. Taft, Director U. S. Community War Services, Federal Security Agency; Mr. Byron Price, Director of Censorship; Dr. Arthur Fleming, Chairman, Management-Labor Policy Commission, and member Manpower Serving Board, Navy Department.  

In the summer of 1943, owing to the great expansion of the Agency, it was decided that the Post Counselors needed branch assistants to

15. Recordings made of the speeches of the last six speakers mentioned are available in the archives of the Historical Unit, ASA.
help in carrying on the work; thus, five assistants were added to the unit.

The need for an overall health program with emphasis on group hospitalization and utilization of community activities led to the appointment of a Health Counselor.

The aims of the Counseling Unit were, broadly speaking, to assist the employees with off-the-job problems and to interpret employee attitudes and needs to the management with a view to decreasing turnover and absenteeism. The difficulty of securing adequately trained counselors prevented the program from attaining its maximum usefulness. The limitations imposed by security regulations and the relative inaccessibility of the Post tended to present obstacles in the path of a successful counseling program, with the result that emphasis was placed on services rather than on counseling.

In order to secure the additional personnel required, it soon became necessary for the Agency to assure the new recruits satisfactory housing accommodations. To do this, in December 1942, a Housing Office was established. As there were no listings of available rooms, and no government dormitories, it was necessary for the officer in charge to be out of his office much of his time securing rooms.

The number of new employees to be housed grew until it became necessary to add to the Housing staff. By January 1943 the demands were so great, and rooms so scarce, that it was necessary to effect
VI. Civilian Personal Problems 1942-1945

A thorough canvass of Arlington County, going from door to door to secure every available room, and also to contact the various War Housing Officers.

The Federal Housing Authority greatly aided in solving the problem by constructing Arlington Farms. During the first week in March 1943, Idaho Hall, (named for the Housing Officer at Arlington Hall Station, whose home state was Idaho, because of his interest and efforts in having the dormitories finished) was opened to "Government Girls."

With the assistance of Arlington Farms, the various War Housing Offices, and cooperative housewives, the housing situation was alleviated.

In an effort to solve the serious morale problem caused by wartime conditions, attention was given to recreational facilities for the civilian employees. Such facilities as there were on the Post were not available for civilians because Arlington Hall Station was a military reservation with large numbers of military personnel, who had first claim to the tennis courts, the fields, the gymnasium, and the swimming pool. The employee counselors, therefore, turned their attention to establishing liaison with other agencies in the Washington area to make available for our employees the recreational resources of the Nation's Capital. As a part of this program groups of young women were sent to dances in Washington and on neighboring military posts. The counselors arranged picnics and parties and, through bulletins, notified civilian employees of events of importance in Washington.
CHAPTER VII. THE SECOND SIGNAL SERVICE BATTALION

A. Founding of the Company

The problem of providing administratively for the large numbers of enlisted personnel needed by the Signal Security Agency for the successful completion of its mission was met by assigning these enlisted men and women to the Second Signal Service Battalion, an organization which, as the War progressed, embodied many features not ordinarily associated elsewhere in the Army with the orthodox conception of a battalion. In strength, for example, the growth of the Battalion was phenomenal: at the end of the War it had surpassed 5,000 officers and enlisted men and women. The headquarters of the Battalion, in reality merely an Adjutant's office, never left the Military District of Washington, though detachments were stationed all over the world, and the work of the Battalion as a whole made outstanding contributions to the progress of military operations in every theater. In addition, the Battalion was ultimately, when hostilities ceased, commanded by a Brigadier General. Such departures from normal battalion organization were, however, fully justified by the success which attended the activities of the Second Signal Service Battalion.

Originally the Battalion on 1 January 1939 was activated as the Second Signal Service Company. Before that date the Signal Intelligence Service had been dependent for intercept material upon the
services of the First Radio Intelligence Company at Fort Monmouth
and on signal detachments of five Signal Service companies located
as follows:

7th - Fort Sam Houston, Texas
8th - Presidio, San Francisco, California
9th - Fort Shafter, Territory of Hawaii
10th - Fort McKinley, Philippine Islands
11th - Quarry Heights, Canal Zone

These individual detachments functioned under the supervision of the
signal officer in their respective corps areas or departments. There
was, however, a need for a centralized control in the person of a
single company commander who could integrate, as no single officer
then responsible for the units could, all personnel matters connected
with their intercept missions.

The existing situation constituted a threat both to the security
and to the general efficiency of the work as a whole, as well as to
the morale of the men themselves, facts which will be clear from the
following quotation taken from a letter of the Chief Signal Officer
to The Adjutant General on 2 September 1938:

2. Whereas the results achieved by the Signal Intel-
lligence Service in Washington are treated with the utmost in
care and secrecy, equal measures of secrecy are not taken with
the personnel of the Signal Intelligence detachments in the
field. The personnel of the signal intelligence detachments
cannot long be unaware of the nature of the work in which
they are engaged and the ultimate secrecy of the system as a
whole depends just as much upon them as upon the personnel in
Washington. At present the choice of signal intelligence
detachment personnel is left to the corps area and department
signal officers and there is no doubt that they exercise every
possible precaution. However, in the present form of organiza-
tion much is entirely out of their hands and beyond the control
of the Chief Signal Officer. For example, a skilled member of
the Signal Intelligence detachment in Hawaii is returned to the mainland. Unless he is in Grade 4 or above he is reduced to the grade of private and returned for haphazard assignment by the normal process. Even if he is eventually assigned to a Signal Intelligence detachment on the mainland, he must begin afresh in the grade of private and work himself up. Knowledge of this actuates many to separate from the service; every such man separated from the service carries with him a fairly accurate knowledge of the work upon which the Signal Intelligence Service is embarked and he constitutes just one more threat to the secrecy of the work. He is a far greater threat when separated from the service since he is no longer under military surveillance.

3. The haphazard movement of the enlisted personnel engaged in Signal Intelligence work also makes their training more difficult and lessens the effectiveness of the Signal Intelligence Service. The useful member of the Signal Intelligence detachment must be first of all an excellent radio operator and beyond that must acquire skill and experience peculiar to Signal Intelligence work; the acquisition of this skill and experience requires from six months to a year under competent instruction. At present, it is not possible to surely retain trained men; indeed it is not even possible to surely retain competent instructing personnel.

This letter goes on to recommend that the six detachments mentioned above be organized into the Second Signal Service Company, the personnel of which could be transferred, without loss of grade or rating, from one detachment to another as need required. In order to minimize the number of highly skilled personnel separating from the service, it was recommended that the company be allocated grades and ratings considerably higher on the average than is normal elsewhere in the Army. A further advantage of the plan proposed was that it

1. The Chief Signal Officer to The Adjutant General, subject: Signal Intelligence; 2 September 1938, OGSigO-350.3 RMD.
VII. The Second Signal Service Battalion

did not require additional men, grades, ratings, transportation, or equipment, since the suggestion merely involved centralizing the control over the six detachments already supplying the intercept material.

The plan was officially approved, as stated in the recommendations of 15 November 1938, to go into effect on 1 January 1939.²

The administrative arrangements for the company were outlined in a letter of 30 November 1938, sent to the signal officers in the corps areas and departments concerned.³ The first commanding officer of the new company was to be designated by the Commanding Officer, Fort Monmouth.⁴ Detachments on duty at other stations were to be placed on detached service and provided, as before, with administration, rations, and quarters by the Signal Service Company in their respective corps areas or departments.

The company was to be administered in a manner not dissimilar to other Signal Service organizations with certain exceptions, as is made clear in the following quotation from the letter of 30 November 1938 already cited:

². The Adjutant General to the Chief Signal Officer, subject: Second Signal Service Company, 15 November 1938, AG 320. 3 (9-2-38) Misc. (ret)-5-14.

³. The Chief Signal Officer to the Signal Officer, Panama Canal Department, subject: Second Signal Service Company, 30 November 1938, OCSigO 320.22.

⁴. This delegation of authority of appointment was limited to the designation of the first company commander only.
When requisitions for foreign service replacements of members of the 2d Signal Service Company are forwarded to the Chief Signal Officer by The Adjutant General, such requisitions will be extracted to the Commanding Officer of the 2d Signal Service Company, through the Commanding Officer, Fort Monmouth, the name of the replacement recommended, and the station from which the replacement is taken. The Commanding Officer, 2d Signal Service Company, will be responsible for maintaining both mandatory and volunteer foreign service rosters for the members of his organization. Applications for foreign service from members of the 2d Signal Service Company detachments will be forwarded through the Corps Area or Departmental Signal Officer direct to the Commanding Officer of the 2d Signal Service Company.

As the Second Signal Service Company was constituted in the basic directives of 15 November 1938, the grades and specialists ratings taken from the five detachments and the 1st Radio Intelligence Company were as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number in Grade</th>
<th>Number of Specialists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>101</td>
<td>78</td>
</tr>
</tbody>
</table>

The total authorized strength was therefore 101 enlisted men, of whom 78 of the 79 men in Grades 6 and 7 could be specialists. This allotment of grades was, however, almost immediately changed by the addition of one each for Grade 1, Grade 3, and Grade 4, with a corresponding deduction of three in Grade 7, leaving the total number of men the same.

5. The Adjutant General to the Chief Signal Officer, subject: Allotments of Grades and Ratings, 12 January 1939, AGO 221, (1-7-39) Enl.
B. Early Expansions

Another early attempt was made, however, to increase the allotted strength when the Chief Signal Officer replied to a request of The Adjutant General under a number of different military situations.

These paragraphs are worth quoting in full:

e. The detachments of the Second Signal Service Company, as now constituted, are properly located, but are lacking in personal and equipment to perform the necessary intercept work against four countries, during peace, impending neutrality, or enforced neutrality. Appendix III, which deals with the details of the proposed peacetime reorganisation and expansion of the Second Signal Service Company, shows in III-i a proposed table or organisation for the company, in III-B the ultimate cost of the additional grades and ratings, in III-C a plan for the five-year expansion of the company and in III-D the additional equipment needed, together with a plan for its procurement in five years.

d. The proposed reorganisation calls for an increase of 34 men in the peace strength of the company and for a very considerable increase in the grades and ratings allotted to it. Experience has shown that in intercept work, one well trained and experienced man is worth at least three ordinary operators. By offering relatively high grades and ratings to the personnel of the company, the finest type of radio operators can be attracted and held. It is hoped that the men who enter the company will make that service a lifetime career. This is most desirable, not merely to obtain and keep experienced men but far more in order to maintain the secrecy of the work. At the present time, when there is little inducement to the soldier to make intercept work a career, there is passing through our intercept detachments a steady stream of men who return to civil life. Each of these is fully aware of the purpose of the work and constitutes a potential leak for information about the signal intelligence service. The provision of relatively high pay for intercept work has been tried by the Navy Department with excellent results; it employs fewer operators to do a given task and its operators remain in the service.

6. 1st Ind., The Chief Signal Officer to The Adjutant General, 17 April 1939, 00SIDO 320.3 S.I.S. (9-24-38), particularly pars. 5 e-g and Appendix III.
III. The Second Signal Service Battalion

The recommendations made in the document just quoted were, however, not intended for immediate action but only as war plans.

A "Proposed Organization of Signal Intelligence Service," dated in a later hand "June 1939," is in the Battalion files. It provides for a total of four officers, one to be head of the SIS,
another to be instructor in the School, and two to be students in the School. The enlisted strength is given as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Provided</th>
<th>Required</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Sergeants</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Technical Sergeants</td>
<td>4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Staff Sergeants</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Sergeants</td>
<td>6</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>[Private First Class]</td>
<td>[64]</td>
<td>[25]</td>
<td>[89]</td>
</tr>
<tr>
<td>Specialist, First Class</td>
<td>4</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Specialist, Second Class</td>
<td>14</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Specialist, Third Class</td>
<td>20</td>
<td>3</td>
<td>23</td>
</tr>
<tr>
<td>Specialist, Fourth Class</td>
<td>18</td>
<td>8</td>
<td>26</td>
</tr>
<tr>
<td>Corporals</td>
<td>610</td>
<td>-6</td>
<td>0</td>
</tr>
<tr>
<td>Specialist, Fifth Class</td>
<td>2</td>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>56</td>
<td>130</td>
</tr>
</tbody>
</table>

Apparently, this table of organization was never adopted, for there is no record of approval of the 56 men who are here listed as required, with the note that they had been "already requested."

C. Transfer of Headquarters

From the founding of the Second Service Company its headquarters had been at Fort Monmouth, the permanent station of the first Company Commander, Earle F. Cook (then First Lieutenant, now Colonel), but it did not take many months of experience to see that if the new

7. The figures given on the original chart have been corrected so as to make them consistent in themselves. Note that the totals given for Privates First Class, (in brackets) must be omitted from the additions.

8. In the original this figure appears erroneously as 20.

9. In the original this figure appears erroneously as 59.

10. In the original this figure appears erroneously as 0.
arrangement was to work well, close cooperation between the Signal
Intelligence Service and the Second Signal Service Company would
require the headquarters of the two organizations to be at the same
place. Accordingly, Colonel Clyde L. Eastman, then Executive Officer
to the Chief Signal Officer, recommended to The Adjutant General on
6 September 1939 that the headquarters of the Company be transferred
to Washington.\textsuperscript{11} The recommendation was approved by The Adjutant
General to become effective on 1 November 1939.\textsuperscript{12} Since that date
the headquarters of the two organizations (and their successors)
have always occupied adjacent quarters. Simultaneous with the move,
Captain George A. Richer assumed command of the Company, Lieutenant
Cook remaining at Fort Monmouth in charge of the detachment which
did not move with Headquarters.

Whether the move was motivated at least in part by the outbreak
of the War in Europe is not clear from the record, but in any case,
the same month marked, as we have seen in preceding chapters, a move-
ment to expand the work of the Signal Intelligence Service as a whole.
Included in the general expansion was an item for the enlargement of
the Company by 1 officer and 26 enlisted men, needed to establish

\textsuperscript{11} Colonel Clyde L. Eastman to The Adjutant General 6 September
1939, subject: 2d Signal Service Company, 00SigO 320.3 (2d
Sig.Serv.Co.).

\textsuperscript{12} 1st Ind to above, AG 320.2 (9-6-39) \textsuperscript{r} (ret)-C, 24 October
1939. The actual strength on 31 October 1939 (the day before
transfer of Headquarters) was 2 officers and 110 men.
VII. The Second Signal Service Battalion

A new intercept station at Fort Hunt, Virginia. The grades for these enlisted men were specified in appendix D of the request, as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Master Sergeant</td>
<td>Trick Chief</td>
</tr>
<tr>
<td>1 Technical Sergeant</td>
<td>Trick Chief</td>
</tr>
<tr>
<td>1 Staff Sergeant</td>
<td>Trick Chief</td>
</tr>
<tr>
<td>1 Private 1st Class, Specialist 1st</td>
<td>Maintenance</td>
</tr>
<tr>
<td>6 Privates 1st Class, Specialist 2d</td>
<td>Radio Operators</td>
</tr>
<tr>
<td>6 Privates 1st Class, Specialist 3d</td>
<td>Radio Operators</td>
</tr>
<tr>
<td>6 Privates 1st Class, Specialist 4th</td>
<td>Radio Operators</td>
</tr>
<tr>
<td>4 Privates 1st Class, Specialist 5th</td>
<td>Radio Operators</td>
</tr>
</tbody>
</table>

This request was approved on 27 September 1939. Thus the Second Signal Service Company was at the end of the first year of its existence authorized to have 127 enlisted men, but it was not up to strength: there were actually only 102 enlisted men in it.

On 9 December 1939 the Company was authorized to have a First Sergeant, and, on 14 December 1939, Sergeant Oscar Wilder, Jr., was appointed First Sergeant by Company Order No. 35.

13. The Chief Signal Officer to the Assistant Chief of Staff, War Plans Division, thru the Assistant Chief of Staff, G-2, no subject, 14 September 1939, par. 5 b.

14. The Adjutant General to the Chief Signal Officer, subject: Signal Intelligence Service, 27 September 1939, AG 321-924 (9-14-39) M-WPD, par. 3, not affected by changes to this directive made on 2 November 1939.

15. The Adjutant General to the Chief Signal Officer, subject: Allotment of Grades and Ratings for Enlisted Men, AGO 221 (12-9-39)E.

16. Captain Wilder was Adjutant of the Battalion at the close of the War.
VII. The Second Signal Service Battalion

D. Expansion and Building Up to Strength

The problem of increasing the strength of the Second Signal Service Company to keep pace with the rapidly expanding needs of the Signal Intelligence Service was always an acute one. Correspondence from the beginning of 1940 to April 1942, when the Company became the Second Signal Service Battalion, shows that two chief concerns were: (1) increasing the authorized strength and the number of high ratings in the Company, and (2) obtaining adequate personnel to bring the Company up to strength and keep it there.

Even finding replacements for men who had completed a term in the Army and had left the service, or who had been transferred to other organizations, or who had been found to be unsatisfactory for the work was very difficult. As early as 8 January 1940 letters were sent to the Signal Officers in the corps areas listing the qualifications needed and requesting assistance in locating qualified enlisted men.17

A second circular letter was also sent on 11 July 1940 to the Signal Officers of the 1st, 2d, 3d, 4th, 5th, and 9th Corps areas containing this interesting paragraph:

2. There has been some difficulty in obtaining qualified replacements for this organization and it is desired that you discreetly canvass the Signal Corps enlisted personnel in your

17. The Chief Signal Officer to the Signal Officer, Ninth Corps Area, subject: Replacements Second Signal Service Company, 3 January 1940, CSSigO 220.33 2d 5500.
Corps Area with a view to submitting recommendations for transfer to this organization. In addition to meeting the qualifications in Paragraph 2 of the quoted extract, applicants should be qualified radio operators. In so far as possible, all transfers will be given the same grade and rating they now hold. The rate of promotion in this organization is very rapid. It is believed that this organization offers exceptional possibilities to those who intend to make the Army their career.\(^{18}\)

In spite of the fact that the Company was not up to authorized strength, the allotment was increased on 1 March 1940, for what specific reasons the record does not state, by two sergeants, fourth grade.\(^{19}\) On 3 April 1940 Colonel S. S. Akin stressed the fact that it was highly desirable for a trained cryptanalyst to be available in each of the overseas departments as an aid to the Cryptographic Security Officer and as a nucleus about whom a signal intelligence cadre could be built in time of war. The eventual aim would be to have a cryptographic specialist in each corps area as well as department. Consequently, Colonel Akin recommended that when any increase in personnel was authorized, the following additional personnel of the first three grades be allotted to the Second Signal Service Company:

1 Master Sergeant
2 Technical Sergeants, Cryptographic Speciality
3 Staff Sergeants

\(^{18}\) Executive Officer, OCSigO to Signal Officers, subject: Replacements Second Signal Service Company, OCSigO 22D, 33-21 Sig.Service Co. (1-11-40). A similar letter was also sent to the Commanding General of the Detachment at Fort Monroe on 17 July 1940.

\(^{19}\) The Adjutant General to the Commanding General, Third Corps Area, subject: Grades and Ratings, 1 March 1940, AG 221 (3-1-40))E.
VII. The Second Signal Service Battalion

At the same time Colonel Akin recommended increasing the strength of the Company by 10 men with the following grades and ratings:

3 Privates First Class, Specialist 1st
3 Privates First Class, Specialist 2d
4 Privates First Class, Specialist 3d

The reasons Colonel Akin gave for this increase are worth quoting in full:

This company is now organized with a minimum of personnel for the work to be performed and on the basis that all men are always present for duty. The services of approximately ten per cent of the men in the company are lost due to time lost in change of stations and delays on route (Almost 50% of the service is foreign service). It is necessary to have a certain overhead in order to keep the various detachments at a strength with which they can accomplish their mission.

At the end of the month (30 April 1940) the Company strength was as follows:

Captain George A. Bicher, Commanding Officer
3 Master Sergeants
1 First Sergeant (Oscar Wilder, Jr.)
3 Staff Sergeants
11 Sergeants
7 Corporals
48 Privates First Class
43 Privates
121 Total enlisted strength

Four losses were reported on this sheet, so there had been a maximum actual strength of 125 men of the 129 authorized.

A further request for an increase of the allotment was made on 4 June 1940, which asked for a total of 56 enlisted men, as follows:

20. Colonel S. B. Akin to Personnel Division, 8 April 1940.

21. RfW from Colonel S. B. Akin to Personnel Division, 4 June 1940, copy filed in General Files SPIS 322 (2d S.S. Bn) 1939-1941, Case No. 1172.
VII. The Second Signal Service Battalion

- 4 Master Sergeants
- 7 Technical Sergeants
- 9 Staff Sergeants
- 6 Privates First Class, First
- 6 Privates First Class, Second
- 12 Privates First Class, Third
- 12 Privates First Class, Fourth
- 56 Total

These 56 men were to be used as follows: 11 each for the Panama and Hawaii detachments for direction-finding duties which had previously been performed by Company personnel at the expense of monitoring. Ten were to be sent to the Philippine detachment to provide for interception of additional circuits. Fourteen were to be trained in cryptography for assignment (one each) to the War Department Message Center and the corps areas and overseas departments. The remaining 10 were to be used so as to offset the loss (estimated to be as high as 10 per cent) caused by the time needed to effect transfers.

By 6 June 1940 the need for the replacement of and additions to the radio operator personnel of the Second Signal Service Company had become so critical that the Signal Intelligence Service put in a request for 10 operators from the class graduating from the Signal Corps School on or about 1 August 1940. The investigation and board proceedings were to be accomplished prior to August so that the men would be immediately available upon their release from the

22. The fact that 56 men are involved here should not be confused with the request of June 1939 which also asked for the same number. The breakdown of the grades is, however, entirely different; the agreement of the totals is purely coincidental.

23. Unsigned SIS to Personnel, 6 June 1940.
school.

Records do not show whether the request of 6 June was approved, but by 19 August 1940 another plan was being formulated to obtain personnel from the Signal Corps School, since efforts to obtain qualified personnel from other sources in all corps areas and departments had been unsuccessful. The terms of the request were as follows:

In view of the fact that the Second Signal Service company is twenty per cent under strength and that the directives of this organization from the Chief Signal Officer are increasing in volume, it is requested that the Commandant, the Signal Corps School, be directed to select thirty (30) men for this company from men completing the radio courses at the Signal Corps School. Because of the acute demand for personnel for newly organized Signal Corps unit, it is not expected that this request will be met at once, but it is necessary if this organization is to continue its present wide-scale activities that an increment of not less than ten (10) men be provided at the earliest practicable date (and not later than September 15), and five (5) men per month be provided thereafter until the full quota of 30 has been supplied.24

How the shortage in personnel affected the Second Signal Service Detachment stationed at Fort Sam Houston, Texas, is set forth in detail by Colonel Goodwin Compton, Signal Officer of the Eighth Corps Area, in a letter dated 22 July 1940, in which he recommended to Colonel Akin that the detachment be increased from 15 to 20 men. Only then could an actual effective strength of 15 men be maintained on duty at all times and the current directive and other

special directives be handled efficiently. Colonel Compton explained
as follows the problem that the detachment faced:

Normally there are two men enroute to and from foreign
service at all times. Men assigned to this detachment from
overseas are usually granted a delay enroute of 90 days,
and their replacements from this detachment are usually
granted a delay enroute to enable them to care for personal
affairs prior to leaving, with added travel time to the
point of embarkation. The detachment is therefore without
these men from 100 to 120 days. At the end of this period
another group of two men is ordered to and from foreign
service. Additional local losses are incurred due to
personal absence through sickness, discharge per ETS or by
purchase, and on furlough. Thus reducing the actual strength
of the detachment by another two or three men. 25

Colonel Akin replied to Colonel Compton on 29 July 1940 that
the authorized strength of the Fort Sam Houston detachment had been
increased to 17 and that, with further increase in the strength of
the Company, the strength of his detachment would be increased
accordingly. But he also stressed the point that an increase in
authorized strength alone did not solve the problem of putting
additional qualified men on duty. He urged that serious effort
be made to obtain men by transfer or reenlistment from other or-
ganizations in the Eighth Corps Area. 26

A new plan for procuring enlisted men for the Second Signal

25. Colonel Goodwin Compton, Signal Officer to Commanding Officer,
2d Signal Service Co., Office of Chief Signal Officer,

26. From Colonel S. S. Akin 29 July 1940 to Colonel Goodwin Compton,
Signal Officer, Eighth Corps Area.
Service Company was put forth on 4 November 1940 in a letter from Brigadier General Dawson Olmstead to the Chief Signal Officer. General Olmstead pointed out that the three principal sources of enlisted men (volunteers from organizations at Fort Monmouth, the Domestic Replacement Pool, and the Overseas Replacement Pool) were virtually closed at this time on account of the expansion of the Signal Corps. To remedy this situation, General Olmstead suggested that:

a. Replacements for foreign service stations be selected from the Overseas Replacement Pool as far as possible.

b. Authority be granted to examine men who are students at the Signal Corps School from any Signal Corps organization with a view to their transfer to the 2nd Signal Service Company.

c. That the grades and ratings in the 2d Signal Service Company be adjusted so that the lowest paid grade shall be private first class, specialist third class. 27

On 14 November 1940 Colonel Clyde L. Eastman wrote the Commandant of the Signal Corps School that the Chief Signal Officer had concurred in recommendations a and b quoted above. 28 As for the third recommendation, an unsigned R&W to Personnel dated 6 November 1940 states that, effective 2 December 1940, the


28. Colonel Clyde L. Eastman to the Commandant, Signal Corps School, Fort Monmouth, N. J. CSSig 0320.22 (2nd SS Co).
authorized grades and ratings of the Second Signal Service Company would be considerably increased, so that the lowest paid grade would then be that of private first class, specialist fourth class. 29

What action was taken on the request made 4 June 1940 for an increase of the authorized strength is, as has been said, not known: no record of any action has been found in the files, but either the request was approved in part, or the Company was permitted to become over strength, for on 12 November 1940 the strength was 145 enlisted men (85 of them in grades 6 and 7 with specialist ratings). 30 Consistent with this view is the fact that the next recorded increase of authorized strength, made on 21 February 1941, raised the total strength to 150 enlisted men, which represents an increase of five men over the actual strength of the preceding November, or 21 men over the last recorded increase of allotment, assuming that the request for 56 men made in June 1940 had not been favorably received. In any case, on 21 February 1941 the authorized strength of the Company was revised to the following: 31

29. Unsigned Rawl to Personnel, subject: Replacements Second Signal Service Company, 6 November 1940.

30. Rawl, SIS to Executive Officer, COSigO through Personnel Division subject: Temporary Grades and Ratings for the Second Signal Service Company, 12 November 1940, signed Colonel S. B. Akin.

31. The Adjutant General to the Commanding Officer, Second Signal Service Company, subject: Allotment of grades and ratings, and authorized strength, 21 February 1941, AG 221 (2-18-41) E. The original request for this revision is not available, but its date must have been 18 February 1941.
VII. The Second Signal Service Battalion

1 Master Sergeant
1 First Sergeant
2 Technical Sergeants
18 Staff Sergeants
25 Sergeants
18 Corporals
73 Privates First Class
6 Privates
150

In the following April Colonel S. B. Akin, then Officer in Charge of the Signal Intelligence Service, submitted to the Officer in Charge, Personnel Division, Office of the Chief Signal Officer, a memorandum in which he proposed changes in the Table of Organization of the Company. While the recommendations in this memorandum were never approved, the text of the document is of the greatest interest because it emphasizes the difficulties faced by the Company at that time in getting qualified personal to work for low ratings.

1. Enclosed herewith is a proposed table of organization of the Second Signal Service Company showing distribution of grades and ratings for enlisted personnel in compliance with recent verbal agreement. This table envisages the promotion into the first three grades of approximately fifty percent of the men of this organization having over one year's service as of January 1, 1941, as outlined in letter CCSigO dated February 25, 1941 but does not contemplate the transfer of men thus or previously promoted out of the organization for the reasons outlined below.

2. The enclosed table is based upon the organization of the company as it now functions with six operating detachments in the field and a headquarters detachment in Washington. This set up is of course subject to change; and increase in the number of operating detachments would

32. Colonel S. B. Akin to Officer in Charge, Personnel Division, CCSigO, subject: Table of Organization, 2nd Signal Service Company, 16 April 1941, copy filed in Battalion archives.
further justify the grades and ratings proposed. A brief explanation of some of the details in the proposed table follows:

a. Warrant Officers. Signal Corps officer requirements as set up at present do not provide for officers in charge of the detachments Second Signal Service Company. While nominally under the supervision of Corps Area and Department Signal Officers, the pressure of other duties prevents such officers or their assistants from devoting the time necessary for the careful supervision of the vital work carried on by the Second Signal Service Company. It is believed this deficiency could be eliminated by providing warrant officers within the organization who would form a permanent crew of station supervisors. This is in line with the policy of the Navy in parallel activities. Until such time as warrant officers can be authorized, master sergeants can be employed in this capacity.

b. Headquarters detachment. The Headquarters Detachment here in Washington is charged not only with company administration but must also supply maintenance personnel for cryptographic equipment. The Chief Signal Officer has ruled that the Signal Intelligence Service will be responsible for storage, issue, and maintenance of confidential and secret cryptographic devices, and the furnishing of enlisted personnel for this activity is a proper responsibility of the Second Signal Service Company because of the nature of the work involving as it does a most careful selection of personnel.

c. Operating detachments. The duties of personnel assigned the operating detachments are comparable to that of operators on the War Department radio net. These operators are for the most part civilian employees at $1800 per annum. The loyalty and integrity of Second Signal Service Company operators must be even higher than that of the civilian operators. Obviously some means must be found of obtaining higher remuneration for such enlisted men than in the average company of Signal Corps troops. Failure to provide such increased compensation is unjust not only in respect to the duties performed by these operators, but also in respect to their opportunities of obtaining promotion were they assigned to some other Signal Corps unit. It is a well-known fact that any enlisted man possessing the qualifications necessary for transfer to the Second Signal Company is eligible for consideration for promotion in the first three grades.
under the provisions of letter OOSigO, February 25, 1941
were he assigned to another organization. To permit
transfers out of the Second Signal Service Company in
order to provide equal opportunity would seriously impair
the work being done, and to prevent such transfer with-
out adequate promotion within the organization is a severe
blow to morale which is equally undesirable.

3. The proposed table of organization has been determined
after thorough and careful consideration. While at first glance
the number of high grades and ratings may appear excessive, it
is believed that any scaling down below the proposed allotment
as a minimum would tend to increase the difficulty of securing
and holding the high type of personnel necessary to the proper
functioning of this unit. It is accordingly recommended that
every effort be made to obtain approval for the grades and
ratings proposed.

The proposed table of organization referred to did not call for
a larger allotment of persons than the then current allotment, that
is, 150 men, but it did propose higher grades and ratings, which expres-
sed in a slightly condensed form, were as follows:

Warrant Officers or Master Sergeants

- One in charge of each intercept station: 7
- Technical advisor to OK, SIS: 1
- Instructor, Signal Intelligence School: 1

Master Sergeants

- Chief Radio Operators: 7
- Radio Receiving Engineers: 7
- Instructors, Signal Intelligence School: 2
- Sergeant Major: 1

Technical Sergeants

- Assistant Chief Radio Operator: 21
- Radio Electricians: 7

TOP SECRET
### VII. The Second Signal Service Battalion

**Staff Sergeants**

| Radio Operators | 28 |

**Sergeants**

| Radio Operators | 26 |
| Administration and Supply | 7 |

**Private First Class**

| Radio Operators | 26 |

**Private**

| Radio Operators | 5 |
| Total | 150 |

| Specialists Ratings Third Class | 21 |
| Specialists Ratings Fourth Class | 12 |
| Total | 33 |

Thus, all 33 men in Grades 6 and 7 would be provided with specialists ratings. The effort to provide for warrant officers was, however, unsuccessful; nor was it possible to provide master sargeants for these positions. In the table of organization as proposed there were 26 positions calling for master sargeants as the minimum grade, yet, as will shortly be seen, a year later the authorized allotment of master sargeants for the Battalion was still only one out of 709 men.

On 1 July 1940 Captain Harold G. Hayes, then Assistant Officer in Charge of the Signal Intelligence Service, was directed to assume additional duties with the Second Signal Service Company, and Captain George A. Bicher was relieved as Commanding Officer.  

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himself was relieved of the post on 1 September 1940, by Captain
(now Colonel) Eric H. F. Svansson who was in turn succeeded on 28
June 1941 by Captain (now Colonel) Earle F. Cook and on 19 November
1941 by Captain (now Colonel) Robert E. Schukraft. It was the
latter who was in command on the day of the Pearl Harbor attack.
He was then directly in charge of a detachment in Washington con­
sisting of 28 men and was also Commanding Officer of the Company
as a whole. 34

During Captain Cook's term as Company Commander orders were
sent to the detachments directing that monthly reports be made to
Headquarters with reports on changes of duty status to be sent to
Washington by radio. 35 This procedure was followed throughout the
War.

On 27 October 1941 Captain Cook set forth in a letter to the
Chief Signal Officer the conclusions reached after a study of the
personnel problems of the Second Signal Service Company and made
recommendations for changes in the table of organization of the
Company. Captain Cook pointed out that a large number of men in

34. Ever since the Company had been activated, on 1 January 1939,
the relations between it and the parent organization (the Signal
Intelligence Service) had been close. One enlisted man, Sergeant
Stanley A. Kretlow, (now a Captain) had been stationed in
Washington from the beginning.

35. Capture Earle F. Cook to all detachments, subject: Second
Signal Service Company, 22 July 1944 (Battalion files).
the Company were thoroughly qualified for promotion to a staff grade and that these men would undoubtedly hold such a grade if they were on duty with other Signal Corps organizations where they could be judged according to experience, ability, and length of service in competition with other men of the higher grade. This unfair situation was causing a loss of valuable trained personnel and was thus not only aggravating an already acute shortage but was even undermining the morale of the organization:

The morale factor in such a situation requires little comment. Any organization made up of men chosen from those with only the highest of qualifications, who are required, in turn, to perform delicate work upon secret matter with a degree of efficiency could expect to be rewarded with at least the same level of promotion accorded other enlisted men. If, on the other hand, they must remain in such an organization with no prospect of advancement and watch other men on all sides progress rapidly, it can only destroy morale. The situation creates shortages in personnel which increase the burden on those who remain. They lose their normal allowance of leave, and the detachments suffer tremendous hardships in the event of sickness. Few men are willing to enter such an organization.36

The table of organization which Captain Cook proposed to remedy this situation was exactly the same one (quoted at length above) which Colonel Akin had requested for the Company on 16 April 1941.

On 25 November 1941, in compliance with an oral request, the following recommendation for a new table of organization for the Second Signal Service Company, upon the expansion of the Army by 1,700,000, was submitted to the Officer in Charge, Military

36. Captain Earl F. Cook to the Chief Signal Officer thru Officer in Charge, Signal Intelligence Service, subject: Table of Organization, 2d Signal Service Company, 27 October 1941.
VII. The Second Signal Service Battalion

Personnel Division:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Sergeants</td>
<td>24</td>
</tr>
<tr>
<td>Technical Sergeants</td>
<td>30</td>
</tr>
<tr>
<td>First Sergeants</td>
<td>1</td>
</tr>
<tr>
<td>Staff Sergeants</td>
<td>114</td>
</tr>
<tr>
<td>Privates First Class</td>
<td>159</td>
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<tr>
<td>Privates</td>
<td>114</td>
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<tr>
<td>Total</td>
<td>458</td>
</tr>
</tbody>
</table>

Ratings:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist, First Class</td>
<td>61</td>
</tr>
<tr>
<td>Specialist, Second Class</td>
<td>58</td>
</tr>
<tr>
<td>Specialist, Third Class</td>
<td>16</td>
</tr>
<tr>
<td>Specialist, Fourth Class</td>
<td>24</td>
</tr>
<tr>
<td>Specialist, Fifth Class</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>243</td>
</tr>
</tbody>
</table>

The justification given at the time for grades and ratings which would place the Second Signal Service Company far above any other Signal organization in strength is of interest:

It is desired to emphasize the fact that the very vital work now being carried on by this organization is today being seriously handicapped by the desire of enlisted men to separate themselves from the organization upon expiration of their term of service since, with the qualifications they possess, they are able to secure appointment in the first three classes almost immediately in any other organization needing radio personnel. Re-enlistments within the organization are becoming an exception rather than a rule and some step should be taken to supply the necessary vacancies in the higher grades in order to retain within the organization the qualified type of men which the work demands. 37

The difficult situation in regard to shortage of personnel that the Second Signal Service Company found itself in just before

37. Unsigned copy of SW to the CIC, Military Personnel Division, 25 November 1941.
the outbreak of the World War II is clearly seen in the response met
by General MacArthur's effort to increase the strength of the Philip-
pine detachment on 24 November 1941. On that date General MacArthur
sent the following radiogram from Manila to AGWAR:

Philippine detachment of Second Signal Service Company
has an authorized strength of twenty-four enlisted men.
Present strength is sixteen, with fifteen available for duty.
Of these, four will be returned to the United States by
February. In order to bring this detachment to maximum out-
put and to provide personnel for operations of direction find-
ing equipment shortly to be installed, it is recommended that
the strength be increased to thirty-two at the earliest
possible date. New men should be qualified to begin work upon
arrival. 38

In reference to this request, on 6 December 1941 (a date signifi-
cant in history) Lieutenant Colonel R. W. Minckler recommended the
approval of the request, but with the following qualifications:

Great difficulty has been experienced in obtaining
replacements for the Second Signal Service Company pursuant
to requests that have been submitted. The company is today
thirty-three men under strength with little immediate hope of
filling the vacancies through normal personnel procurement
methods since a very high type of radio operator is required.
To attempt to provide personnel for the Philippines by
arbitrarily taking them from other detachments should not even
be considered, for such a policy would wreck the other inter-
cept stations, which are also operating under strength.
Attention is invited to the fact that all detachments of the
Second Signal Service Company are today on a war-time operating
basis. They are equally important to the War Department and
nothing should be permitted to interfere with carrying out
their current highly important directives. 39

38. Manila to AGWAR, No. 962 November 24th. AG 320.2 (11-24-41)Mc.

39. Lieutenant Colonel R. W. Minckler, Memorandum for the Acting
Chief Signal Officer through OIC, Operations Branch, subject
Replacements Second Signal Service Company, 6 December 1941.
Colonel Kinckler concluded with a recommendation that a directive be sent by the Adjutant General to the Commanding Generals of all corps areas requiring orders to be issued to transfer in present grade radio operators from their several areas to bring the various detachments of the Second Signal Battalion up to strength.

Two progress reports to the Commanding General, Third Corps Area, show what the strength of the Company was just before and immediately after the outbreak of the War:

<table>
<thead>
<tr>
<th>Present in Third Corps Area</th>
<th>21 November</th>
<th>8 December 1941</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporarily absent in Second Corps Area</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>&quot;</td>
<td>72</td>
<td>69</td>
</tr>
<tr>
<td>&quot; Eighth Corps Area</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>&quot; Ninth Corps Area</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>&quot; Hawaiian Department</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>&quot; Panama Department</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>&quot; Philippine Department</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>&quot; at work for Assistant Chief of Staff, G-2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>175</td>
</tr>
</tbody>
</table>

The phrase "temporarily absent" in these two progress reports is an allusion to the fact that Headquarters, Second Signal Service Company, were in the Third Corps Area, though some of the detachments were technically "absent" from that command. The morning report for 7 December 1941 (now in the Battalion files) shows that on that day there were 28 enlisted men in Washington and 149 elsewhere, a total of 177 in all. Company strength would normally fluctuate slightly from day to day; the fact that strength had decreased between 21 November and 8 December by four does not reflect a policy of
VII. The Second Signal Service Battalion

E. wartime Expansion

The first wartime expansion of the Second Signal Service Company began with a request for approval of a proposed table of organization which was sent to the Military Personnel Division on 14 February 1942. The text of this important document is as follows:

1. The Second Signal Service Company was organized to perform radio intercept missions for the War Department. The number of intercept stations has been increased and more are contemplated. In addition to intercept duties, it has been found desirable that this organization should encompass all of the Signal Intelligence activities of the War Department for which enlisted personnel must be furnished. At the present time the students and enlisted instructors in the Cryptographic Division, Signal Corps School, as well as a detachment on duty in the Signal Intelligence Service, Office of the Chief Signal Officer, are assigned to the

40. There exists in Battalion files a carbon copy of an unsigned memorandum typed on stationery of Headquarters, Second Signal Service Company, dated 5 December 1941, which indicates the authorized strength as 150, the actual strength 117, and under strength 33. The Memorandum from Lieutenant Colonel R. W. Minckler to the Acting Chief Signal Officer mentioned above (footnote 39) also stated that the Company was 33 men under strength on 6 December 1941. If the unsigned memorandum was the work of some one who knew correct under strength but had no information about some increase, here unrecorded, in the authorized strength of the Company, the four signed documents remain in accord.

41. Lieutenant Colonel R. W. Minckler to Officer in Charge, Military Personnel Division, thru Officer in Charge, Army Communications Branch, subject: Reorganization of the Second Signal Service Company, 14 February 1942, OS110 311.5-General (2-14-42).
Second Signal Service Company as surplus personnel for whom no grades or ratings are available. The organization has long ago exceeded normal company size and it is, therefore, recommended that in accordance with the enclosed Table of Organization, the company be reorganized as the Second Signal Service Battalion.

2. A brief explanation of the proposed organization follows:

a. Headquarters Detachment (Column 3)
   The Battalion Commander and the Second in Command are assigned to additional duty in the Traffic Section of the War Department, S.I.S. The operating directives to the various intercept detachments should preferably be coordinated by the organization commander, who should have, at the same time, an intimate knowledge of the types of traffic desired and the details of its reception. The third officer in the Headquarters Detachment is assigned to administrative duties solely. Enlisted administrative personnel consist of one Sergeant Major, one Supply Sergeant, and two clerks.

b. School Detachment (Column 4)
   The School detachment comprises both students and enlisted instructors. The commissioned instructors are members of the staff and faculty, Signal Corps School. It is believed desirable to assign to the Second Signal Service Battalion enlisted students in cryptographic training, since it provides better administrative control of their instruction and later assignment.

c. The War Department S.I.S. Detachment (Column 5) represents the personnel considered necessary to adequately perform the Signal Intelligence functions of the War Department during war time. A successful prosecution of Signal Intelligence activities requires the concentrated efforts of a large group of highly trained and skilled personnel.

d. G.H.Q., S.I.S. Detachment (Column 6) is not an organic part of the Second Signal Service Battalion. It is attached to the Battalion during such time as the G.H.Q. remains in the vicinity of Washington, D.C. Upon departure of G.H.Q., this detachment returns to Headquarters, Signal Service, G.H.Q.
VI. The Second Signal Service Battalion

e. Fifteen Intercept Detachments (Column 7) have been set up as needed to adequately provide the radio intercept coverage desired by the War Department. Each detachment consists of one officer and twenty-five enlisted men. Experience has shown that a detachment of this size is required to man an intercept station and furnish twenty-four hour service. At the present time eight intercept stations are in operation. Most of them are inadequately manned to perform the intercept service directed. They vary in size from about ten operators, the smaller stations being made so necessarily because of the limited authorized strength of the Second Signal Service Company.

f. Transportation to consist of one truck, pickup for Headquarters Detachment and for each of the Intercept Detachments has also been provided. This is considered necessary to assure the prompt handling of the intercepted traffic in dispatching it from intercept stations to the War Department or a transmitting agency.

3. The grades and ratings asked for are proportionately large for a battalion strength organization, as is the present allotment of grades and ratings for company strength. The high degree of training and the special qualifications necessary for the various phases of Signal Intelligence duty, upon which this personnel will be engaged, make the setting up of adequate grades and ratings a necessity. Enlisted men who are performing the specialized duties of this organization forfeit their chance for rapid advancement, which would undoubtedly sore their way if they were assigned to field organizations. It is therefore unjust to the individual and destructive to morale, in fact, to penalize him because of his assignment to this service organization.

4. Early consideration of this proposal is requested, in view of the conditions existing as mentioned in Paragraph 1 above. If the Second Signal Service Company is not to be enlarged to absorb in proper grade the personnel assigned to the Cryptographic School and to the War Department, S.I.S., other arrangements should be made to enable the promotion of the increasing number of men in seventh grade who are being so assigned.

The proposed table of organization attached to the document just quoted calls for the following enlisted men:
VII. The Second Signal Service Battalion

Master Sergeant 77
Technical Sergeant 85
Staff Sergeant 115
Sergeant 92
Corporal 23
Private, First Class 364
Total 756

Although paragraph 4 of the request asked for early consideration, final approval had not reached the Company on 11 March 1942, when Colonel Minckler informed the Chief, Army Communications Branch (Brigadier General Frank E. Stoner), that it was understood that the recommendations and table of organization were now "in the hands of G-1 according to the Military Personnel Division." 43

What had happened is revealed by the following paragraph taken from a Routing and Work Sheet dated 23 March 1942, signed R. R. Kilgore, Military Personnel Division:

The recommendation for the reorganization of the 2nd Signal Service Company was sent to the Adjutant General by the Military Personnel Division on March 3, 1942. On March 21, 1942, the status of this recommendation was as follows:

The above recommendation was received in the Adjutant General's Office on March 4, 1942, and through error was stamped for file by a clerk and placed in the dead file. This correspondence was

42. Memorandum for General Stoner from Lieutenant Colonel R. W. Minckler, 11 March 1942, OSSigO 311.5-General (3-11-42), par. 1, confirms this total.

43. Memorandum for General Stoner from Lieutenant Colonel R. W. Minckler, 11 March 1942, OSSigO 311.5-General (3-11-42) par. 1.

44. General Files SPIS 322 (2nd Sig. Serv. Bn.) March-April 1942, Case No. 1160.
VII. The Second Signal Service Battalion

Located on March 21, 1942, by an officer from the Military Personnel Division, who gave it to Colonel Brockbridge, Miscellaneous Section, The Adjutant General’s Office, who started immediate action to get it through The Adjutant General’s Office. Every effort will be made to push this thru the Staff with the minimum of delay, and Military Personnel will keep you advised of the status.

About three weeks later (14 April 1942) the necessary approval was received from The Adjutant General’s Office for the change of name to Second Signal Service Battalion and increase of the allotted enlisted strength to the following:45

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Sergeant</td>
<td>26</td>
</tr>
<tr>
<td>First Sergeant</td>
<td>1</td>
</tr>
<tr>
<td>Technical Sergeant</td>
<td>49</td>
</tr>
<tr>
<td>Staff Sergeant</td>
<td>9</td>
</tr>
<tr>
<td>Technician</td>
<td>74</td>
</tr>
<tr>
<td>Sergeant</td>
<td>1</td>
</tr>
<tr>
<td>Technician</td>
<td>141</td>
</tr>
<tr>
<td>Corporal</td>
<td>16</td>
</tr>
<tr>
<td>Technician</td>
<td>188</td>
</tr>
<tr>
<td>Private First Class</td>
<td>106</td>
</tr>
<tr>
<td>Private</td>
<td>107</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>769</strong></td>
</tr>
</tbody>
</table>

As the last previous allotment had provided for a total of only 190 enlisted men in all grades, the increase was 579 enlisted men.

Though this new allotment represented only about 20 per cent of the maximum strength the Battalion was destined to reach, the increase of 14 April 1942 was at that time phenomenal.

On 27 July 1942 orders were issued by The Adjutant General to the Commanding General, Third Service Command, for the transfer of

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45. The Adjutant General to the Chief Signal Officer, subject: Reorganization of the 2nd Signal Service Company, 14 April 1942, MG 320.2 (3-3-42).
4 officers and 80 enlisted men to Vint Hill Farms Station, the site of the new Eastern Primary Monitoring Station. 46

Large as the last increase of allotted strength had been, on 14 September 1942 Colonel Frank W. Bullock, who had succeeded Lieutenant Colonel Max W. Minckler as Officer in Charge, Signal Intelligence Service, requested another increase. 47 He requested that the allotment of 709 enlisted men be increased to 2789, with grades as follows:

1. Master Sergeant 133
2. First Sergeant 0
   Technical Sergeant 238
3. Staff Sergeant 12
   Technician 334
4. Sergeant 26
   Technician 397
5. Corporal 53
   Technician 396
6. Private, First Class 586
7. Private 614

Total 2789
Less Present 709
Net increase 2080

At the same time an increase in officer allotment for the Battalion was requested.

46. The Adjutant General to the Commanding General, Third Service Command, subject: Orders, 27 July 1942, AG 320.2 (7-17-42) MA-5-H.

47. Memorandum for Officer in Charge, Military Personnel Division, through Director, Army Communications Service, subject: Second Signal Service Battalion, 14 September 1942, SPIS 311.5-General (9-14-42).
VII. The Second Signal Service Battalion

<table>
<thead>
<tr>
<th>Rank</th>
<th>Present Authorized</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonel</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lieutenant Colonel</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Major</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Captain</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>First Lieutenant</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>Second Lieutenant</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>Warrant Officers</td>
<td>0</td>
<td>12 (Communications)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 (Cryptographic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 (Supply)</td>
</tr>
</tbody>
</table>

Since even the present enlisted strength of the Battalion was large for that type of organization, it was proposed that the organization be redesignated the Second Signal Service Command. This suggestion was not favorably considered. It was pointed out that confusion would result with the use of the words "service command" which had recently been adopted to replace the older designation "corps area." To this Colonel Bullock replied as follows:

1. The expression 'overhead personnel' is not accurately descriptive of the requirement on which the proposed organization is based. The organization while not tactical in the sense that it is mobile, is charged with one of the most important combatant functions undertaken by any troop unit.

2. The term 'command' is considered preferable to 'regiment' or similar designation because the unit is not

48. By Colonel H. L. P. King, Chief, Military Personnel Division, action 2 to R&W from Brigadier General Frank E. Stoner to Military Personnel Division, forwarding Colonel Bullock's suggestion. SPDIS General Files 322 (Second Sig Serv En September–October 1942).

49. Other parts of the Army did not avoid this confusion: e.g., the "Air Forces Technical Service Command."

sub-divided into standard type battalions or companies, but is rather completely fluid within its organic structure. Each sub-division is essentially a 'task' force designed to discharge a particular mission.

No further changes were made, however, in the name of the Battalion.

Nevertheless, the main request, that for an increase in allotted enlisted strength, was forwarded on 24 September 1942 with a favorable recommendation to the Military Personnel Division, Services of Supply. Complete approval to the request as originally made was, however, not immediately given. The Adjutant General, on 30 October 1942, increased the allotted strength by exactly half the requested number but directed that on 1 January 1943, and again on 1 April 1943, the Battalion might again request an increase equal to 25 per cent of the original figure. In this way a plan was made to provide ultimately all the enlisted men that were asked for but over a period of about eight months. For the immediate future the allotment was to be as follows:

51. Chief, Military Personnel Division, OOSigO, to Chief, Military Personnel Division, Services of Supply, 24 September 1942, subject: Allotment of Grades and Authorized Strength to the Signal Corps, Services of Supply, for the Second Signal Service Battalion, SP5MP 320.22 (gen).

52. The Adjutant General to the Chief Signal Officer, 1st Ind. to document cited in note 51, 30 October 1942, AG 221 (9-30-42) PE-A-SPGA.

53. Note that the one first sergeant previously allotted was removed, so the total of new positions approved is 1041, one more than exactly half of what had been asked.
VII. The Second Signal Service Battalion

<table>
<thead>
<tr>
<th>Rank</th>
<th>Additional</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Master Sergeant</td>
<td>53</td>
<td>79</td>
</tr>
<tr>
<td>2 Technical Sergeant</td>
<td>99</td>
<td>144</td>
</tr>
<tr>
<td>3 Staff Sergeant</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4 Technician</td>
<td>130</td>
<td>204</td>
</tr>
<tr>
<td>5 Sergeant</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>6 Technician</td>
<td>128</td>
<td>269</td>
</tr>
<tr>
<td>7 Corporal</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td>8 Technician</td>
<td>104</td>
<td>292</td>
</tr>
<tr>
<td>9 Private, First Class</td>
<td>260</td>
<td>346</td>
</tr>
<tr>
<td>10 Private</td>
<td>253</td>
<td>360</td>
</tr>
<tr>
<td>Total</td>
<td>1041</td>
<td>1749</td>
</tr>
</tbody>
</table>

Maximum use of "limited service" personnel was directed. The possibility of using enlisted women was to be studied, and when the next request was made, it was to show exactly how all of the 1749 enlisted men were being currently employed.

Some idea of the difficulties encountered in filling the allotted strength may be derived from the fact that, of 521 men received by the Battalion at Vint Hill Farms Station from the Fifth Service Command, as many as 28 were found to be illiterates and had to be transferred elsewhere, since it had been intended to use these men for highly specialized work.54

In compliance with the directive of The Adjutant General, dated 30 October 1942, a request for 520 additional enlisted men.

54. R&W from Colonel R. W. Minckler, Commanding Officer, Vint Hill Farms Station to Commanding Officer, Arlington Hall Station, 11 December 1942, SPSIS 322, 2d Sig Serv Bn, Nov-Dec 42, Case No. 1162. This document gives the names and serial numbers of the illiterates but does not specify the precise meaning of the term "illiterate" as used therein.
was made early in January 1943 and was approved by The Adjutant General on 14 January 1943. Grades were distributed as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Additional</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Master Sergeant</td>
<td>27</td>
<td>106</td>
</tr>
<tr>
<td>2 Technical Sergeant</td>
<td>47</td>
<td>191</td>
</tr>
<tr>
<td>3 Staff Sergeant Technician</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4 Sergeant</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>5 Corporal</td>
<td>9</td>
<td>44</td>
</tr>
<tr>
<td>6 Private First Class</td>
<td>120</td>
<td>466</td>
</tr>
<tr>
<td>7 Private</td>
<td>127</td>
<td>487</td>
</tr>
<tr>
<td>Total</td>
<td>520</td>
<td>2269</td>
</tr>
</tbody>
</table>

Battalion strength on 31 December 1942 was as follows:

- Headquarters, Arlington Hall Station: 501
- Detachment, Vint Hill Farms Station: 808
- Detachment, Two Rock Ranch Station: 154
- Detachment, Fort Sam Houston: 20
- Detachment, Corozal, Canal Zone: 22
- Detachment, Fort Shafter, T. H.: 22
- Detachment, Fairbanks, Alaska: 13
- Detachment, Bellmore, Long Island, N. Y.: 5
- Assistant Chief of Staff, G-2: 7
- Task Force "X": 2
- Missing in the Philippine Islands: 10
- Total: 1,573

Though originally The Adjutant General had directed the Battalion to prepare a similar request for 530 additional enlisted men about 1 April 1943, the request was made at an earlier date and The Adjutant General approved the increase on 24 March 1943.

55. 12 March 1943.

56. The Adjutant General to the Chief Signal Officer, subject: Allotment of Grades and Authorized Strength, 24 March 1943, AG 221 (3/12/43)73-a-SPGA.
This new allotment was distributed between the seven grades exactly as had been that of 14 January 1943, so that the allotment now stood as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Master Sergeant</td>
<td>133</td>
</tr>
<tr>
<td>2 Technical Sergeant</td>
<td>238</td>
</tr>
<tr>
<td>3 Staff Sergeant</td>
<td>12</td>
</tr>
<tr>
<td>Technician</td>
<td>334</td>
</tr>
<tr>
<td>4 Sergeant</td>
<td>26</td>
</tr>
<tr>
<td>Technician</td>
<td>397</td>
</tr>
<tr>
<td>5 Corporal</td>
<td>53</td>
</tr>
<tr>
<td>Technician</td>
<td>396</td>
</tr>
<tr>
<td>6 Private First Class</td>
<td>536</td>
</tr>
<tr>
<td>7 Private</td>
<td>514</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2759</strong></td>
</tr>
</tbody>
</table>

From the activation of the Second Signal Service Company on 1 January 1939 that organisation had had a company commander who was, though technically independent of the Signal Intelligence Service, actually a part of the staff of that service; but on 19 November 1942 Colonel Frank W. Bullock, who had been Officer in Charge of the Signal Intelligence Service since 18 April 1942, assumed command of the Battalion as well. In this way control of the Battalion was unified with that of the Agency, which at the moment was known as the Signal Security Service. At the time Colonel Bullock assumed command of the Battalion, a new post was created, that of Commander of Troops, Arlington Hall Station. The first incumbent was Major (afterwards Lieutenant Colonel) Harry J. Lewis. The duties of this officer were in essence a delegation of authority by the Commanding Officer Second Signal Service Battalion. The following officers have served in this capacity in succession: Lieutenant Colonels Harry J. Lewis, Joseph W. Johnston,
 VII. The Second Signal Service Battalion

James E. Black, and James H. Frier, Jr.

Mention should be made of the removal of Battalion Headquarters from the Munitions Building, Washington, D. C. to Arlington Hall Station, a move which took place on 7 July 1942. Colonel Bullock was himself relieved on 1 February 1943, of his responsibilities as Commanding Officer, Signal Security Service, Second Signal Service Battalion, and Arlington Hall Station. He was succeeded by Colonel (now Brigadier General) W. Preston Corderman.

On 11 February 1943 a report was submitted, as directed by higher authority, on Officer Requirements through 30 September 1943, for the Signal Security Service and Second Signal Service Battalion.57

<table>
<thead>
<tr>
<th></th>
<th>Col</th>
<th>Lt Col</th>
<th>Maj</th>
<th>Capt</th>
<th>1st Lt</th>
<th>2nd Lt</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Present Allotment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal Security Service</td>
<td>3</td>
<td>9</td>
<td>40</td>
<td>73</td>
<td>109</td>
<td>201</td>
<td>335</td>
</tr>
<tr>
<td>Second Signal Service</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>10</td>
<td>21</td>
<td>26</td>
<td>64</td>
</tr>
<tr>
<td>B. Current Strength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal Security Service</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>35</td>
<td>90</td>
<td>148</td>
<td>286</td>
</tr>
<tr>
<td>Second Signal Service</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>18</td>
<td>29</td>
<td>55</td>
</tr>
<tr>
<td>C. Understrength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal Security Service</td>
<td>1</td>
<td>4</td>
<td>34</td>
<td>38</td>
<td>19</td>
<td>-47</td>
<td>49</td>
</tr>
<tr>
<td>Second Signal Service</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>-3</td>
<td>9</td>
</tr>
<tr>
<td>D. Estimated Requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal Security Service</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>30</td>
<td>63</td>
<td>121</td>
</tr>
<tr>
<td>Second Signal Service</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>E. Estimated Strength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 September 1943</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signal Security Service</td>
<td>7</td>
<td>17</td>
<td>33</td>
<td>75</td>
<td>139</td>
<td>184</td>
<td>456</td>
</tr>
<tr>
<td>Second Signal Service</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>13</td>
<td>24</td>
<td>21</td>
<td>77</td>
</tr>
</tbody>
</table>

57. Colonel W. Preston Corderman to Chief, Personnel Branch, OSSigO, subject as given, 11 February 1943, SRIS 311.5-General (2-11-43).
Both the Signal Security Service and the Second Signal Service Battalion were stated in this report to be under strength owing to the lack of qualified personnel to fill the vacancies. In addition, 225 officers were reported to be currently in the Signal Corps Replacement Pool, later designated as the Advanced Radio Communications School.

On 17 April 1943 the allotment of officers for the Battalion was increased by one lieutenant colonel, one major, three captains, three first lieutenants, and five second lieutenants (all Signal Corps vacancies),* making the revised officer allotment as follows:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colonel</td>
<td>1</td>
</tr>
<tr>
<td>Lieutenant Colonel</td>
<td>3</td>
</tr>
<tr>
<td>Major</td>
<td>5</td>
</tr>
<tr>
<td>Captain</td>
<td>14</td>
</tr>
<tr>
<td>First Lieutenant</td>
<td>24</td>
</tr>
<tr>
<td>Second Lieutenant</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
</tr>
</tbody>
</table>

F. Morale Problems

The problem of morale in connection with the detachment at Arlington Hall Station was rendered particularly acute because many of the enlisted men had assignments exactly like those of commissioned officers and civilian employees (in some cases field officers and highly-paid

* Colonel William D. Hamlin, Executive Officer, OSSigO, to Commanding Officer, Second Signal Service Battalion, subject: Allotment of Officer Position to Second Signal Service Battalion, SPSMP 320.21 (Gen.).

59. One of the captains allotted was a chaplain, not a Signal Corp's officer.
civilians at that) and were doing brilliant work in these capacities. There was, in fact, no correlation between the rank a worker held and his accomplishments. Naturally, many enlisted men felt that they were being treated unfairly. Efforts were made to solve this problem but without complete success. One solution was, of course, to send outstanding men to Officer Candidate School, but the quota was small. In May 1943, for example, the quota for the Second Signal Service Battalion was only six men to a class, yet there was at that time a backlog of 44 applicants. For this reason, it was recommended that the quota for the Battalion in the next two classes be set at 25 men. But no matter how high the quota might be, there were reasons why this expedient could not be used in many cases. Some of the men did not possess the qualifications needed for Signal Corps junior officers in the field but were, on the other hand, possessed of competences which made them particularly useful to the Signal Security Agency. In many instances an enlisted man was performing services of so valuable a nature that he simply could not be spared for 90 days to take the OCS course. Yet the granting of direct commissions to enlisted men was difficult, if not impossible, and except on one occasion, shortly to be mentioned, no enlisted men at Arlington Hall Station were ever given direct commissions.


61. In the early days of the War a few men of the Second Signal Service Company had been directly commissioned.
It happened, however, that in the Language Branch there were a large number of enlisted men engaged in the translation of Japanese messages. Some of these men had been originally recruited, while studying Japanese, by officers not connected with this Agency, who, it was alleged, had promised them that if they would enlist and then pursue a course of study in the Japanese language, they would be given direct commissions upon the completion of the course. Such a promise had not been authorized by this Agency, but when the matter was brought to the attention of higher authority by the enlisted men themselves, approval was received by this Agency for the granting of a number of direct commissions to fulfill the promises made. A total of 58 direct commissions as Second Lieutenant were thus given to enlisted men of the Language Branch, 43 of them in January 1944 and 15 in the following May. As could well be imagined, the morale problem of these 58 lieutenants was solved, but that of others not so favorably situated was intensified. There were in other branches, particularly in the two cryptanalytic branches and the Traffic Analysis and Control Branch, enlisted men whose accomplishments were equal, if not superior, to those of the best men in the Language Branch, and their work was needed just as critically. But no further direct commissions could be obtained.

In June 1943 it became necessary to make certain changes in allotment of grades owing to a War Department policy that all students at an advanced special service school, such as was being operated at
Vint Hill Farms Station, were to be promoted to technician, fifth grade. It was requested that 62 144 technicians fourth grade and 592 technicians fifth grade, be added and 354 privates first class and 382 privates be deducted from the authorized allotment. This had the effect of permitting the promotion of 736 men in the sixth and seventh grades to be technicians, fourth and technicians, fifth grade. The resultant allotment would then be:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Master Sergeants</td>
<td>133</td>
</tr>
<tr>
<td>2 Technical Sergeants</td>
<td>238</td>
</tr>
<tr>
<td>3 Staff Sergeants</td>
<td>12</td>
</tr>
<tr>
<td>4 Technicians</td>
<td>334</td>
</tr>
<tr>
<td>5 Sergeants</td>
<td>26</td>
</tr>
<tr>
<td>6 Technicians</td>
<td>541</td>
</tr>
<tr>
<td>7 Corporals</td>
<td>53</td>
</tr>
<tr>
<td>8 Technicians</td>
<td>988</td>
</tr>
<tr>
<td>9 Privates First Class</td>
<td>232</td>
</tr>
<tr>
<td>10 Privates</td>
<td>232</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2789</strong></td>
</tr>
</tbody>
</table>

Note that the total number of enlisted positions allotted was in no way affected by this change. Actual Battalion strength at this time (30 June 1943) was 2640 enlisted men.

The problem of finding sufficient enlisted men of the proper qualifications for those positions was, however, still to be solved.

In June 1943 the schools at Vint Hill Farms Station were not operating to capacity owing to the difficulty of finding suitable material.

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62. From Colonel N. Preston Corderman to Military Personnel Branch, OSSigO, 12 June 1943, SHSIS 322 2d Sig Serv Bn May–June 1943, Case No. 1165.
Since six months were required to train personnel adequately, there was a need for a speeding up of the process, specifically by raising the priority which the Battalion enjoyed. The following was the status of available trainees on 1 July 1943:

<table>
<thead>
<tr>
<th>Station</th>
<th>Actual</th>
<th>Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vint Hill Farms</td>
<td>1</td>
<td>89</td>
</tr>
<tr>
<td>Two Rock Ranch</td>
<td>2</td>
<td>106</td>
</tr>
<tr>
<td>Fort Sam Houston</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>Asmara</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Fort Shafter</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td>Fairbanks</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>New Delhi</td>
<td>8</td>
<td>2165</td>
</tr>
</tbody>
</table>

In addition, 100 men each would be needed for new stations in the European Theater and the Southwest Pacific Area. At this time the Second Signal Service Battalion enjoyed a priority of "3B", which was a high priority but permitted assignment only of reception center personnel, whereas a "130" priority, which was proposed, would permit the Battalion to get replacement center personnel also. An arrangement had been made with the Military Personnel Division to take reception center personnel through a "163" priority, which was the lowest for personnel of this category. Two requisitions dated 13 May

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63. Memorandum for Lieutenant Colonel Slack from Lieutenant Colonel H. McD. Brown, no subject, 1 July 1943, SPS1E-300-6 (7-1-43).

64. Of these 150, 36 were under orders to depart for Asmara, the initial complement for which was estimated to be 50, but the remainder were yet to be supplied.

65. All of the 21 were still enroute to India.

66. Memorandum from the Adjutant, Second Signal Service Battalion to Commanding Officer, 2 July 1943, SPSIS 322 2d Sig Serv Bu July-August 1943.
1943 and 18 June 1943 had not been filled by The Adjutant General's Office on account of the low priority. Even a priority of 15 would permit The Adjutant General's Office to fill these requisitions. The Army Communications Service, of which the Battalion was then a part, had a priority of "13C". It was therefore recommended that a request be forwarded for "13C" priority. The request was forwarded to the Military Personnel Division, and forwarded by that division to the Mobilization Division, Army Service Forces.

G. War Records of Prewar Company Members

Of the prewar Company members a total of nine are known to have been promoted to the rank of commissioned officer or warrant officer in the field. These were as follows:

Master Sergeant Charles G. Wainer
Promoted to Warrant Officer, Junior Grade, 15 May 1942.
Promoted to Second Lieutenant, 19 May 1942.
Afterwards promoted at dates to First Lieutenant and Captain (14 Sep 43).

Master Sergeant Charles R. McKenzie
Promoted to Warrant Officer, Junior Grade, 15 May 1942.
Promoted to Chief Warrant Officer, 31 December 1944.

Master Sergeant Charles Grant
Promoted to First Lieutenant, 10 December 1942.
Promoted to Captain, 14 September 1943.
Promoted to Major, 16 May 1946.

67. H&I from Lieutenant Colonel James E. Slack to Military Personnel Division, 3 July 1943, ibid.

68. Director, Operations Division, OCSigO, to Mobilization Division, ASF, 13 July 1943, SPSO. 320.2 (2d Sig Serv Bn).
VII. The Second Signal Service Battalion

Sergeant Carl L. Gard
Promoted to Warrant Officer, Junior Grade, in July 1942.
Promoted to Second Lieutenant, May 1943.
Promoted to First Lieutenant, January 1945.

Sergeant John J. Phelan
Promoted to Second Lieutenant, July 1942.
Promoted to First Lieutenant, 1943.

Corporal Richard E. Muras
Promoted to Second Lieutenant, May 1943.
Promoted to First Lieutenant, January 1944.

Private First Class Paul A. Gill
Promoted at unknown date to First Lieutenant of guerrillas in the Philippines.

Private Daniel C. Gelb
Promoted to Second Lieutenant, 8 December 1941.
Now believed to be dead.

Private First Class Berkeley J. Kinkade
Promoted to Second Lieutenant, 8 December 1941.
Missing.

A total of 15 former enlisted men in the Second Signal Service Company were sent to Officer Candidate School and received commissions upon graduation. These were as follows:

**Class Graduated 1 October 1941**

Captain Charles O. Applegate
Major Robert P. Pape
Major Braxton E. Smil
Captain Walter E. Trimble
Captain Oscar Wilder, Jr.

**Class Graduated 10 January 1942**

Major John T. Guernsey
Robert R. Hubbard; subsequent history unknown.
Major Vincent H. Santoro
Major Lawrence D. Terry
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Class Graduated in March 1942

Captain Warren K. Hall
Captain Stanley A. Kretlow
Major George L. Sampson

Class Graduated 10 May 1942

Major Arthur J. Cadorette

Class Graduated 3 June 1942

First Lieutenant William J. Kocon
Captain James B. Winklyoff

H. The Philippine Detachment

The Philippine Detachment, stationed at Fort McKinley, Rizal, Philippine Islands, deserves special mention because, except for the Hawaiian Detachment, which witnessed the Pearl Harbor attack without participating in combat, it was the only unit of the Battalion which was actually under fire. In December 1941 the Philippine Detachment had on its roster 2 officers (one attached) and 16 enlisted men:

Major Joe R. Sherr, Signal Corps, Detachment Commander
and Assistant Signal Officer, Philippine Department.
1st Lt. Howard W. Brown, Signal Corps.
T Sgt Eustace R. Messer, Chief Operator.
3 Sgt Joseph Sarata, Intercept Operator.
5 Sgt Lawrence K. Hall, Intercept Operator.
Sgt Carl L. Card, Intercept Operator.
Sgt John J. Phelan, Intercept Operator.

69 Much of the material upon which this section is based was collected by T Sgt Michael Maslak. Some of Sergeant Maslak’s manuscript was published as the first article of what was to have been a series of articles on the Philippine Detachment, entitled “Signalmen’s Odyssey,” in the February 1946 (and final) issue of the monthly publication of the Battalion, B-5. The complete story is in the archives of the ASA Historical Unit.
As the Japanese advance on Luzon continued in the spring of 1942, the men who had been assigned to the Second Signal Service Company in the Philippines were scattered through several different units of the Command on Bataan and Corregidor. The two officers and 16 enlisted men listed above were carried on the rolls of the organization until the time when General MacArthur left the Philippines for Australia. On that trip the General was accompanied by Lieutenant Colonel Joe C. Sherr, who had been acting as Officer in Charge of the Manila Detachment. Arriving in Australia, Colonel Sherr assumed duties as Executive Officer to Major General Spencer B. Akin, Signal Officer for the Southwest Pacific Theater, who had formerly been Officer in Charge of the Signal Intelligence Service. In the capacity of Executive Officer to Major General Akin, Colonel Sherr acted as Chairman of the joint British and American committee which prepared the way for the organization in August 1942 of the CEB (Central Bureau in Brisbane). In September 1943 Colonel Sherr, while on a special mission to India and China, was killed in an airplane accident at Calcutta. He was posthumously awarded the Legion of
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Merit on 22 January 1944.

Between 27 and 31 March 1942, 11 men of the Battalion were evacuated by airplane to Del Monte, Mindanao. Of these, seven are known to be living (7 February 1946). Private First Class Paul A. Gill (ASN 6570724) left with the group from Bataan on 28 March 1942. After the surrender in Mindanao he allied himself with the guerrilla forces under the command of Colonel Fartig and was eventually appointed Second Lieutenant of guerrilla forces. In March 1944 he was evacuated to Australia by submarine, and he returned to the United States in July of that year. He is now on duty with the Detachment at Two Rock Ranch Station.

Private First Class Michael Maslak (ASN 6974517) was, at the time of the Japanese landing on Luzon, attending the West Point Preparatory School at Camp John Hay, Baguio. Until the evacuation of Baguio on 24 December 1941, he served as a radio operator in the Camp John Hay Garrison. Evacuated to Bataan, he succeeded on 1 January 1942 in finding the Second Signal Service Detachment on Corregidor. He served for a short time there and at Del Monte as a communications operator. Just before the surrender on Mindanao on 11 May 1942, Private Maslak, together with Private First Class Stanley W. Kapp (ASN 6974025) and Corporal Irving A. Stein (ASN 6982605), took to the hills. A month later, with two Americans and three Filipinos, they set sail for Australia in a native sailing canoe. On 25 September 1942 a Japanese naval craft picked them up.
on a small island to the west of New Guinea and they were taken to
an unreported Japanese prison camp at Ambon, Ambina. Private Knapp
died in January 1944 and Corporal Stein in July of the same year.
The former contracted tuberculosis from exposure; the latter died
from a combination of diseases—malaria, beriberi, dysentery, etc.,
and from overwork, lack of medicine, and a starvation diet. Private
Maslak, however, survived and was liberated on 12 September 1945.
He returned to the United States shortly thereafter.

Another of the group evacuated from Bataan to Mindanao was
Private First Class J. E. Bradbury (ASN 19000060). After arrival
at Mindanao, he served with the rest of the group during the time
resistance to the enemy continued. Suffering from very bad feet,
he could walk only with assistance, and when the island was officially
surrendered, he elected to remain behind, choosing to surrender rather
than burden the rest of the party with his care. Enroute home via
the Philippines, Private Maslak noted Bradbury's name on a list of
repatriated prisoners of war. Other prisoners of war, however, told
Private Maslak that Bradbury had died in prison camp. He is last
known to have been alive at the Cabanatuan Camp in the early days
of his imprisonment.

With Private Gill, Private First Class James E. Rahn (ASN
6582456) left Valencia, Mindanao, on 10 May, several hours before
Private Kapp, Stein, and Maslak. After the surrender the two
eventually joined the guerrilla forces, of which Private Rehn was on his way to becoming a prominent member, when, after an altercation of some minor nature with another American of the same group, he was shot in the back by the other American.

Five members of the group evacuated to Mindanao succeeded in getting air transport to Australia on 14 April 1942. This group comprised First Lieutenant (afterwards Lieutenant Colonel) Howard W. Brown, Technical Sergeant Eustace M. Messer (ASN 6783129), Sergeant Carl L. Card (ASN 6910304), Sergeant John J. Phelan (ASN 6905576), and Corporal Richard E. Murss (ASN 6938185). All are alive today serving in various capacities.

Sergeant Messer, upon arriving in Australia, transferred to Headquarters, U. S. Army Services of Supply. In July 1942 he was promoted to Master Sergeant and was at the date of the last available information (July 1945) serving with Headquarters, Services of Supply, in Manila.

Sergeant Card, upon arrival in Australia, became attached to the Royal Australian Air Force and performed intercept duties or duties of a related nature until November 1942. He was promoted to Warrant Officer in July 1942, to Second Lieutenant in May 1943, and to First Lieutenant in January 1945. In July 1945 he was on duty with the Advance Echelon, Central Bureau, San Miguel, Tarlac, Philippine Islands.
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Sergeant Phelan's activities parallel those of Sergeant Card. In July 1942 he was appointed from enlisted grade to the rank of Second Lieutenant and in 1943 was promoted to First Lieutenant. Corporal Nurse was promoted to Master Sergeant in July 1942, to Second Lieutenant in May 1943 and to First Lieutenant in January 1944.

Lieutenant Brown was at first attached to the Royal Australian Air Force, with which he served until November 1942. After that he acted as Radio Intelligence Officer for GHQ and SIS and rose to the rank of Lieutenant Colonel. In May 1945 he returned from Manila to the United States. He reverted to inactive duty in September 1945.

Of the group comprising the original Philippine Detachment, there remain six men not accounted for in the preceding paragraphs. These were Privates First Class David H. Summers (ASN 12010101), Daniel C. Gelb (ASN 6910433), and Berkeley J. Kinkade (ASN 6911171); Staff Sergeants Laurence W. Hall (ASN 6281313) and Joseph Sarata (ASN 6134786); and Sergeant Wayne R. Rightower (ASN 6281393). On 8 December 1941 Privates Gelb and Kinkade were commissioned Second Lieutenants in the Army of the United States. Both served with distinction through the period of resistance up to the fall of Corregidor. Lieutenant Gelb is known to have been captured on

70. In the files of the Historical Unit, ASA is a monograph by Lieutenant Colonel Brown recounting his experiences.
Corregidor, for he was listed as a prisoner in the first list submitted to the International Red Cross in Geneva. After the liberation of the Manila area, however, many persons were questioned as to his whereabouts, and none could recall having seen him in any of the prison camps. It is presumed that he was either killed outright by the Japanese or tortured by them in an effort to seek information relative to the signal intelligence activities in which he was engaged. He was, in the opinion of both Colonel Brown and Sergeant Maslak, the best intercept operator ever to have served with the Second Signal Service Company in the Philippines.

While Sergeant Maslak was checking over the officer personnel files at the Philippine Replacement Depot after his liberation, he found Lieutenant Kinkade's name and was told that he had just gone back to the United States. Nothing had been known of Kinkade's fate until Sergeant Maslak's information became available at Battalion Headquarters.

Sergeant Nightow was transferred to a signal supply unit on Bataan as a Master Sergeant, fought in the defense of Bataan, and, when the peninsula fell, swam to Corregidor. Listed as a prisoner when the island fell, he was seen by Sergeant Maslak in October 1945 in the Philippines.

Private First Class Summons, and Sergeants Hall and Sarata, fought with the forces defending Corregidor. All were captured and listed as prisoners on the first Geneva list, but only Sergeant
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Hall was found in a prison camp. He was among those liberated from Cabanatuan prison by the arrival of the American forces. Sergeant Sarata, it was reported to Sergeant Maalak, survived imprisonment until the War ended but was fatally injured when struck in the head by a bale of foodstuffs dropped from an American plane. Nothing is known of the whereabouts of Private Somes.

Thus, out of 16 enlisted men and two officers, 10 are known to have survived, 6 are known to be dead, and the fate of the remaining 2 is uncertain.

I. The WAC Detachments

Although the Women’s Army Auxiliary Corps (WAAC) was founded early in 1942, no women were obtained by the Signal Security Agency until much later. A request was made to the Personnel Division, Office of the Chief Signal Officer, on 31 March 1943 for an allotment of 11 WAAC officers and 800 auxiliaries. The allotment was approved on 14 April 1943 and plans were made for receiving the women. Housing for the enlisted women was requested on 15 June 1943. Ultimately, many of the barracks for men were converted into WAAC barracks and new barracks for men were erected at another site on the Post. It was intended to distribute the 800 auxiliaries as follows:

- Arlington Hall Station 550
- Vint Hill Farms Station 150
- Two Rock Ranch Station 100
- Total 800

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But the Waacs did not arrive at once in large numbers. Private Mary J. Akin (ASN A-906435, SSN 400), one of the first auxiliaries to be transferred (11 July 1943) to Arlington Hall, was assigned as a tabulating machine operator. Private Akin did not live on the Post, however, but commuted from Fort Myer. In August six Waacs arrived for assignment to duty at Arlington Hall Station. On 1 September 1943 the Women's Army Auxiliary Corps (WAAC) became the Women's Army Corps (WAC), but there were still no women quartered on the Post. Two enlisted Waacs joined the unimpressive contingent at Arlington Hall Station on 2 October 1943.

A week later, on 9 October 1943, the first enlisted women reached Vint Hill Farms Station (which had had a WAC officer since 15 September) and were formed into the first WAC company. Later in the month, on 22 October 1943, the first Waacs arrived at Two Rock Ranch Station. Thereafter, the strength of the WAC detachments gradually increased until, by the end of December 1943, both Vint Hill Farms Station and Two Rock Ranch Station had reached their allotments, and the WAC detachment at Arlington Hall Station was within 50 per cent of the originally allotted strength of 350 women. Nevertheless, on 1 January 1944, the Arlington Hall allotment was increased by 700 to 1250 enlisted women.

In the early months of 1944 the strength of the WAC detachments continued to grow, but difficulty was experienced in getting enough women to fill the Arlington Hall allotment of 1250. It was soon realized that
special efforts would be needed if the goal were to be reached.

Accordingly, on 21 March 1944 the Adjutant General was requested to authorize recruitment of 600 enlisted women for Arlington Hall Station. Approval was received the next day, the Commanding General, Army Service Forces directing that the recruiting program be carried on in the First, Second, Fifth, Sixth, Seventh, and Ninth Service Commands. At first this recruiting was conducted by Service Command personnel, but later the recruiting officers who had been sent out by the Personnel Branch, Signal Security Agency to recruit civilian employees were pressed into service to recruit Wacs. During the month of May 1944 a total of 23 enlisted women were recruited through this program in the six Service Commands mentioned; by the end of the Fiscal Year 1944, the number recruited had reached 189. This brought the total strength of the enlisted women in the WAC detachments on 30 June 1944 to 823, distributed as follows: Arlington Hall Station 565, Vint Hill Farms Station 155, Two Rock Ranch Station 103.

The WAC Detachment at Arlington Hall Station was, at the beginning of the Fiscal Year 1945, organized into two provisional companies (A Company and B Company) and had a strength of 3 officers, 1 first sergeant, 6 staff sergeants, 15 sergeants, 89 corporals, 244 privates first class, and 210 privates. The division into the two companies was based on assignment of the enlisted women to branches of the

71. See chapter VI, above.
Signal Security Agency. The strength showed net gains each month from July to November 1944, with a peak strength on 24 November 1944 of 1116. This means a growth of approximately 100 per cent in five months. As a result, on 20 January 1945, four more provision companies were activated. From 1 December 1944 through 30 June 1945 normal attrition accounted for a 10.3 per cent loss of personnel, bringing the strength of the Detachment at the end of the Fiscal Year 1945 to 1001.

Originally the enlisted women were housed in HE mobilization-
type barracks of one-storey design, but late in the Fiscal Year 1944 they moved into two-storey cinder-block barracks, designed according to WAC specifications and constructed to house 58 enlisted women each in place of the 38 accommodated in the older barracks. As the new barracks were completed, the older barracks were closed, but later increases in the WAC strength necessitated the reopening of the older barracks, and after January 1945 26 barracks (13 old and 13 new) were occupied by WAC enlisted personnel. One building of the newer type was divided into rooms and occupied by noncommissioned officers of the first three grades. All detachment officers were quartered off the Post. The WAC duty officer had quarters on the third floor of Headquarters Building until Temporary Building 112 (the original dispensary) was vacated and remodeled in August 1944 for use as WAC Duty Quarters.
A WAC training program was organized around the Mobilization Training Program set up by the War Department. Recreational facilities were provided. One of the chief morale problems was caused by the necessity of keeping in a single barracks enlisted women who had worked assignments on different shifts.

On 25 July 1944 the enlisted women of the Arlington Hall detachment paraded in a special presentation ceremony at Fort Myer, Virginia before the Chief Signal Officer, Major General Harry C. Ingles. This formation was in honor of Private First Class Mary Jane Ford, of Vint Hill Farms Station, who was awarded the Soldier’s Medal for heroism while stationed at Camp McCoy, Wisconsin. She had risked her own life in an attempt to rescue a soldier from drowning.

J. The Battalion Headquarters during the War

It will have been apparent already that the Second Signal Service Battalion was in no sense an ordinary battalion as the word is generally understood in the Army but a special organization created for a specific purpose, which had no precedent, and it is believed, no parallel in the history of military operations.

As has been stated, the Commanding Officer of the Battalion, after November 1942, was constantly the same officer who also served, simultaneously, as Chief of the Signal Security Agency and Commanding Officer, Arlington Hall Station. Headquarters of the Second Signal Service Battalion remained at Arlington Hall Station throughout the War though it directed operations at many other places.
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Headquarters of the Battalion was merely an Adjutant's Office; functions of General and Special staffs were performed for the personnel of the Battalion by appropriate officers in the several detachments or by officers of the station complements of the various installations directly under the control of the Chief, Signal Security Agency, while all operations in which enlisted personnel of the Battalion were engaged were supervised, controlled, and in many cases conducted by the various Operating Branches of the Agency.

The Battalion was, therefore, not a self-sustaining organization but in effect a Military Personnel Section for enlisted men and women of the Signal Security Agency and for such officers as were assigned duties of company administration in the many detachments of the Battalion. Battalion Headquarters exercised no control whatever over the activities of other officers assigned to the Signal Security Agency.

As the assignment, transfer, and promotion of personnel of the Battalion rested with Battalion Headquarters, it was necessary that a close check be constantly maintained on the personnel of the various detachments. This was accomplished through the morning reports and monthly reports which reflected most of the information that was required by the Battalion in order to control the detachments. The monthly reports were divided into sections covering topics of particular interest to the several branches of the Agency.
Comments from the members of the Battalion in the various detachments indicated a need for a medium by which they could be brought into closer contact with Headquarters and with each other. For this reason, on 15 December 1944, the first Battalion monthly magazine was issued under the title of "R-5," a name chosen from the procedure signal meaning "reception perfect." The magazine, which was given the classification of CONFIDENTIAL so that technical information of a classified nature could be included, was received with enthusiasm.

Personal interest stories and other matters of an unofficial or semi-official nature were solicited from members of the detachments so that "R-5" would not only be an official publication of Battalion Headquarters but would also reflect opinions and comments of the scattered members of the detachments.

On 15 December 1944 operational command and control of the Battalion passed from the Chief Signal Officer to the Assistant Chief of Staff, G-2, when the same transfer was made in the case of the Signal Security Agency and its dependent installations. So far as the Battalion was concerned, this meant that no military personnel could be transferred from the Battalion if the Assistant Chief of Staff, G-2 believed that such transfer might adversely affect the performance of the mission of the Signal Security Agency. In addition, the Assistant Chief of Staff, G-2 was authorized to shift personnel between the Military Intelligence Service and the Signal Security Agency if necessary to facilitate the production of intelligence.
It was found that considerable confusion existed in the minds of the commanders of detachments of the Battalion because of the tendency of various branches of the Signal Security Agency to correspond directly with the detachment commanders to obtain information needed by the respective branches. Among the branches which required such correspondence were the Supply Branch, which dealt with the detachment on supply matters, the Communications Branch, which dealt with matters pertaining to facilities for interception, and the Traffic Analysis and Control Branch, which was concerned with establishing priorities and missions for interception. It happened on occasion that detachment commanders would receive directives or requests for information which were contradictory. To rectify this situation, a Coordination Section was officially instituted in Battalion Headquarters by SSA Operating Procedure No. 23, 19 March 1945, and thenceforth all correspondence exclusively concerned with intelligence activities passed through the Battalion Adjutant's office. Thus, the detachments had only one SSA office with which to deal. In addition, the Coordination Section was responsible for the recommendation and coordination of the assignment, rotation, transfer, and promotion of personnel of the detachments; augmentation, movement, reduction or elimination of detachments; compiling and publishing, where necessary, of allocations of personnel and facilities; functions and tables of equipment; and the distribution of communications; as well as the coordination and preparing of answers thereto.
Battalion Headquarters also included two other sections (Personnel, and Orders and Reports). The Personnel Section was responsible: (1) for the performance of all functions of a Unit Personnel Office for enlisted and officer personnel of the Battalion at Arlington Hall Station, as required in appropriate regulations or as directed by higher authority; (2) for maintenance of information 201 files on Battalion officers of the detachments; (3) for providing data for the Orders and Reports Section for the maintenance of information 201 files on all Battalion personnel in the detachments; (4) for maintenance of a machine records card system which provides immediate personnel data on all Battalion personnel; (5) for providing daily strength reports on the Battalion as directed; (6) for maintenance of complete files of Army Regulations, War Department Circulars, War Department Memoranda, ASP and OCSigO Memoranda, and other pertinent publications as directed; (7) for editing, publishing and distribution of the Daily Bulletin for the enlisted personnel at Arlington Hall Station.

The Orders and Reports Section was responsible: (1) for the publishing and distribution of General Orders, Special Orders, Memoranda, and similar directives for Battalion Headquarters; (2) for consolidation and preparation of all forms of correspondence for Battalion Headquarters excepting that prepared in the Personnel Section; (3) for maintenance of a mail desk to receive, record, distribute and expedite all forms of correspondence received in Battalion Headquarters; (4) for maintenance of the general files of...
Battalion Headquarters, and information 201 files on all enlisted personnel reports of the Battalion detachments; (5) for preparation of all reports of Battalion Headquarters excepting such routine personnel reports as were prepared by the Personnel Section; (6) for compiling, editing, and publishing the Battalion History and a photographic appendix; (7) for editing, publishing, and distributing the monthly Battalion magazine, "R-5"; (8) and for maintenance and operation of a pool of stenographic and clerical personnel.

With the establishment of the Coordination Section at this Headquarters, instructions for preparation of the Quarterly and Monthly Reports were issued in the form of Memorandum No. 5, 22 March 1945, and distributed to all concerned. The Quarterly Reports were to be submitted with the January, April, July, and October Monthly Reports and were to consist of three parts: Part I, major items of equipment; Part II, listing of teletype communications facilities; and Part III, operations personnel. The Monthly Report was divided into two parts: Part I, Operations, and Part II, General Administration. All reports were given the classification of SECRET.

On 17 January 1945 Captain Arthur J. Gadorette was relieved as Battalion Adjutant by Captain William F. Drees, who had previously been in Communications Branch. Within a few days, a reorganization and expansion of the Adjutant's Office was begun. The following was the arrangement:

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On 1 February 1945 a new designation for use on morning reports throughout the Signal Corps and Army Service Forces was given the Battalion. Henceforth, the Battalion was to be known as the 9420th Technical Service Unit, Signal Corps. To differentiate between the various detachments, each was given a letter designation: the enlisted men of the Battalion at Arlington Hall Station were designated 9420th Technical Service Unit, Detachment A; the enlisted women at Arlington Hall Station became Detachment B; and so on.

Some confusion existed as to the authority of Detachment Commanders to reduce enlisted personnel for misconduct or inefficiency. On 11 August 1944, all Detachment Commanders were delegated authority for the reduction of enlisted personnel under the provisions of Paragraph 15, AR 615-5, but a report of action and a statement of the reason for the reduction was required by Battalion Headquarters.

In order to achieve a uniform and equitable promotion status for enlisted personnel of this organization, a policy was established in February 1945 which required the Battalion's monthly recommendations to be submitted on a standardized form. The policy further stipulated the following minimum time in grades:
Recommendations submitted monthly were to be received at Battalion Headquarters by the 15th of each month and promotions were to be made effective on the first of the following month.

On 13 March 1945, as a result of continual receipt of directives from higher headquarters regarding the proper utilization of manpower, Memorandum No. 3 was published which required of officers at all levels that the minimum number of qualified personnel be used consistent with the proper performance of the mission of the agency, and that great care be taken to insure that personnel should be assigned in such a manner as to use their existing skills and training to the fullest extent. Potential skills were to be developed where possible to meet requirements when completely trained personnel were not available. Wherever possible, physically qualified personnel were to be reported eligible for overseas duty and were to be replaced by enlisted women and by enlisted men returned from overseas.

Since final action on all applications for officer candidate schools was taken by Battalion Headquarters, a memorandum was issued on 14 March 1945 to all detachments defining the procedures to be followed in processing applications. These were to be forwarded by Detachment Commanders to the nearest post which convened an Officer
Candidate School Examining Board, as provided for in Paragraph 3 b (1) AR 625-5. Upon processing by the local board, the completed applications, together with requests for waiver, where required, were to be forwarded to Battalion Headquarters for review by the ASA Examining Board.

A Battalion-wide plan for the celebration of the Battalion's third anniversary on 20 April 1945 was postponed on account of the death of President Roosevelt on 12 April 1945, but on 19 May 1945 a world-wide celebration was held commemorating the third anniversary of the conversion of the Company to the Second Signal Service Battalion. Each detachment celebrated the day as it saw fit. Reports rendered later to Headquarters indicated that the program of games, dances, and parties were so planned as to avoid interruption of operations.

Upon the announcement of V-E Day (8 May 1945) plans were immediately laid for accelerating redeployment activities. In General Order No. 2, Office of the Chief Signal Officer, 1 May 1945, the Signal Service Battalion was among a group of several organizations to be awarded the Meritorious Service Unit Plaque for superior performance of duty and the achievement and maintenance of a high standard of discipline. Each enlisted person and officer assigned to the Battalion was authorized to wear, for such time as he remained a member of the organization, the sleeve insignia designated for the award.

72. Under the provisions of War Department Circular No. 54, 22 February 1946, par. 6, members of the Battalion for a period of 60 days or more may now retain the insignia after they leave the Battalion.
CHAPTER VIII. OFFICER PERSONNEL

In the two preceding chapters the procurement of civilian and enlisted personnel for the Signal Security Agency was discussed, but, except for incidental references here and there, nothing has as yet been said concerning officer procurement. The officers on duty with the Signal Security Agency during World War II presented a cross section of the entire Army, drawn from every known procurement source, they were of the following groups:

1. Regular Army officers.
2. Regular Army enlisted personnel given AIS commissions.
4. Reserve officers employed by the SIS as civilians.
5. Reserve officers who had some training in Signal Intelligence prior to coming on active duty.
6. Other reserve officers.
7. Civilian employees of the SIS given direct commissions.
8. Other civilians given direct commissions.
9. Graduates of Officer Candidate School.
10. WAAC and WAC officers.

These categories will be discussed in the following sections.

A. Regular Army Officers.

A total of 14 Regular Army officers were on duty with the Signal Security Agency (or the Second Signal Service Battalion) between the attack on Pearl Harbor and the capitulation of Japan. These were as follows:

Colonel¹ Rex W. Minkler, who was Chief, Signal Intelligence Service from 7 June 1941 till 1 May 1942, when he was succeeded

¹ In each case the grade indicated is the highest held during the officer's connection with the Signal Security Agency.
by Colonel Bullock. He then became Chief of Operations, STS on 22 April 1942 and remained in this position until 16 November 1942, when he became Commanding Officer, Vint Hill Farms Station, from which command he was relieved by Colonel Charles H. Judson on 17 June 1943.

Colonel Frank W. Bullock, who became Officer in Charge, Signal Intelligence Service on 2 May 1942, Commanding Officer, Arlington Hall Station on 31 July 1942, and Commanding Officer, Second Signal Service Battalion on 19 November 1942, from all of which posts he was relieved on 31 January 1943 by Colonel Gorderman.

Brigadier General W. Preston Gorderman, who became Chief, Signal Security Branch and Signal Security Agency, and Commanding Officer, Second Signal Service Battalion and Arlington Hall Station on 1 February 1943, from 18 June 1945 to 31 March 1946, when he was relieved from his duties by Colonel Hayes, he held the temporary rank of Brigadier General, USA.

Colonel Harold G. Hayes, who was Executive Officer, Signal Intelligence Service from 6 January 1940 until relieved for overseas assignment in May 1942. He returned to the Signal Security Agency on 1 April 1944 and became Chief,successively, of the Cryptanalytic Branch, and of the Intelligence Division, relieving Colonel Cook. On 17 March 1945 he relieved Colonel Collins as Assistant Commandant. On 23 November 1945 he became Assistant Chief, Operations. He became Chief, Army Security Agency on 1 April 1946, relieving General Gorderman.

Colonel Harold Doud, who, after taking a course in the Signal Intelligence School, was assigned on 8 August 1941 as Chief, Cryptanalytic (B) Branch, from which he was relieved by Colonel Cook on 12 July 1943.

Colonel Earle F. Cook, who was, from 1 August 1941 till 12 July 1943, Chief, Cryptographic (C) Branch. He was relieved by Colonel Doud, who in turn was relieved by Colonel Hayes on 1 April 1944, and for a time was assigned to the Administrative Branch. He became Chief, Command Officer on 21 August 1944. On 1 May 1945 he was assigned to duties in London with MIS. He became Director, Army Security Agency, Europe on 30 November 1945.

Colonel Robert E. Schukraft, who served as Officer in Charge of Section B-6 and later of Communications Branch, of which latter post he was relieved on 11 November 1942 and sent to Vint Hill Farms Station as Commanding Officer, Monitoring Station No. 1.
Colonel Samuel P. Collins, who, after a period of duty with the American Intelligence Service, Miami Beach, Florida, became on 15 April 1943 Assistant Commandant, Signal Security Agency, a post which he held until 8 March 1945, when he was relieved. Since 23 November 1945 he has been Director, Army Security Agency, Pacific.

Colonel Eric H. F. Svensson, who, as a Cavalry Officer, had been a language student in Japan and was assigned to the Signal Intelligence Service on 26 July 1941. He served until October 1942 in the Cryptanalytic Branch, part of the time as its Executive Officer.

Colonel Alva Brastad, Chaplain, who for a short time in 1943 was Chaplain of Arlington Hall Station.

Lieutenant Colonel Harold McD. Brown, who was assigned to the Signal Intelligence Service on 14 October 1941 and on 16 November 1942 became Chief, Communications (E) Branch. He served as Chief, Operating Services Division, from 21 August 1944 until relieved on 23 October 1944.

Lieutenant Colonel Lawrence C. Sheets, who was Chief of the Protective Security (A) Branch from its founding (20 November 1942). He continued to serve in that capacity after its transfer to Arlington Hall Station until 19 November 1944, when he was relieved.

Lieutenant Colonel Harry J. Lewis, who, served as Commanding Officer, Vint Hill Farms Station from 29 August 1942 to 14 November 1942 and as Commanding Officer of Troops from 16 November 1942 to 17 September 1943 and as Director of Training thereafter until 27 April 1944, when he was relieved.

Major C. W. Breitenbacher, who was Chief of the Supply Branch from 15 March to 14 October 1945.

Mention should be made of the fact that five of the officers named had been students, and in some instances instructors also, in the Signal Intelligence School. They were thus acquainted with all phases of signal intelligence and well prepared to serve as administrators on a high level. The other officers, who were assigned to the Agency without this specialized training, were faced with the
difficulty of mastering the subject after their assignment. There were, in addition to the officers mentioned above, a few others who had been graduated from the Signal Intelligence School (Colonels George A. Bicher, J. C. Sherr, Harrod G. Miller, and Charles Bundy Brown) but with the exception of Colonel Miller, they were engaged in similar activities overseas.

Two other Regular Army officers were assigned to the Agency, though not in status as such. Lieutenant Colonel James Henley Frier, Jr. was a graduate of the Military Academy (Class of 1917) and had served in World War I. In 1921, however, he resigned from the Army and pursued a business career. In World War II he served as an ANC officer. Captain Mark Rhoads, who was also a graduate of the Military Academy (Class of 1918) served successively in the Cavalry and the Signal Corps. He was graduated from the Signal Intelligence School as its first student and had reached the rank of Captain when, in 1935, he contracted tuberculosis in the Philippines and was forced to retire by reason of physical disability. Later, after the beginning of the War, having recovered completely, he applied repeatedly for reinstatement to active duty in the Army. But, though his applications were urgently recommended by the Signal Intelligence Service, the Surgeon General's Office refused to reinstate him. In the end he became a civilian employee of the Agency and has since served as Assistant to Mr. Friedman, Director of Communications Research. His experience raises the question of
whether the work of the Agency would not have been greatly furthered if it had been possible to operate with different gradations of service based on the specific physical requirements for the work. Signal intelligence is an activity which, even in overseas operations, usually does not demand bodily vigor so much as highly-specialized skills and experience. Captain Rhead had been thoroughly trained in signal intelligence, he had recovered to the point where he was, while in retirement, operating a business, and, as a civilian, he did work not differing in type from that performed by most of the Agency's officers, yet he could not serve the Agency as an Army officer.

B. Regular Army Enlisted Men

As we have seen in chapter VII, a few of the enlisted men in the old Second Signal Service Company were afterwards granted direct commissions and a somewhat larger number were sent to Officer Candidate School, from which they obtained their commissions upon graduation. For the most part, these officers served as administrative or operations officers with the Second Signal Service Battalion, but in a number of instances they worked in other operational activities of the Agency.

C. National Guard Officers

The general nature of the military training given to units of the National Guard in peacetime and the fact that signal intelligence
has never been one of the specialized fields in which this instruction has been given made it unlikely that many National Guard officers would be qualified for service with the Signal Intelligence Service. Nevertheless, at least one officer was obtained from this source. He was transferred from the National Guard to the Signal Intelligence Service because of his knowledge of foreign languages.

D. Reserve Officers Employed as Civilians

The Signal Intelligence Service in peacetime had maintained a policy of granting Reserve commissions to all its male employees who could qualify physically in the Signal Reserve Corps. As a matter of fact, Mr. John B. Surt, whose health was poor, was the only such employee who was never able to qualify. Mr. William F. Friedman, the Principal Cryptanalyst of the Signal Intelligence Service, had held such a commission and had reached the rank of Lieutenant Colonel when in 1940 he was called to active duty. Shortly thereafter, however, he suffered a period of ill health as the result of which he was declared by the Surgeon General to be permanently incapacitated for further duty by reason of physical disability. He thus reverted, upon recovery, to his former status of civilian employee of the Signal Intelligence Service and thereafter continued to serve in the capacity of Director of Communications Research.

Other officers who similarly held Reserve commissions were:
VIII. Officer Personnel

Colonel^ Abraham Sinkov, Assistant Director, and Commanding Officer, SIS,^ GHQ, Central Bureau, Brisbane.
Colonel Solomon Kullback, Chief, Military Cryptanalytic Branch.
Colonel Frank B. Rowlett, Chief, General Cryptanalytic Branch.
Lieutenant Colonel Marrick F. Bence, Chief, Romance Language Section, General Cryptanalytic Branch.
Lieutenant Colonel Lawrence Clark, Executive Officer, and Commanding Officer, SIS,^ GHQ, Central Bureau, Brisbane.
Lieutenant Colonel Leo Rosen, Chief, Equipment Branch.
Major James Hark, SIS Officer, GHQ, Tokyo.
Captain Vernon E. Coley, CIC, Special Projects Unit, Communications Security Branch.

E. Other Reserve Officers

A limited number of Signal Reserve officers had been trained in signal intelligence prior to their being called to active duty. Part of the peacetime training program of the Signal Intelligence Service had consisted of short periods of active duty in which a few officers of the Signal Reserve and the Military Intelligence Reserve had been given such instruction as time and limited funds permitted. Of the officers in this group, only four later served with the Signal Security Agency:

Lieutenant Colonel A. J. McGrail, Chief, Laboratory Branch.
Lieutenant Colonel J. E. Mathews, Adjutant, Signal Intelligence Service.
Major Ulrich S. Lyons, Officer in Charge of Cryptanalytic units.
Major Edward J. Vogel, CIC, Special Examination Unit.

2. The rank and title in each case are those held at the end of the war.

3. Strictly speaking, this officer while in Australia was not part of the Signal Intelligence Service or of the Signal Security Agency, but prior to his departure for Australia in May 1942, he was in charge of the Italian Diplomatic Cryptanalytic Section.

4. Colonel Bence held the position indicated both before and after his tour of duty in the North African and European Theaters.

5. See note 3.
A somewhat larger group of officers had been trained in signal intelligence as part of their ROTC training. But, in addition to these two groups, there were many other Reserve officers who were assigned to the Signal Intelligence Service when the War began because they possessed specialized skills in the fields in which the Signal Intelligence Service badly needed personnel. Usually these officers were skilled in languages, mathematics, or engineering.

F. Officers Directly Commissioned

After the War began, the Signal Security Agency was able to obtain direct commissions for some of its male civilian employees, but the number of such commissions was strictly limited by Army-wide directives which forbade the granting of direct commissions to persons below a certain age (at first it was 30, then 35 years of age), or to persons about to be inducted by Selective Service, and, of course, the universal requirement of a satisfactory report on physical condition tended to eliminate some candidates. Not all of the civilians who were qualified physically and mentally for commissions got them, however, and in many cases those who did get them received them only after long delays, making them in some cases junior in military rank to others who were inferior in skill and experience in signal intelligence. Many highly competent civilian employees were, of course, subject to induction by Selective Service. In some instances induction was prevented by requests directed

6. See volume Twelve.
through channels to the Director of Selective Service to stop such induction on the grounds that these persons were doing essential work, as indeed they were. The number of such requests was limited by War Department policies designed especially to prevent abuses of the privilege. In many other cases the loss of valuable employees through induction and subsequent assignment to another organization was avoided only by the voluntary enlistment of the inductees prior to his notification to report for induction. Such enlistment with the Signal Security Agency, in some cases without any period of basic training, saved these skilled men for the activities of the Agency. Nevertheless, though they were frequently engaged in precisely the same kind of work as was assigned to commissioned officers, they often remained as enlisted men throughout the War since their services were too critically needed to permit them to enter Officer Candidate School. It seems certain that the Agency would have been able to operate much more efficiently, since morale would have been better, had it been able to grant direct commissions to all its civilian employees who were physically qualified.

A still larger number of officers were given direct commissions without previous experience in signal intelligence work. In every case they were qualified for a commission by reason of age, physical condition, draft status, etc., and they had all had sufficient experience and skill in some civilian occupation to make it likely that, with some additional on-the-job training in signal intelligence work, they could measure up to the requirements for officers of the Agency. For the most part these
officers were commissioned in the grade of lieutenant, though a few (mostly veterans of World War I, and commissioned veterans at that) began as captains. After the early months of 1943 War Department directives stopped the granting of such commissions entirely.

6. **Graduates of Officer Candidate School**

Allusion has already been made to the enlisted men of the old Second Signal Service Company who in 1941 and 1942 were sent to Officer Candidate School. The policy was continued thereafter, and many enlisted men of the Signal Security Agency were graduated by Officer Candidate School and returned to the Agency for their first assignment, frequently to the very same job which they had left to go to OSS. The record made by these men in Officer Candidate School was extremely high, amounting approximately to 100 per cent. It should be borne in mind, however, that the quota for each class was extremely low when considered in the light of a percentage of the troops on duty at Arlington Hall Station and other subordinate stations; when compared with the number of men who were obviously qualified for positions of leadership, the disparity was still greater. Moreover, many of the enlisted personnel

7. See section G, chapter VII, p 226.

8. This was not because officers were assigned to positions properly filled by enlisted men but to the contrary fact that enlisted men had satisfactorily filled positions normally held by officers. Many of the citations for decorations which were awarded after the War contained a statement such as the following: "Sergeant performed duties normally assigned to a commissioned officer."
could not, as has been said, be spared from their current operational duties, and many others had lacked the necessary basic training. In addition, it cannot be said that the kind of training given at Officer Candidate School was of immediate practical advantage to the graduates in their work with the Agency. Here again, it may definitely be stated that, had the Agency been permitted to give direct commissions to such of its enlisted personnel as were mentally and physically qualified, much time and effort that was expended by the men in going through Officer Candidate School would have been saved for operations.

H. WAAC and WAC Officers

The use of enlisted women in most, if not all, of the activities of the Signal Security Agency, presupposed that a sufficient number of WAC officers would be assigned to serve as administrative officers in the various detachments. In addition to these company officers, a large number of other women were assigned to replace male officers. With one exception, however, these WAC officers had had no experience or training in signal intelligence before their assignment to the Signal Security Agency, and they were not carefully selected out of the total number of available graduates of WAC officer candidate schools. Instead, they had been selected for Officer Candidate School by their respective commanding officers on the basis of general, rather than specific, qualifications. They were, therefore, at a great disadvantage in competing with the more highly selected male officers; for this reason
their record, though less brilliant than that of the men, must be adjudged very creditable.

No women employees of the Agency were ever given direct commissions. The only source of WAC officers available, therefore, was the normal procurement through the WAC Officer Candidate Schools.9 It happened that only one civilian employee of the Agency, First Lieutenant (since 21 January 1947, Captain) Mary Charlotte Lane, enlisted in the Women's Army Corps, went through Officer Candidate School, and then returned to the Agency for assignment. The time Lieutenant Lane spent away from Arlington Hall Station, at least so far as the business of the Signal Security Agency is concerned, may be regarded as having been largely wasted.

I. Conclusion

The achievements of the officers composing each of the categories which have been discussed above were of varying degrees of brilliance. In each group some officers were superior, some competent, and some, though diligent, were not at all suited by temperament, training, or mental capacity to be efficient in cryptologic work. In fact, the lesson that can be learned from a study of the experience of the Signal Security Agency in officer procurement is that the most important thing to be considered in selection of officers is not the group from which an officer comes but his mental capacity as an individual.

9. Such was the need for WAC officers in the Agency that one whole class, (the 48th of Oglethorpe) of 63 WAC officers was assigned upon graduation (5 February 1944) to Arlington Hall Station.
and his experience in the cryptologic field. For if any one of the
groups mentioned above can be said to have had a higher percentage
of brilliant achievement than another, it was that group which,
having been civilian employees of the Signal Intelligence Service in
peacetime, had been very carefully selected in the first place and
had longer and wider experience in signal intelligence work than
the others. These employees were on the whole, best prepared to
supervise. This fact, revealing as it does the all-important factor
of experience and training, has tremendous significance for the future.
If the strength of the Army Security Agency in the postwar period
can be kept sufficiently high, it may be possible to operate, in the
event of another emergency, with an officer staff made up entirely or
largely of men with long experience and training in signal intelli-
gence work.
CHAPTER IX. THE YEARS 1943-1945

In the first four chapters of this History of the Signal Security Agency the development of the Agency was followed in chronological order to the end of the year 1942. In the next four chapters, however, we turned aside from this method to discuss two pertinent problems which had to be solved: the establishment of an adequate home for the Agency (in chapter V), and the procurement of personnel (in chapters VI-VIII). We now take up the thread of the chronological narrative at the point where it was broken off at the end of chapter IV. It may seem at first glance that to devote a single chapter to the events of nearly three years (1943, 1944, and the first eight months of 1945), while treating the earlier period in greater detail, is inconsistent, but such is not the case. By early 1943 the groundwork for the development of the Signal Security Agency had already been well laid, and the activities of the Agency thereafter consisted largely of the fulfillment of the plans already made; the perfecting of the organization to eliminate deficiencies which in time became apparent; and the pushing forward at full speed of the tasks in hand. Moreover, the larger part of the story of the war years is contained in the description of the various operating branches which will be found in the following volumes of the History.

There remain, however, certain broad policies which need comment.

A. The Command

The period under discussion in this chapter approximates roughly
the period of command of Colonel (from 18 June 1945, Brigadier General) W. Preston Corderman, though, to be sure, Colonel Frank W. Bullock was still in command at the beginning of the period and Brigadier General Corderman remained in charge until he was relieved for an overseas assignment on 31 March 1946.

On 1 February 1943 Colonel Bullock was relieved by Colonel Corderman of his responsibilities as Chief of the Signal Security Agency, Commanding Officer of the Second Signal Service Battalion, and Commanding Officer of Arlington Hall Station. How this threefold responsibility came to be lodged in a single officer can only be understood by going back to the year 1942, when the Signal Intelligence Service, as the Agency was then called, was still housed in the Munitions Building. Colonel Bullock had assumed command on 22 April 1942 as Officer in Charge of the Signal Security Agency. To this responsibility was added on 31 July 1942 the additional duties of Commanding Officer, Arlington Hall Station. Colonel Bullock was assisted, insofar as the duties relating to the development of the Station were concerned, by Lieutenant Colonel Charles M. Blackmon, whose title was that of Assistant Commandant. On 19 November 1942 there were added to Colonel Bullock's responsibilities the duties of Commanding Officer, Second Signal Service Battalion, in the exercise of which Colonel Bullock was assisted by Major Robert E. Schukraft, Chief of the Communications Section, and by the Adjutant of the Battalion. Thus, while control
was placed in a single officer at the top, Colonel Bullock's several
responsibilities were in most cases delegated to subordinate officers,
who relieved him of routine duties. This made the position of com-
mand three-fold; as will shortly be seen, however, the command was really
four-fold, at least on paper.

B. Changes in the Name of the Agency

When, early in 1930, primary responsibility for both communi-
cations security and signal intelligence activities had finally been
amalgamated under the Chief Signal Officer, the new organization was
officially known as the Signal Intelligence Service, 1 a name which
it was destined to retain for 12 years. This designation, while in
some ways adequate, did not give any indication of the communica-
tions-security responsibilities which the organization held. Moreover, it
drew attention to the fact that the organization was in some way con-
cerned with intelligence, and this was, from the point of view of
security, an undesirable feature.

The first wartime change of name, 2 however, did nothing to

1. In the organization charts of the Office of the Chief Signal
   Officer prior to 1937 the organization was designated as the
   Signal Intelligence Section. See p. 132, sec. 1, chapter V,
   volume Three, Historical Background of the Signal Security
   Agency. See also Signal Corps Administrative Log 1939-1945.

2. The evidence for statements herein as regards changes of name
   is to be found in a series of secret tables of organization of
   the Office of the Chief Signal Officer. They were consultad
   in the Control Division, Office of the Chief Signal Officer,
   on 6 November 1945.
rectify this: on 22 June 1942 the old Signal Intelligence Service (SIS) became the Signal Intelligence Division (SID). This change was obviously motivated chiefly by expansions and reorganizations within the Office of the Chief Signal Officer.

A more radical change took place, however, on 30 September 1942 when the Signal Intelligence Division (SID) became the Signal Security Branch (SSB). This Branch, which was essentially the SIS under a new name, should not be confused with another SSB which will shortly be mentioned. With the change of 30 September 1942 the word "intelligence" ceased to be part of the name of the agency, and it has to this date (21 June 1946) not been restored. After the founding of the Army Communications Branch (ACB) of the Office of the Chief Signal Officer under Brigadier General Stoner's command, which changed its name to Army Communications Division (ACD) and to Army Communications Service (ACS), the administration of the Signal Intelligence Service—Signal Intelligence Division—Signal Security Branch, by whatever name it was called, was always a subordinate part of General Stoner's responsibilities. This status was in effect as late as the date of a table of organization published on 10 February 1943 (shortly after assumption of command by Colonel Corderman) which shows a new organization, the Signal Security Division (SSD). This organization, not subordinate to the Army Communications Division but coequal with it, was a departmental agency; 3

3. This designation corresponds with a distinction made by the Civil Service regulations, which provides a system of apportionment of personnel for "departmental agencies" equitably by states. The Civil Service regulations for "field agencies," on the other hand, are less restrictive and are administered by regional offices of the Civil Service.
under the Signal Security Division there is shown a subordinate
echelon, a "field agency", known as the Signal Security Service
(SSS). The chief of both the Signal Security Division and the
Signal Security Service was, however, the same officer, Colonel
Cordeman. Whether the table of organization just mentioned was
in error in showing the Signal Security Service as not being subordin-
ate to General Stoner's Army Communications Division, or whether there
was a short period when the Signal Security Service and the Signal
Security Division were independent of the ACO is not of record, but
it was always believed in the Signal Security Service that the next
officer in the chain of command was General Stoner, as had been true
for about a year prior to this time and was certainly true after
1 July 1943.  A table of organization published on that date once
more changed the name of the Agency, this time to Signal Security
Agency ("SA"), a name which remained in effect until 15 September 1945,
when, for reasons which will be explained later, it was finally changed
to Army Security Agency (ASA).

In addition to the Signal Security Agency there appears on the
Table of Organization, 1 July 1943 a staff (or "departmental") organi-
sation in the Office of the Chief Signal Officer known as the Signal
Security Branch (SSB) and Colonel Cordeman was Chief of this Branch.

4. Mr. Friedman says on this point: "I believe the intention was to
have the SSB and ACO coequal, but personnel complications made this
impractical: there was no Signal Corps officer of suitable rank
and experience in Signal Intelligence to head the organisation."
as well as Chief of the Signal Security Agency, the "field service." The only person belonging to this Signal Security Branch was Colonel Corderman, and its correspondence, which was not voluminous, was prepared at Arlington Hall Station for the signature of Colonel Corderman. For all practical purposes, this Signal Security Branch may be eliminated from further discussion. The arrangement in this respect was purely for administrative reasons: all Signal Corps organizations which were physically located outside Washington were considered to belong to what was generally called the "field service"; in Washington, as a part of the "departmental service", there was usually some staff unit in the Office of the Chief Signal Officer which administered the field unit and served staff functions for it. The SSA and SSB conformed to this general pattern, as did all other units under the Chief Signal Officer.

C. The Organization

At the time of the Pearl Harbor attack the 331 officers, enlisted men, and civilian employees of the Signal Intelligence Service were

5. From its inception the SIS was sometimes referred to as the "Signal Intelligence Service at Large."

6. The breakdown of the 331 employees was as follows:

<table>
<thead>
<tr>
<th></th>
<th>In Washington</th>
<th>In the Field</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>44</td>
<td>1</td>
<td>45</td>
</tr>
<tr>
<td>Enlisted men</td>
<td>28</td>
<td>149</td>
<td>177</td>
</tr>
<tr>
<td>Civilians</td>
<td>102</td>
<td>1</td>
<td>103</td>
</tr>
<tr>
<td>Total</td>
<td>174</td>
<td>150</td>
<td>324</td>
</tr>
</tbody>
</table>
organized into four sections as follows:

A. Administrative
B. Cryptanalytic
C. Cryptographic
D. Laboratory

In addition to these four sections, the enlisted men who performed intercept operations were organized into detachments of the Second Signal Service Company.\footnote{7}{On the Second Signal Service Company, see chapter VII above.} Twenty-eight of the men of the Company were on duty in Washington and were assigned to the four sections.

The Administrative (A) Section performed those duties normally associated with the word "administrative": supervision, personnel work, etc. It contained a subsection (A-1), however, which operated tabulating machinery. This subsection later was attached to the Cryptanalytic (B) Section (as B-7) and subsequently became the Machine Branch (SPSIN).\footnote{8}{For the full history of the Machine Branch, see volume Eleven.}

The Cryptanalytic Section contained at that time four subsections devoted to the cryptanalytic study of as many types of traffic. One worked on Japanese systems, another on German systems, and a third on Italian systems, while the fourth was a sort of omnium gatherum subsection which studied Mexican and other Latin-American systems as well as systems of France, Spain, and Portugal. The four Cryptanalytic subsections, after several expansions and reorganizations, ultimately became the General Cryptanalytic Branch (SPSIB-3),\footnote{9}{For the full history of the General Cryptanalytic Branch, see volume Two.} the Military
Cryptanalytic Branch (SPSIB-2),\textsuperscript{10} and the Language Branch (SPSIB-1).\textsuperscript{11}

In addition to the four "language subsections," there were two others which performed, respectively, stenographic and traffic control and routing tasks. The former was chiefly concerned with the typing of the daily Bulletin of translated traffic; the latter not only received, sorted, and delivered the traffic to the Cryptanalytic sections but also formed a channel through which intercept control was possible. It ultimately became known, successively, as "E Branch" and the Communications Branch (SPSIB).\textsuperscript{12} Likewise, the Stenographic Subsection was ultimately one of the units united to form the Information and Liaison Branch (SPSIB).\textsuperscript{13}

The Cryptographic (C) Section performed all duties concerned with the invention, development, production, distribution, and accounting for all cryptographic systems adopted by the United States Army (including security studies of systems in use) and with the monitoring of traffic for violations of communications security. The Section was subdivided into seven subsections (C-1 to C-7). After several expansions and reorganizations these seven subsections ultimately became the Communications Security Branch (SPSIB-6A),\textsuperscript{14} the Cryptographic Material

\textsuperscript{10} For the full history of the Military Cryptanalytic Branch, see volume Three.

\textsuperscript{11} For the full history of the Language Branch, see volume Four.

\textsuperscript{12} For the full history of the Communications Branch, see volume Six.

\textsuperscript{13} For the full history of the Information and Liaison Branch, see volume Seven.

\textsuperscript{14} For the full history of the Communications Security Branch, see volume Eight.
Branch (SPSIC), and the Equipment Branch (SPSIF).

The Laboratory (D) Section at this period already had the threefold function of preparing secret inks for the use of the United States Army, of detecting the use of secret inks in suspected documents, and of performing photographic services. It ultimately became the Laboratory Branch (SPSID).

The four sections (A, B, C, and D) mentioned above comprised the entire Agency until August 1942, when, with the move to Arlington Hall Station, Subsection B-6 (Traffic) was removed from B Section and made Subsection E of the Communications Section. Later, on 15 December 1942, the Shop of the Cryptographic Section was removed from that section and became the nucleus of F Section (later the Development Branch, and still later the Equipment Branch). Another subsection of B Section was likewise elevated to the status of a section when the Tabulating Machinery Subsection, then called B-4, was, in January 1944, given autonomous standing as C Branch (later known as the Machine Branch). It will be noted that soon after, another subsection of B Section was elevated to section status when the Tabulating Division Subsection B-3 was made the nucleus of A Section (later the Production Branch), thereby making the four sections as designated above.

15. For the full history of the Cryptographic Material Branch, see volume Eight.
16. For the full history of the Equipment Branch, see volume Nine.
17. For the full history of the Laboratory Branch, see volume Seven.
18. When C Branch was set up, certain elements of E Branch concerned with traffic analysis and control were set up as B-4.
after the activation of F Section (15 December 1942), the term "branch" began to be used in place of "section". The change was made official in Memo No. 7, 26 March 1943, subject, "Reorganization."

In the organization as described thus far, the letter "A" designated the administrative overhead of the Agency, but after the Protective Security Branch (SPSBP)\(^\text{19}\) which had been established (18 November 1942) in the Office of the Chief Signal Officer, was transferred on 13 April 1943 to the Signal Security Agency, the letter "A" was used to designate the Protective Security Branch. The older "A Section", which by this time comprised a complexity of units performing overhead administrative duties (general supervision, personnel, personnel services, and administration of Arlington Hall Station, including the Guard, the Dispensary, the Post Engineer, etc., now became "Headquarters" (later "Headquarters Branch") with the Administrative Officer, Arlington Hall Station as Officer in Charge. Headquarters Branch performed, in fact, all functions of the Agency not primarily concerned with operations. The Administrative Officer, in addition to his other duties, served as Commanding Officer of Troops, a position which gave him direct supervision of all enlisted personnel of the Battalion stationed at Arlington Hall except that his control did not extend to supervision

\(^{19}\) For the full history of the Protective Security Branch, see volume I.
SECRET

CHIEF, SIGNAL SECURITY SERVICE
COLONEL FRANK W. BULLOCK

ASSISTANT COMMANDANT
LT. COLONEL CHARLES M. BLACKMAN

DIRECTOR OF COMMUNICATIONS
RESEARCH
MR. WILLIAM F. FRIEDMAN

A SECTION
LT. COLONEL J.B. MATHES

B SECTION
LT. COLONEL HUMPHREY D. DODD

C SECTION
LT. COLONEL CHARLES P. COOK

D SECTION
LT. COLONEL A. J. MCGRILL

E SECTION
MAJOR H. M. BROWN

F SECTION
CAPTAIN DON ROSEN

3D SIGNAL SERVICE BN.
COLONEL FRANK W. BULLOCK

Subordinate Installations

ARLINGTON HALL STATION
CAPTAIN FRANK W. BULLOCK

VINT HILL FARMS
CAPTAIN HENRY C. MINKLER

FOOT OF RANCH
CAPTAIN CLYDE V. SIMPSON

FORT SHAPLET
M/Sgt. GILBERT D. ZEANA

FAIRBANKS, ALASKA
M/Sgt. GRAFTON A. BULL

FORT SAM HOUSTON
1st LT. CHARLES H. GREGG

BELLPORT, LONG ISLAND
M/Sgt. LEO A. RIVERS

CANAL ZONE
1st LT. VIRGEHT M. SANTO

RIO DE JANEIRO
W. O. RIVORS H. WORROCK

NEW DELHI, INDIA
MAJOR JOSEPH J. MARTEN

NOTES
1. Served as Director of Training, AHS and VHPS, per C. O., VHPS, per S.O. 65, per 1, AHS, 12 Nov 42.
3. Relieved from Det. 22 Sig Svc Bn, 2 Sep 43 per S.O. 700, per 3, OCCUOG 0.0., 22 Sep 43.
4. Relieved from 372 Sig Svc Bn, per Hq USAP MIDPAC, 1 Feb 46. Became Captain 10 Mar 44.
5. Sent from AHS on secret orders dated 2 Jan 42. Returned from New Delhi 3 Feb 44.
6. Relieved per PAC Ltr WD 00310, 12 Jul 44.
7. Deactivated 19 Feb 45.
9. The detachment at Corozal was deactivated 19 Feb 45.
10. Sergeant Rivers (alias Nancskowski) was attached to 1st Base Hq AB Sdn AAB, Mitchell Field, L.I., N.Y. on 10 Nov 43 and was transferred to Hq 24 Sig Bn, AHS per S.O. 227, 9 Oct 44.
11. Lieutenant Santoro served as CO from February 1942 to 15 Feb 43.

SIGNAL SECURITY SERVICE
31 January 1945
ever the technical duties they performed in the operating units.

Headquarters Branch contained, from 5 July 1943 to 29 February 1944, a unit known as the Coordination Section, together with various service sections (Bulletin, Information, Library) and certain documentation and liaison units which had always been concerned chiefly with operations and which were located in Operations B Building. These diverse elements of the Coordination Section and the Information and Liaison Section were amalgamated on 1 March 1944 to form the Information and Liaison Branch (SP5IR), leaving Headquarters Branch with what came to be known as the Arlington Hall Station complement.

We now return to the Cryptanalytic (B) Branch, which, at the point when we last mentioned it (p. 267), had contained four cryptanalytic units and two service units. It was in this Branch that the greatest expansion took place and the greatest amount of reorganization was necessary. It will serve no useful purpose to recount here the reasons which lay behind the changes which were made; suffice it to state that, largely as a result of the successful entry made into the Japanese military cryptography system in the spring of 1943, the Cryptanalytic Branch was reorganized (1 September 1943) as follows:

- B-1 Language Section [Japanese only]
- B-2 Military Cryptanalysis Section [Japanese only]
- B-3 General Cryptanalysis Section
- B-4 Tabulating Machinery Section

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20. They are discussed in detail in volume Two, chapter I.

1. Relieved per S.O. 100, per 5, 27 Apr 44.
2. Assigned per S.O. 126, per 2, 29 May 44 as lst Director of Training.
3. Relieved per S.O. 75, per 9, 3 Apr 44.
4. Acting Chief during absence of Col. Allsop in ETO, per S.O. 139, per 8, 13 Jun 44.
5. Acting Chief during absence of Lt. Col. Brown at OSS, per S.O. 149, per 1, 7 Jun 44.
6. Created from I & L & Coordination Sections directed by Assistant Commandant.
7. Prom 1 Mar 44 to 28 Sep 44, when he went to OSS, per S.O. 51, per 16, 1 Mar 44.
8. Assigned TFB, per S.O. 246, per 1, OSSigS, 26 Nov 43, eff. 1 Dec 43.
9. Transferred to SCA, 18 Jun 44.
10. Relieved per ACS S.O. 171, per 11, 19 Jun 44.
11. lst Lt. Rudolf E. Polski assigned and joined from ACS per WD L.O. 25 May 44 assigned per ACS S.O., 20 Jun 44.
12. Promoted to Capt. WD S.O. 525, per 12, effective 2 Oct 44.
13. Assigned per ASP S.O. 134, per 1, 22 Jun 44.
14. Assigned on secret orders to San Francisco P026 Dec 42; relieved from duty at Honolulu, H.I., per L.O. AMS 6 Jul 44.
15. Assigned Fort Shafter 11 Apr 44; relieved per par 9 WD S.O. 270, 13 Nov 45, effective 16 Feb 46.
16. M2-S inactivated 29 Nov 45.
17. Relieved W/SC Upon 19 Jul 44 and served as Detachment Commander until 26 Nov 45.
18. Detachment Commander from 10 Sep 44. Relieved per par 10 S.O. 294, 9427 TSO, SigS ACS 31 Oct 46.
PLAN OF ORGANIZATION
SIGNAL SECURITY AGENCY
1 Mar 44 to 5 Oct 44
The Information and Bulletin Subsection, the Document Subsection, and the Liaison Subsection of B-1 were transferred, prior to 29 August 1943, to Headquarters Branch as the Information and Liaison (I&L) Section (SPSIR) which, as we have seen (p.271) ultimately became (1 March 1944) the Information and Liaison Branch.

The designation "B-5" was for a time (February to August 1944) employed to denote a unit of Nisei located at Vint Hill Farms Station and employed in Japanese translations and a limited amount of cryptanalysis. In August 1944 this Nisei unit was subordinated to the Language Branch as B-I-3.

Reporting directly to the Chief, Signal Security Agency were a number of staff advisors. The first of these (established on 24 November 1942) was the Director of Communications Research. After 26 March 1943 there was also a Director of Training, whose principal function was the coordination of all training projects under the Chief, Signal Security Agency. The duties of this officer, however, were ultimately assigned to the Training Branch when that Branch was activated on 5 October 1944. This was merely

22. From the establishment of the office till the present (March 1947) the Director of Communications Research has been Mr. William F. Friedman.

23. See volume Twelve, chapter II for details as to the situation which led to the creation of this office and the appointment of Major Frank B. Rowlett as first Director of Training.
a change of name, not of function.

As a result of all these changes in the Agency, the following organization, as of 1 March 1944, had gradually developed:

   Administrative units (Arlington Hall Station, etc.)
   A. Protective Security Branch (SPSIB)
   B. Cryptanalytic Branch (SPSIB)
       Language Section (SPSIB-1)
       Military Cryptanalysis Section (SPSIB-2)
       General Cryptanalysis Section (SPSIB-3)
       Traffic analysis and Control Section (SPSIB-4)
   C. Cryptographic Branch (SPSIC)
   D. Laboratory Branch (SPSID)
   E. Communications Branch (SPSIE)
   F. Development Branch (SPSID)
   G. Machine Branch (SPSIN)
       Information and Liaison Branch (SPSIR)

It will be noted that in the list given above the only branch in which a breakdown into sections is shown is the Cryptanalytic Branch, which was by far the largest; indeed, each of its first four sections was as large or larger than most of the other branches, yet they were officially designated as sections. As a result, the Chief of the Cryptanalytic Branch was in direct control of the largest portion of the personnel on the Post. To correct this top-heavy situation, the Signal Security Agency was again reorganized (21 August 1944) on the basis of four divisions, as follows:

   Intelligence Division (SPSIC-9)
   Security Division (SPSID-9)
   Operating Services Division (SPSIE-5)
   Personnel and Training Division (SPSIN-4)

All personnel not in one of these four divisions was assigned either to the Administrative Office, Arlington Hall Station, or to the Office
PLAN OF ORGANIZATION
SIGNAL SECURITY AGENCY
5 October 1944
of the Commanding Officer, Signal Security Agency.

The Intelligence Division was composed of five new branches which were not, except in name, different from the sections of the former Cryptanalytic (B) Branch:

- Language Branch (SPSIB-1) [Japanese only]
- Military Cryptanalytic Branch (SPSIB-2) [Japanese only]
- General Cryptanalytic Branch (SPSIB-3)
- Traffic Analysis and Control Branch (SPSIB-4)
- Information and Liaison Branch (SPSIB)

The Security Division, somewhat smaller in number of component branches and much smaller in number of personnel, was comprised of three branches:

- Cryptographic Branch (SPSIC), after 1 April 1945 divided into:
  - Cryptographic Material Branch (SPSIC)
  - Communications Security Branch (SPSIS-2A)
  - Protective Security Branch (SPSAP)
  - Equipment Branch (SPSIP)

The Operating Services Division consisted of four branches:

- Laboratory Branch (SPSID)
- Communications Branch (SPSIE)
- Machine Branch (SPSIN)
- Supply Branch (SPSIS-5A)

Each of these branches of the Operating Services Division performed services for both of the two divisions mentioned previously, though, to be sure, the Laboratory Branch in a sense performed independent functions as well, such as the preparation and detection of secret inks. The Supply Branch, which has not previously been mentioned, was newly formed by concentrating within a single branch supply functions which had previously been scattered. Yet not all the
PLAN OF ORGANIZATION

SIGNAL SECURITY AGENCY

5 Oct 44 to 1 Feb 45
PLAN OF ORGANIZATION
SIGNAL SECURITY AGENCY
June 1945
branches which could be called "operating services" branches were included in the Division of that name. The Information and Liaison Branch was assigned to the Intelligence Division and the Equipment Branch to the Security Division, despite the fact that both had functions which were actually operating services affecting more than one division. Yet each of these two branches performed most of its work for the division to which it was attached, and for this reason these branches were not made parts of the Operating Services Division.

The fourth division was the Personnel and Training Division which contained only two branches:

- Personnel Branch
- Training Branch

The Personnel Branch has been recently formed by amalgamating all the personnel units previously under the Administrative Officer.

While the establishment of the divisional organization on 5 October 1944 did not result in completely equalizing the responsibilities of individual branch chiefs with regard to the number of personnel for which they were responsible, the new arrangement, which was definitely an improvement, continued to the end of the War. The branch chiefs were better able to control operations, and the Commanding Officer, having fewer persons reporting directly to him, was better able to direct the work of the Agency.
A. The Period November 1939 to 9 March 1942

During the first ten years of its existence the Signal Intelligence Service was a part of the War Plans and Training Division of the Office of the Chief Signal Officer. In an organization chart dated 9 November 1939 it is shown as being responsible to the Chief Signal Officer, Major General J.O. Mauborgne, who reported directly to the Chief of Staff.

CHIEF OF STAFF

General George C. Marshall

CHIEF SIGNAL OFFICER

Major General J.O. Mauborgne

CHIEF, SIGNAL INTELLIGENCE SERVICE

Colonel S.B. Akin

Under this relatively simple arrangement the SIS was more or less closely associated with the Chief Signal Officer. As the Office of the Chief Signal Officer was expanded, however, incident to its wartime commitments, this relationship was altered and the Signal Intelligence Service was subsumed into the Office of the Chief Signal Officer.

24. Signal Corps Administrative Log 1939 to 1945, Chart 1

25. Colonel Minckler was Chief of the Signal Intelligence Service from 7 June 1941 to 13 April 1942, when he became Chief, Cryptographic Operations Branch, SIS and Chief, Cryptographic Training Branch, SIS. From 16 November 1942 to 17 June 1943 he was Director of Training AHS and VHFS and CAD, VHFS.
Intelligence Service, with ever increasing responsibilities, found itself in a lower and lower echelon position.

Thus, when the Office of the Chief Signal Officer was reorganized on 7 August 1941 into three Branches (Administrative, Materiel, and Operations), the Signal Intelligence Service was made subordinate to the Operations Branch under Colonel Otis K. Sadtler.

CHIEF SIGNAL OFFICER

Brigadier General Dawson Olmstead (Acting)

CHIEF, OPERATIONS BRANCH

Colonel Otis K. Sadtler

CHIEF, SIGNAL INTELLIGENCE SERVICE

Lt. Colonel Rex W. Minckler

Colonel Sadtler, on 1 January 1942, became Chief of the newly created Army Communications Branch and the Signal Intelligence Service was removed from the Operations Branch and placed under the Army Communications Branch. The chain of command was not greatly affected.

26. Colonel Sadtler was assigned Chief, Operations Branch, OCSigO on 12 August 1941. Signal Corps Administrative Log, Chart 2

27. General Olmstead was Chief Signal Officer from October 1941 to June 1943.

28. Later (22 June to 30 September 1942) a service, and still later a division of OCSigO. See Signal Corps Administrative Log, Chart 6.

29. It will be noted that the Signal Intelligence Service was transferred along with the chief of the echelon to which the SIS belonged. This practice was frequently followed in the SIS itself.
SIGNAL CORPS UNITS
10 October 1941
The Chain of Command

CHIEF SIGNAL OFFICER
Major General Dawson Olmstead
CHIEF, ARMY COMMUNICATIONS BRANCH
Colonel Otis K. Sedtler
BRIGADIER GENERAL FRANK E. STONE
CHIEF, SIGNAL INTELLIGENCE SERVICE
Lt. Colonel Rex W. Minckler

B. Changes Incident to Reorganization of the Army,
2 March 1942

A reorganization of the Army on 9 March 1942 resulted in the
subordination of the Office of the Chief Signal Officer to the newly
established Services of Supply and in a reorganization of the OCSigO
into five branches. The Signal Intelligence Service, as a part of
the Army Communications Branch, was grouped with the various other
divisions of the Army Communications Branch and with the Materiel
Branch under what was known as the Supply Service of OCSigO. The
Operations Branch and the Communication Coordination Branch of the
OCSigO were placed under the Chief of Field Service.

30. General Stoner was assigned as Chief, Army Communications Branch
25 February 1942. He was relieved as Chief, Army Communications
Division 2 March 1943 to become Chief, Signal Operating Services.

31. By Executive Order of the President, dated 2 March 1942.

The new chain of command removed the Signal Intelligence Service another echelon from the Chief Signal Officer.

CHIEF OF STAFF
General George C. Marshall

COMMANDING GENERAL, SERVICES OF SUPPLY
Major General Brehon D. Somervell

CHIEF SIGNAL OFFICER
Major General Dawson Olmstead

CHIEF, SUPPLY SERVICE
Brigadier General Roger B. Colton

CHIEF, ARMY COMMUNICATIONS BRANCH
Brigadier General Frank E. Stoner

CHIEF, SIGNAL INTELLIGENCE SERVICE
Lt. Colonel Rex W. Minkler

(Colonel Frank W. Bullock)

C. Changes Incident to Reorganization of OCSigO
22 June 1942

On 22 June 1942 the Signal Corps was again reorganized and the number of "services" was increased from two (Field and Supply) to four (Signal Supply, Army Pictorial, Army Communications, and Signal Intelligence Service).

33. General Colton was designated Chief, Supply Service, OCSigO 7 March 1942.

34. Colonel Bullock, designated Officer in Charge, Signal Intelligence Service on 2 May 1942, served as such until 1 February 1943.
X. The Chain of Command

35. At this time the next lower echelon was designated a "division," and the echelon next below the division was designated a "branch." The Signal Intelligence Service thus became the Signal Intelligence Service Division under the Director, Army Communications Service.

The chain of command at this time (22 June 1942) was as follows:

CHIEF SIGNAL OFFICER

Major General Dawson Olmstead

DIRECTOR, ARMY COMMUNICATIONS SERVICE

Brigadier General Frank E. Stoner

CHIEF, SIGNAL SECURITY DIVISION

Colonel Frank W. Bullock

Lt. Colonel Hinckler served for a time under Colonel Bullock as Chief, Cryptographic Training Branch, SIS and as Chief, Operations Branch, SSD.

D. Changes Incident to Reorganization OCSIGO

10 September 1942

The Office of the Chief Signal Officer was reorganized again on September 1942 into six divisions, two of which (Materiel, and Research and Development) were placed under the Chief, Signal Supply Services,

35. On 30 March 1942 the designation Chief, Field Service and Chief, Supply Service was changed to Director, Field Service and Director, Supply Service. The designation "Director" was continued and applied to the OIC of each of the five services. See Signal Corps Administrative Log, Chart 17.

36. Also designated at one time during the adjustment period following the 22 June reorganization of the OCSigO as Signal Intelligence Service Division. See Signal Corps Administrative Log, Chart 17b.
and three of which (Army Vactorial, Signal Troops, and Army Communications) were placed under the Chief, Signal Operating Services. Since the Signal Security Division was to become a part of the Army Communications Division, it was redesignated the Signal Security Branch.

CHIEF SIGNAL OFFICER

Major General Dawson Olstead

CHIEF, SIGNAL OPERATING SERVICES


DIRECTOR, ARMY COMMUNICATIONS DIVISION

Brigadier General Frank E. Stoner

CHIEF, SIGNAL SECURITY BRANCH

Colonel Frank W. Bullock

A modification of this plan of organization on 7 January 1943 put the Signal Security Division under the Office of the Chief Engineer, OCSigO, as shown in the following:

37. The Administrative Division was separate. The heads of the divisions were designated "Director". See Signal Corps Administrative Log, Chart 18.

38. General Code was designated Chief, Signal Operating Services, OCSigO 24 August 1942.

Director, Army Communications Division

Brigadier General Frank E. Stoner

Office of the Chief Engineer

Colonel W.C. Henry

SIGNAL SECURITY BRANCH

Colonel Frank N. Bullock

(Colonel W. Preston Corderman)

E. Changes Incident to Reorganization of OC SigO

2 March 1943

On 2 March 1943, Brigadier General Stoner was made Chief, Signal Operating Services, vice Major General Code, who was promoted to Assistant Chief Signal Officer. A Signal Security Division was established as one of four divisions subordinate to the Chief, Signal Operating Services. The former Signal Security Branch, which from 1 February 1943 had been under Colonel Corderman, was now renamed the Signal Security Service and attached to the Signal Control Section of the Signal Security Division. The chain of command was as follows:

40. Colonel Corderman was designated as Chief, Signal Security Branch on 1 February 1943. He was relieved for overseas duty on 31 March 1946, when Colonel Harold G. Hayes was made Chief of the Agency.

41. As no one was available to become Director of the Signal Security Division, the division consisted of Colonel Corderman, who acted as Director in addition to his other duties, and a letterhead. See Signal Corps Administrative Log, Chart 21.
F. Changes Brought About under General Inglis

Major General Harry G. Inglis became Chief Signal Officer on 1 July 1943 and the Office of the Chief Signal Officer was reorganized according to a plan of organization adopted on that date into Staff Divisions, Operating Services, and Field Activities. Thus the Signal Security Agency (formerly the Signal Security Service) was designated a Field Activity under the Army Communications Service (an Operating Service). There was also a Signal Security Branch, to which no one was ever assigned. The chain of command was as follows:

42. Both the SSB and the SCS were set up apparently solely for administrative purposes, and Colonel Corderman reported directly to General Stoner.

43. The functions of the SSB were carried out by the Chief, Signal Security Agency.
I. The Chain of Command

CHIEF OF STAFF

General George C. Marshall

COMMANDING GENERAL, ARMY SERVICE FORCES

Lt. General Brehon B. Somervell

CHIEF SIGNAL OFFICER

Major General Harry C. Ingles

CHIEF, ARMY COMMUNICATIONS SERVICE

Brigadier General Frank E. Stoner

SIGNAL SECURITY BRANCH

CHIEF, SIGNAL SECURITY AGENCY

Colonel W. Preston Cordue

Thus, during the early part of the Fiscal Year 1943, the organization of the Office of the Chief Signal Officer became stabilized and the chain of command remained unchanged up to the time (15 September 1943) when the Signal Security Agency was transferred from the Signal Corps to become the Army Security Agency under the Assistant Chief of Staff, G-2.

44. The Services of Supply was, on 12 March 1943, redesignated the Army Service Forces, which later (11 June 1946) became the Services of Supply and Procurement.

45. The Signal Security Service was redesignated the Signal Security Agency by OCSigO Office Memo No. 72, 9 July 1943.

46. Colonel Cordue became a Brigadier General 18 June 1945.
In the preceding chapter of this History of the Signal Security Agency in World War II we have attempted to review the administrative actions which led to the successful fulfillment of the twofold primary mission of the Agency, namely:

a. The preservation of the security of U. S. Army communications, and

b. The production of intelligence from the intercepted communications of foreign governments, both hostile and friendly.

The value of this work will be described and assessed in specific detail in the remaining twelve volumes of this series. Here, however, some attempt should be made to provide a general evaluation of the effort as a whole. It can be said without fear of contradiction that the Agency, working constantly in collaboration with corresponding agencies in the sister services of the United States and to a more limited extent with those of the allied governments of the British commonwealth, achieved unprecedented success in reaching the goal set before it. Despite the seemingly insurmountable difficulties inherent in the general nature of signal communications per se and the obstacles, cunningly devised by countless workers in similar agencies maintained by foreign governments, both of the Axis as well as on neutral nations, the effect of the work of this Agency and its collaborators was to preserve the integrity of U. S. Army communications from potential cryptanalytic attack on the one hand and to produce an immense amount of highly valuable intelligence useful to our commanders in both strategic and tactical
operations.

Though the fact that the imperative secrecy of such operations as these prevents giving to the general public complete information concerning successes and thus tends to reduce the amount of praise which can be found in pronouncements of outsiders, it is yet possible to present a certain amount of unprejudiced evaluation coming from those in a position really to know the value of the product.

For example, testimony as to the value of the Signal intelligence produced largely through the efforts of the Signal Security agency before and during World War II, can be found in the remarkable letters of General George C. Marshall to Governor Thomas E. Dewey dated 25 and 27 September 1944, in which he said:

1. As a comment on the President's reaction to General Marshall's approach to Governor Dewey, the following passage taken from the book by Robert E. Sherwood, Roosevelt and Hopkins (New York 1948), p. 827, is of interest:

   During the latter part of October, Hopkins heard from General Marshall the amazing story of how someone, apparently in the armed services, had imparted to Dewey the fact that the United States had broken the Japanese codes before Pearl Harbor, and of Marshall's urgent message to Dewey that the revelation of this fact would be calamitous. Hopkins wrote of this:

   Later that day I repeated this conversation to the President. The President was surprised at the action Marshall had taken but expressed no criticism of that action. He merely stated that he felt confident that Governor Dewey would not, for political purposes, give secret and vital information to the enemy. His only other further comments were: "My opponent must be pretty desperate if he is even thinking of using material like this which would be bound to react against him." The President wondered what officer or government official had been so faithless to his country as to give Governor Dewey the information. To the best of my knowledge the government never discovered who gave Governor Dewey this military information.
...the Battle of the Coral Sea was based on deciphered messages and therefore our few ships were in the right place at the right time. Further, we were able to concentrate our limited forces to meet their Japanese advances on Midway when otherwise we almost certainly would have been some 3,000 miles out of place.

We had full information of the strength of their forces in that advance and also of the smaller forces directed against the Aleutians which finally landed troops on Attu and Kiska.

Operations in the Pacific are largely guided by the information we obtain of Japanese deployments. We know their strength in various garrisons, the rations and other stores continuing available to them, and what is of vast importance, we check their fleet movements and the movements of their convoys.

The heavy losses reported from time to time which they sustain by reason of our submarines action largely results from the fact that we know the sailing dates and the routes of their convoys and can notify our submarines to lie in wait at the proper point.

The current raids by Admiral Halsey's carrier forces on Japanese shipping in Manila Bay and elsewhere were largely based in timing on the known movements of Japanese convoys, two of which were caught, as anticipated, in his destructive attacks ... 

...The conduct of General Eisenhower's campaign and of all operations in the Pacific are closely related in conception and timing to the information we secretly obtain through these intercepted codes. They contribute greatly to the victory and tremendously to the savings of American lives, both in the conduct of current operations and in looking toward the early termination of the war ...

The following quotation is taken from page 31 of the Summary Report (Pacific War) of the United States Bombing Survey dated 1 July 1946:

In the field of operational intelligence considerable forward strides were made during the Pacific war. The requirements in this field for a large volume of detailed and accurate work, for complex analysis geared to rapidly changing capabilities of forces and weapons, and for speed, all place a heavy burden on training, competence and organization. These requirements were not fully met in the Pacific war; the deficiency was at times serious. This was in large measure traceable to a prewar lack of trained and competent operational intelligence officers to provide an adequate nucleus for an expanding organization.
The basis for adequate intelligence can only be laid in peacetime. The solution to our problem in this field appears in part to be the greater centralization to be provided by the National Intelligence Authority, particularly in securing more adequate coordination and dissemination. It appears also to lie in close integration into the various operating organizations of appropriate intelligence units, adequate budgets and personnel for intelligence work, and a sufficient increase in the prestige attached to such work to attract the highest quality of personnel. This latter can only come from increased training in intelligence and active appreciation of its functions on the part of other Army, Navy, and Government officials. The present lack of recognized responsibility for intelligence work by the various operating organizations and the present shortage of trained and competent intelligence personnel give cause for alarm and require correction.

Intelligence: At the start of the Pacific war our strategic intelligence was highly inadequate, and our overall war plans, insofar as they were based on faulty information and faulty interpretation of accurate information, were unrealistic. After Pearl Harbor the obtaining and analysis of economic and industrial information necessary to the planning of an attack on Japan's sustaining resources required several years of the most strenuous effort and even then substantial gaps remained. If a comparable lack of intelligence should exist at the start of a future national emergency, it might prove disastrous.

The testimony of important and high ranking witnesses in the Hearings hold by the Joint Congressional Committee on the Investigation of the Pearl Harbor Attack led the Majority in their report (p. 253) to characterize the signal intelligence produced by the Army and Navy as "some of the finest intelligence available in our history" and on page 232 of the same report to say:

The success achieved in reading the Japanese diplomatic codes merits the highest commendation and all witnesses familiar with Magic material throughout the war have testified that it contributed enormously to the defeat of the enemy, greatly shortening the war, and saving many thousands of lives.

The Assistant Chief of Staff, G-2, Major General Stephen Chamberlain, who served throughout the war in the Pacific as Assistant Chief of Staff,
G-3 on General MacArthur's staff, on the occasion of a visit to Arlington Hall at the close of the war, was somewhat more specific as to the extent of this contribution, when he said:

The information G-2 gave G-3 in the Pacific Theater alone saved us many thousands of lives and shortened the war by no less than two years.

The information referred to consisted almost entirely of signal intelligence, produced in large measure from messages processed at the Signal Security Agency.

During the fiscal Years 1945 and 1946 Congress appropriated for the entire Army expenditures the following sums:

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>$15,438,453,935</td>
</tr>
<tr>
<td>1946</td>
<td>21,428,788,579</td>
</tr>
<tr>
<td>Total</td>
<td>36,867,242,514</td>
</tr>
</tbody>
</table>

It is not possible to state precisely how much the Signal Security Agency spent in the same two years and for two reasons: (1) in accordance with Army regulations and procedures, elements of the Signal Security Agency made considerable use of their privilege of requisitioning from normal Army sources of supply items for which no dollar value is known, and (2) the cost of maintaining the overseas units of the Signal Security Agency was charged to the theaters of operation in which these units were stationed and not to the Signal Corps budget. For these two items in the total expenditures, therefore, no information is available and these items must be estimated on the most reliable basis possible. The expenditures were therefore as follows:
XI
The Value and the Cost

Cash paid out including civilian payroll, purchases and contracts within the continental limits .... $23,947,358.16
Military payroll within the continental limits .... 8,862,119.90
Real estate including construction costs based on the assumption that the entire sum would be paid in four years time \( \ldots \) 3,125,000.00

\textit{Estimate} of dollar value or requisitions \( \ldots \) 4,500,000.00
\textit{Estimate} of dollar value of overseas requisitions \( \ldots \) 8,000,000.00

Total SSA expenditures for Fiscal Years 1945-6 \( \ldots \) 45,434,780.06

If these figures are reliable, and they are believed to be so, subject to the \textit{caveat} expressed above, then of the \$36,937,252.505 spent by the Army in the Fiscal Years 1945 and 1946, the Signal Security Agency spent only \$45,434,478.06 which is one dollar for every 812 spent by the entire Army, or, to put it in another way, 1.2 mills out of every dollar spent, or 0.12 per cent.

To return to General Chamberlin's statement quoted above, it is deemed unnecessary to labor the point that if the results indicated by him were achieved, the percentage of the total cost of the two final war years was exceedingly small for so tremendous a saving in lives and money.
HISTORICAL NOTE

Paragraph 3 of the Minutes of the 10th Meeting of the Coordinating Committee of the Signal Security Service (9 March 1943) makes reference to the following charts as follows:

3. ORGANIZATION CHART, SIGNAL SECURITY SERVICE

Changes were submitted from all sections on the organization chart of the Signal Security Service. The revised chart will be prepared and disseminated by the Executive Officer.

With the issuance in March 1943 of this chart, the sections were redesignated as branches.
**SUMMARY OF S.S.S. PERSONNEL**

<table>
<thead>
<tr>
<th>PROPOSED</th>
<th>PRESENT ALLOW</th>
<th>NET INCREASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRIG. GENERAL</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>COLONELS</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>MAJORS</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>CAPTAINS</td>
<td>84</td>
<td>11</td>
</tr>
<tr>
<td>1LTs.</td>
<td>149</td>
<td>40</td>
</tr>
<tr>
<td>2LTs.</td>
<td>151</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL OFFICERS</td>
<td>457</td>
<td>122</td>
</tr>
<tr>
<td>TOTAL CIVILIANS</td>
<td>122</td>
<td></td>
</tr>
</tbody>
</table>

*PRESENT ALLOWMENT AUTHORIZED ON CIVILIAN STRENGTH OF 558. PROPOSED STRENGTH 5846.*

*INCLUDES NO 2ND SIG. SER. BN. PERSONNEL OR STUDENTS UNDER TRAINING SECTION.*
EXECUTIVE OFFICER

POST COMMANDER

EMPLOYEE SERVICE

1-CAF 6
1-CAF 5
2-CAF 3

ADJUTANT

1-MAJOR
1-CAPTAIN
1-CAF 4

ASST EXECUTIVE OFFICER

1-LT COLONEL
1-CAPTAIN
1-CAF 5
2-LT (LTS.)
1-CAF 3

OFFICER GUARD

2-1LT
4-2LT
16-CMP

PERSONNEL SECTION

1-MAJOR
1-CAPTAIN
1-CAF 6

FISCAL SECTION

1-MAJOR
1-CAF 6

SUPPLY SECTION

1-MAJOR
1-CAF 6

SERVICE SECTION

1-LT
2-2LT
3-LT

MILITARY PERSONNEL UNIT
1-CAPTAIN
1-CAF 4
3-CAF 2

INAPPROPRIATE UNIT
1-CAPTAIN
1-CAF 4

STATUS UNIT
1-CAPTAIN
1-CAF 4

RECRUITMENT UNIT
1-CAPTAIN
1-CAF 4

TIMEKEEPER UNIT
1-CAPTAIN
1-CAF 4

PAYROLL UNIT
1-CAPTAIN
1-CAF 4

CONTROL UNIT
1-CAPTAIN
1-CAF 4

PROPERTY UNIT
1-CAPTAIN
1-CAPTAIN

CUSTOMS UNIT
1-CAPTAIN
1-CAPTAIN

CIVILIAN UNIT
1-CAPTAIN
1-CAPTAIN

CIVIL SERVICE UNIT
1-CAPTAIN
1-CAPTAIN

CIVIL SERVICE REG.
1-CAPTAIN
1-CAPTAIN

44-CIVIL SERVICE REG.
1-CAPTAIN
1-CAPTAIN

POST EXCHANGE OFFICERS NOT INCLUDED IN SUMMARY

POST EXCHANGE
1-MAJOR
1-CAPTAIN

CIVILIANS

1-COLONEL
1-LT COLONEL
4 MAJORS
7 CAPTAINS
13-1LT LTS.
11-2LT LTS.
37 TOTAL
24 CAF 5
36 CAF 4
49 CAF 3
31 CAF 2
12 CPC 4
20 CPC 3
15 CPC 2
3 UNG
349 TOTAL
September 25, 1941

MEMORANDUM FOR: Executive Officer (Thru O.I.C., Operations Branch)

1. The following data with respect to personnel on duty and space occupied by the SIS, together with estimated requirements for each, is furnished in compliance with instruction contained in Office Memorandum No. 112 dated September 19, 1941:

<table>
<thead>
<tr>
<th></th>
<th>Oct. 1 1941</th>
<th>Jan. 1 1942</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Number of officers on duty in Division</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>b. Number of enlisted men on duty in Division</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>c. Number of civilians on duty in Division</td>
<td>98</td>
<td>116</td>
</tr>
<tr>
<td>d. Number of square feet occupied by records</td>
<td>See j</td>
<td>See j</td>
</tr>
<tr>
<td>e. Number of square feet used for storage</td>
<td>1886</td>
<td>2000</td>
</tr>
<tr>
<td>f. Number of square feet used by mimeograph machines</td>
<td>See j</td>
<td>See j</td>
</tr>
<tr>
<td>g. Number of square feet used by blueprint machines</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>h. Number of square feet used by photostat machines</td>
<td>See j</td>
<td>See j</td>
</tr>
<tr>
<td>i. Number of square feet used by other duplicating machine</td>
<td>See j</td>
<td>See j</td>
</tr>
<tr>
<td>j. Number of square feet for other purposes, exact use to be specified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Records (Secret and Confidential)</td>
<td>815</td>
<td>1000</td>
</tr>
<tr>
<td>Vaults</td>
<td>400</td>
<td>1000</td>
</tr>
<tr>
<td>Mimeograph Machines (Special secret work)</td>
<td>9</td>
<td>18</td>
</tr>
<tr>
<td>Photostat machines (Special secret work)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Other duplicating machines (Special secret work)</td>
<td>1446</td>
<td>1600</td>
</tr>
<tr>
<td></td>
<td>Oct. 1.</td>
<td>Jan. 1</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>Laboratory, Secret ink, etc.</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td>Machine Shop for special equipment</td>
<td>500</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>3672</td>
<td>5620</td>
</tr>
</tbody>
</table>

R. W. Minckler,
Lt. Col., Signal Corps.
MEMORANDUM FOR: Officer in Charge, Military Personnel Division THRU Officer in Charge, Army Communications Branch.

1. The accompanying chart indicates the procurement objective of officer and enlisted personnel to meet expected demands of various signal intelligence agencies. No attempt has been made to indicate grades at this time since it is believed to be of secondary importance and will in many cases depend upon the personal qualifications of personnel provided. About 14% of the officer personnel and 5% of the enlisted have already been procured and trained. The balance of the objective should be reached by July 1, 1943.

2. Detailed explanation of chart:

a. Tabulating machine: The thirteen officers required under this heading should be selected from persons having a wide civilian experience with IBM equipment. The necessary additional training will be provided by the SIS, War Department. Consideration should be given to commissioning certain qualified civilians now engaged in this work in the SIS. The enlisted men for this specialty need have no previous experience. They are being trained at the Cryptographic School, Fort Monmouth, where instruction is now being given. One officer per month, or more, should be obtained.

b. Machine maintenance: It will be the duty of the personnel under this heading to repair, maintain, and distribute all cipher machines issued by the Chief Signal Officer. The officer personnel selected should preferably have had experience in the engineering or servicing of teletype equipment. (Further training will be afforded in this office or by assigning them to a course of instruction conducted by the Navy.) The enlisted personnel should have completed the teletype maintenance course conducted by the Signal Corps School or possess civilian experience equivalent thereto. Three officers and ten enlisted men per month should be obtained effective at once.

c. Laboratory: All officer personnel should be graduate chemists or chemical engineers. Enlisted personnel should be at least student chemists. All training to be conducted by SIS, War Department. One officer and one enlisted man about every two months should be obtained.
d. Cryptologic: Cryptologic personnel includes both cryptographers or code compilers and cryptanalysts or code solvers. There is no suitable civilian occupation from which experienced persons can be drawn, consequently, all must be trained after selection. Possible sources of officer personnel are as follows:

(1) Graduates of Signal Corps Officer Candidate School who have previously attended the Cryptographic School.

(2) Officers now holding commissions who have taken correspondence courses in cryptography.

(3) Certain selected civilian employees now on duty in SIS.

(4) Signal Corps Officers or graduates of Signal Corps Officer Candidates School without previous cryptographic training.

(5) Civilians who have taken correspondence courses in cryptography and who otherwise meet the requirements for commission. Additional training will be provided at the Cryptographic School, Fort Monmouth, and/or in SIS, War Department. All enlisted personnel should be graduates of the Cryptographic School, Fort Monmouth.

About forty officers now and an average of 10 each month should be obtained. Eighty-five enlisted men every six months should be obtained from the Cryptographic School. (Eighty-five men is present capacity.)

e. Linguists: All officer and enlisted personnel under this heading should be selected from persons having sufficient knowledge of one or more of the languages listed below to enable them to speak the language fluently or to translate into English with only occasional reference to a dictionary. No linguistic training is contemplated. Languages should be divided as follows:

<table>
<thead>
<tr>
<th>Language</th>
<th>Officers</th>
<th>Enlisted Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Italian</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>German</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Portuguese</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Spanish</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>French</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Total: 100 132

Personnel should be supplied at a proportionate rate per month.
f. Radio intercept: A course of instruction for radio intercept personnel should be set up at the Signal Corps School. Such a course of instruction should embrace copying high speed transmission, the use of recording equipment, copying the Japanese kana code, international radio procedure, the use of direction finding equipment, and the tactical employment of radio intelligence units. Both officer and enlisted personnel should attend this course of instruction, only qualified radio operators being selected. Upon completion of this special instruction the officer personnel should receive additional training through attachment to radio intelligence units. Personnel should be supplied quarterly or at a proportionate rate per month.

Lt. Col. Signal Corps

Attached:
Chart indicating Procurement obj.
## PERSONNEL PROCUREMENT OBJECTIVE—SIGNAL INTELLIGENCE SERVICE

### OFFICERS

<table>
<thead>
<tr>
<th></th>
<th>Tab. Machine</th>
<th>Machine Maint.</th>
<th>Laboratory</th>
<th>Cryptologic</th>
<th>Linquists</th>
<th>Radio Intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td>War Dept.</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GHQ</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Armies (4)</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Defense Cmds (7)</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Theaters (5)</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>AFCC</td>
<td>3</td>
<td>3</td>
<td></td>
<td>18</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Air Forces (4)</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>School</td>
<td>1</td>
<td>1</td>
<td></td>
<td>10</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Rep. Pool</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>46</td>
<td>32</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total Officers</strong></td>
<td><strong>13</strong></td>
<td><strong>20</strong></td>
<td><strong>8</strong></td>
<td><strong>150</strong></td>
<td><strong>100</strong></td>
<td><strong>67</strong></td>
</tr>
</tbody>
</table>

### ENLISTED MEN

<table>
<thead>
<tr>
<th></th>
<th>Tab. Machine</th>
<th>Machine Maint.</th>
<th>Laboratory</th>
<th>Cryptologic</th>
<th>Linquists</th>
<th>Radio Intercept</th>
</tr>
</thead>
<tbody>
<tr>
<td>War Dept.</td>
<td>36</td>
<td>9</td>
<td>9</td>
<td>36</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>GHQ</td>
<td>8</td>
<td></td>
<td></td>
<td>16</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Armies (4)</td>
<td>14</td>
<td></td>
<td></td>
<td>28</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Defense Cmds (7)</td>
<td>10</td>
<td></td>
<td></td>
<td>20</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Theaters (5)</td>
<td>9</td>
<td></td>
<td></td>
<td>36</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>AFCC</td>
<td>36</td>
<td>8</td>
<td></td>
<td>16</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Air Forces (4)</td>
<td>4</td>
<td></td>
<td></td>
<td>10</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>School</td>
<td>20</td>
<td>10</td>
<td>6</td>
<td>50</td>
<td>50</td>
<td>115</td>
</tr>
<tr>
<td>Rep. Pool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Enlisted Men</strong></td>
<td><strong>92</strong></td>
<td><strong>72</strong></td>
<td><strong>15</strong></td>
<td><strong>212</strong></td>
<td><strong>132</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>
January 29, 1942.

Subject: Personnel Procurement - Signal Intelligence Service.

Memorandum for: Assistant Chief of Staff - O-1.

1. The Signal Intelligence Service of the Office of the Chief Signal Officer has formulated the procurement objective of enlisted personnel necessary to meet the expected demands of the various Signal intelligence agencies which should be reached by July 1, 1943.

2. Included in the personnel requirements are specialists who are not available from Signal Corps units or the Signal Corps Replacement Training Centers. These specialists are:

   a. Laboratory Technicians: The enlisted personnel in this group should be chemists or at least student chemists. A total of 15 men will be needed at the rate of one man approximately every two months.

   b. Linguists: The personnel in this group should be selected from persons having sufficient knowledge of one or more of the languages listed below to enable them to speak the language fluently or to translate into English with only occasional reference to a dictionary. The following division of the various languages is desired.

<table>
<thead>
<tr>
<th>Language</th>
<th>Men Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese</td>
<td>40</td>
</tr>
<tr>
<td>Italian</td>
<td>20</td>
</tr>
<tr>
<td>German</td>
<td>40</td>
</tr>
<tr>
<td>Portuguese</td>
<td>10</td>
</tr>
<tr>
<td>Spanish</td>
<td>12</td>
</tr>
<tr>
<td>French</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>132</strong></td>
</tr>
</tbody>
</table>

This personnel will be needed at the rate of approximately eight men per month.
3. It is accordingly recommended that The Adjutant General be directed to select enlisted men, branch immaterial, who have completed basic training and transfer them to the 2nd Signal Service Company, Munitions Building, Washington, D. C., according to the schedule indicated in paragraph 2a and 2b above.

4. It is further recommended that prior to the transfer of any of the enlisted men so selected, their name, Army serial number, and organization be submitted to the 2nd Signal Service Company to determine whether they are suited for the type of work involved. This procedure is necessary because of the nature of the work to be performed in the Signal intelligence agencies.

For the Chief Signal Officer:

Henry L. P. King,
Colonel, Signal Corps.

COPY FOR: S. I. S.
Signal Intelligence Service

The Assistant Chief of Staff, G-2

1. It is recommended that authority be granted for a further expansion of the Signal Intelligence Service. The personnel and funds required for the purpose are set forth in inclosure number one hereto.

2. The present authorized personnel and funds for the operation of the Signal Intelligence Service were established during peacetime. Since the declaration of war, further expansion is necessary to meet the greatly increased activities of this service.

3. Experience gained in carrying out previous expansions of the Signal Intelligence Service has demonstrated:

a. That qualified personnel to operate the service cannot be obtained directly from civil life because there are few or no civilian pursuits which qualify individuals for cryptanalytic duties. Cryptanalysis is not a civil vocation. It is necessary, therefore, to employ individuals having the basic educational qualifications and train them for each of the highly specialized duties which they are to perform.

b. That the training necessary to qualify individuals for the cryptanalytic specialty requires intensive instruction extending up to twelve months for elementary duties, and from one to two years or longer for advanced and highly duties.

c. That a thorough investigation of all prospective employees in regard to patriotism, loyalty, and personal connections is essential.

4. The personnel such as tabulating machine and punching operators are required to perform work which is an integral part of the increasing duties assigned to the Signal Intelligence Service. It is essential that such personnel be provided at the same time as additional technical specialists.
5. The above considerations, augmented by the present national state of war, dictate that the expansion of the Signal Intelligence Service should be authorized at the earliest practicable date, to permit this service to meet the emergency needs.

6. No additional funds will be required for this expansion prior to July 1, 1945.

Dawson Cluecoid,
Major General,
Chief Signal Officer of the Army.

1 Inclosure —
Incl.#1 - Position &
Cost Estimate indup.
MEMORANDUM FOR: Assistant Chief of Staff, G-2.

SUBJECT: Expansion of Signal Intelligence Service

April 13, 1942

MEMORANDUM FOR: Assistant Chief of Staff, G-2.

SUBJECT: Expansion of Signal Intelligence Service

1. Reference is made to your memorandum dated March 28, 1942, same subject as above. In compliance therewith, steps are being taken to obtain and train additional personnel and to establish additional facilities to provide for the additional service desired at the earliest practicable date.

2. In connection with the instructions contained in the directive, the following recommendations and comments regarding various points are submitted at this time:

a. With reference to paragraph 3, it is recommended that the attempt to operate on Baltic and Belgium material be eliminated at this time due to apparent lack of material and probable lack of value.

b. To meet the immediate needs of a major West Coast intercept station, steps are being taken to acquire from the C.A.A. their large receiving station south of San Francisco. This station is equipped with modern receiving equipment including R.C.A. and Codocode diversity receivers which will give maximum efficiency and reception. Upon acquisition of these facilities, it is intended to use them for the interception of Japanese and other desirable traffic in the Far East. Preliminary steps have been taken for the survey and establishment of an intercept station in Alaska which will also be used for Japanese and other desirable traffic in the Far East. Preliminary steps are being taken toward the establishment of a large station on the East Coast of the United States and these steps are being coordinated with the establishment of the second echelon of the Signal Intelligence Service.

c. With reference to paragraph 9, an immediate study and survey is being made toward the early location of
another echelon of the Signal Intelligence Service outside the city of Washington. It is planned that this echelon will be composed of part of the activities, personnel, and equipment of the Signal Intelligence Service and will be prepared to function as the operating section of the Signal Intelligence Service should it be necessary to move all of the activities from the Munitions Building. The establishment of the building for this echelon will provide space for a considerable portion of the new personnel.

d. With reference to paragraph 13, the employment of existing Radio Intelligence companies has already been coordinated to the extent which will permit their full assistance in this program. Among the directives in assignment of duties of this office, the following are included for the localities indicated:

(1) Mexican Border, Gulf, and southern land frontier traffic is covered as follows:

(a). Axis espionage, foreign governments in and out of Mexico, and Mexican Army radio traffic is covered by 122nd Signal Radio Intelligence Company, Fort Sam Houston, Texas, 124th Radio Intelligence Company, Fort Sam Houston, Texas, 123rd Radio Intelligence Company, Fort Jupiter, Florida, Fort Benning, Georgia, and Fort Story, Virginia, and monitoring station #3, Fort Sam Houston, Texas. In addition, radio intercept detachments and stations in Trinidad and Panama cover espionage traffic in addition to other coverage. The Radio Intelligence companies listed above also cover such other circuits and traffic as is directed by their Army Signal Officers. Signal Officer, Third Army, has recommended no change in the present locations of the Radio Intelligence companies under his jurisdiction.

(b). Seattle, Washington and northwest traffic is covered by the 125th Radio Intelligence Company at Fort Lewis, Washington. Their primary assignment by this office is to cover the Japanese Army traffic; in addition they cover any other circuits and traffic as directed by the Western Defense and Fourth Army commander to meet his local requirements.

(c). The Radio Intelligence Platoon located in Newfoundland has been directed to cover German Army and Air Force traffic.

Eight Radio Intelligence companies are being activated before the end of the year in accordance with the Army Expansion Program. It is not deemed necessary that the activation of any additional companies be recommended at this time.
With reference to paragraph 14, the combining of all signal intelligence activities of the Federal Government under one head is not considered advisable or necessary. The major signal intelligence activities are now carried on by the Army, Navy, and the Coast Guard. In addition thereto, the Federal Bureau of Investigation carries on certain signal intelligence activities relating to the responsibilities with which they may be charged. There is such complete and full collaboration and coordination of effort and activities between the three armed services that they now function in a manner which permits them to receive all the benefits that would be derived from a combined unit plan. It does not appear that anything would be gained by the combining of these activities into one organization.

3. Instructions have been issued to the monitoring stations in San Francisco and Hawaii to copy all Japanese military traffic emanating from the R.C.A. station in Cebu. An initial detachment of six officers and eight enlisted men for the augmentation of the Signal Intelligence Service in Australia has recently been dispatched by air transportation. Some additional personnel will follow in the near future.

For the Chief Signal Officer:

Frank E. Stoner,
Brigadier General, U. S. Army.
November 28, 1942

Memorandum for Requirements Division, S. O. S.
(Attention Col. Pierson)

1. The following represents a considered guess as to the possible expansion of Signal Security installations which might be anticipated during the fiscal year 1944:

<table>
<thead>
<tr>
<th>Eastern Zone</th>
<th>Personnel</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Presently</td>
<td>Increases</td>
<td>Anticipated</td>
</tr>
<tr>
<td>Arlington Hall Station</td>
<td>4700</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Station 1</td>
<td>2400</td>
<td>1200</td>
<td></td>
</tr>
</tbody>
</table>

(Plant only—T of 0 housing for 50 officers and 1150 enlisted men, 4-200 man school type operations buildings, 4 messes, 4 bath units, necessary sanitation and utilities.)

<table>
<thead>
<tr>
<th>Western Zone</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Station 2 (Plant only)</td>
<td>541</td>
<td>720</td>
</tr>
</tbody>
</table>

(T of 0 housing for 720 enlisted men, 2 messes, 2 bath units, etc.)

<table>
<thead>
<tr>
<th>Secondary Operation Unit</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>2500</td>
</tr>
</tbody>
</table>

(Land and Plant)

<table>
<thead>
<tr>
<th>Alaska</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Station</td>
<td>260</td>
<td>None</td>
</tr>
</tbody>
</table>
SECRET

Personnel
Presently    Increases
Authorised  Anticipated

Southern Zone
Secondary Station
None    250
(Land and Plant) Housing for 20 officers, 240 enlisted men, operations building—antenna fields, headquarters building, fire and guard house, storehouse, shop, auxiliary power plant, infirmary and etc.

2. The above has been discussed with Col. J. W. Clarke of 0-2 but by reason of the shortness of time allowed for consideration does not have the concurrence of the Chief Signal Officer.

Frank N. Bullock,
Colonel, Signal Corps.
MEMORANDUM FOR THE CHIEF OF ENGINEERS:

Attention: Major Blair

Subject: Signal Security Installations.

It is desired that the attached list indicating anticipated increases in Signal Security Installations be included in Section 34 of the Army Supply Program with an undetermined starting date.

By Command of Lieutenant General SOMERVUILL:

W. A. WOOD, JR.,
Brigadier General, General Staff Corps,
Director, Requirements Division.

Incld, Memo for Gen. Div.,
To OSSC 11-28-42

DEC 4 1942

OUT

War Department
General of Supply
Requirements Division

COPY TO: CHIEF SIGNAL OFFICER
February 11, 1943.

MEMORANDUM FOR: Colonel Carter W. Clarke,
War Department,
Washington, D. C.

1. In compliance with telephone request of Colonel McCormack, the following general description of the expansion of activities of the Signal Security Service since December 2, 1941 is furnished:

   a. Code Compilation:

      (1) Tremendous expansion of code compilation, production, distribution and accounting therefor, which has been required for supplying secret communication systems to all units of the armed forces on a war time basis.

      (2) A printing plant is now under construction in the Signal Security Service to permit production of all codes and ciphers without recourse to any outside agency.

      (3) A Security section has been established to constantly study the cryptographic security of our own cryptographic systems and related procedures.

   b. Solution:

      (1) The coverage of foreign language government traffic has been increased from six to eighteen. In addition, Central and South American government coverage has been added. In addition to diplomatic traffic previously covered, military attache and military field systems have been added. Approximately 175 different cryptographic systems are now being read.

      (2) Meteorological and foreign language shorthand system coverage has been undertaken.

   c. Traffic Analysis:

      (1) Extensive work has been undertaken to analyze enemy traffic to forecast expected activities, areas of such activities, and enemy battle order therein. This analysis is differentiated from cryptanalytic solution and translation, in that it is a systematic study of traffic flow as to sources, destinations, volume, time and type.
d. Invisible inks and related means of secret communication:

(1) The facilities of this section were expanded to include microphotographic methods which have come to be very important in this field.

g. Engineering and Research:

(1) A section has been established to pursue the development of secret communication devices of mechanical and electrical design, both for cryptographic and cryptanalytic purposes.

f. General:

(1) Three large fixed monitoring stations have been established and are now in service, providing approximately global coverage as regards diplomatic traffic. Certain field radio intelligence companies are providing military traffic.

(2) Training has been greatly expanded by the establishment of training schools for cryptography, cryptanalysis, radio intercept, and traffic analysis.

(3) The personnel expansion of the Signal Security Branch is indicated below:

<table>
<thead>
<tr>
<th></th>
<th>Dec. 7, 1941</th>
<th>Feb. 1, 1943</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>45</td>
<td>280</td>
</tr>
<tr>
<td>Enlisted</td>
<td>28</td>
<td>636</td>
</tr>
<tr>
<td>Civilian</td>
<td>105</td>
<td>1754</td>
</tr>
</tbody>
</table>

Under the latest approved table, the total civilian personnel to be employed by June 30, 1943 is 3663.

For the Chief Signal Officer:

W. Preston Gordyman,
Colonel, Signal Corps.
MEMORANDUM for General Somervell:

Subject: Civilian Personnel - U.S. "Black Chamber"

1. The Signal Intelligence Service, a War Department Agency of the Army Service Forces, operates under directives issued by the Assistant Chief of Staff, G-2. Its primary functions are the breaking of Axis codes and ciphers, constant surveillance for the security of all U.S. Army communications (wire, radio and cable), and the compilation and distribution of all U.S. codes and cipher systems.

2. The basic War Department directive for this agency was approved by the War Department General Staff and transmitted to the Chief Signal Officer in letter from the Adjutant General, AG-3502 (4-15-42) MG-8, subject: "Expansion of the Signal Intelligence Service." This directive included the establishment of large intercept stations at several points, an attack against Axis codes and ciphers and an attack against the codes and ciphers of all major neutral and Allied powers.

3. In order to accomplish the requirements in paragraph 2 above, two requisitions for civilian personnel were submitted by the Chief Signal Officer, one on 24 June 1942 and the other on 6 January 1943. These requisitions totaled 3,663 civilian employees, were approved by the Assistant Chief of Staff, G-2, and given final approval by the Operations Division, S.O.S.S., on 10 July 1942 and 7 January 1943, respectively. General Strong, in passing his approval of the requisition of 6 January, stated "This expansion is more than justified by essential work awaiting this service."

4. The President, on 8 July 1942, issued instructions to the Director of the Budget to discontinue U.S. cryptanalytical units in the offices of the Director of Censorship, the Federal Communications Commission and the Office of Strategic Services, leaving the field of cryptography to be adequately covered by the Army, Navy and F.B.I. Under a directive of the Joint Chiefs of Staff an agreement was reached between the Army, Navy and F.B.I. on the division of work so that duplication would be eliminated in the United States effort.

5. The present allotment of civilians employed in the Army's S.I.S. is 3,663. Under the recent reduction order on civilians employed in the Military District of Washington, this agency would be reduced to 2,461
civilian employees. This action would prohibit the accomplishment of current missions from G-2 and the fulfillment of our existing agreements with the United States Navy, the Federal Bureau of Investigation, and the British.

6. The present strength of this activity is 3,126 civilian employees. Consequently, if the new A.S.F. ceiling is applied it will be necessary to discharge 664. This personnel has been painstakingly trained and if allowed to go will be promptly absorbed by the Navy and F.B.I. with consequent loss in the efficiency of the Army Cryptanalytic Unit. Since the Army Service Forces operates this activity for G-2 it is feared that reduction of it will result in its prompt removal from the Army Service Forces.

7. In view of the importance of the work of this agency, it is recommended that the Signal Intelligence Service be exempted from the above referred to order and that the allotment of civilian personnel to the Signal Corps be increased by 1224 for sub-allotment to this service. If this is not possible then the full concurrence of the Assistant Chief of Staff, G-2, should be obtained before orders on reduction are issued.

H. C. Ingles,
Major General,
Chief Signal Officer.
The Expansion of the Signal Security Agency

1. Authorizations for the expansion of the Signal Security Agency:
   a. Letter of 24 June 1942, authorized:
      2,057 civilians
      336 officers
   b. Letter of 14 September 1942, ASP, authorized:
      77 officers
      2,739 enlisted men (in increments)
   c. Letter of 7 January 1943, ASP, authorized:
      3,673 civilians
   d. Letter of 30 April 1943, ASP, authorized:
      457 officers
   e. Letter of 5 September 1943, approved on 21 December 1943, in accordance with directive of 13 August 1943, for expansion of the Signal Security Agency authorized overall:
      827 officers
      3,489 enlisted personnel
      17 warrant officers
      3,632 civilians
      10,176 Total strength
The Expansion of the Signal Security Agency

1. The present strength of the Signal Security Agency is as follows:
   
a. Arlington Hall Station:
      
      | Officers | Enlisted Personnel | Civilians | Total |
      |----------|--------------------|-----------|-------|
      | 467      | 898                | 3,364     | 4,729 |

   
b. The Second Signal Service Battalion:
      
      | Location                                   | Strength |
      |-------------------------------------------|----------|
      | Within WOE (AHS)                           | 898      |
      | Outside WOE & Overseas                     | 2,366    |
      | Total Strength                             | 3,264    |

2. The great majority of officers assigned to the Signal Security Agency perform no command functions. They serve as translators, research technicians, and cryptanalysts, in which capacities there is a scarcity of highly trained and experienced personnel.

3. The greatest number of the enlisted personnel is located at two large intercept stations.
   
   Vint Hill Farms Station 1,502
   Two Rock Ranch Station 326
   Overseas Stations 228
   Total 2,056

4. The civilian personnel, totaling 3,364, are assigned to the several branches of Arlington Hall Station. It is contemplated that this total, in fulfillment of the authorized expansion, will be increased to 5,553.
   
a. Headquarters Branch. There are 158 civilians assigned to the Information and Liaison and Coordination Sections which prepare the intelligence derived from intercepted production, and maintain liaison with other intelligence agencies. There are 144 civilians assigned to custodial duties, maintaining 635,000 square feet of floor space in the operations buildings and the Headquarters Building for twenty-four hour operations. The remainder of the persons assigned to Headquarters (131) are used in personnel, supply, fiscal and administrative duties.

b. The Training Branch is responsible for all military and civilian training within the Signal Security Agency. Its responsibilities will be increased with the expansion of the Signal Security Agency, because it provides the orientation and specialized training for all personnel prior to assignment to the specific branches.
d. The A - Protective Security Branch, supervises the organization, training, and equipment of all radio countermeasures units. It prepares summaries of intelligence for distribution to theaters of operations and related agencies. It conducts radio deception operations and is responsible for the training of radio countermeasures officers, 99 of whom have been trained to date, which includes the preparation of training literature and the initiation and supervision of training aids, such as records and films. This branch also analyses statistics for the preparation of radio deception plans and prepares schedules of operations and duty messages in its direction of the radio deception operations on the War Department Command net. The overall strength of A Branch is 26 persons.

d. The B - Cryptanalytic Branch. The principal cause for the necessary expansion of the B - Cryptanalytic Branch has been the achievement in the solution of the Japanese Army traffic from which a high grade of intelligence is derived.

(1) Currently, this traffic consists of approximately 6,000 messages per day, or 10,000 pieces of traffic if the duplicates and relays are included. It is important to consider also that Japanese radio and code procedure is quite different from that of any other power. The clerical research necessary to classify and translate the messages before they are attested cryptanalytically will require at least 100 persons.

(2) At present, only 300 of the 6,000 messages are being translated and read. Some of these, for technical reasons, may be unreadable, but the successful solution and translation of a number far in excess of 300 may be expected when sufficient personnel to work on them are added. The new clerical personnel will process more material. Consequently, more cryptanalytic aides will be needed to prepare overlaps, place messages, and further process the material available for solution. It is estimated that 800 cryptanalytic aides will be necessary to keep the branch abreast of current traffic.

(3) To translate and solve the messages thus processed, it is estimated that 500 more Japanese translators will be needed. This increase will entail 100 more clerks in order that the translators may devote their talents to the major task of solution and translation.

(4) If the additional 1,000 civilians are secured, the administrative, supervisory, and security responsibilities will be far greater than at present. Therefore, it is necessary to increase the number of officers assigned to the branch to 32. The majority of them, however, will be assigned to translation as highly skilled linguists, and the remainder will be assigned to administrative and semi-technical operations on a twenty-four hour basis.

(5) The increase in enlisted grades consists solely of IAC personnel. This increase is deemed essential for reasons of security and continuous operations. The IAC's will not replace any civilian employees, but will insure a stability that is essential for the successful achievement of the mission assigned to B Branch. The present strength of this branch is 1894.
e. The C - Cryptographic Branch produces cryptographic systems for the entire United States Army.

(1) There are at present 354 such systems in use. After their production, they have to be distributed and are generally replaced each month by sending a new edition to each of the 2,600 holders. All documents must be registered, and the holders held to strict accountability.

(2) This branch also maintains and repairs all cipher machines. In addition to the training of officers and enlisted personnel in maintenance, C Branch must stock and issue parts for repair, to be distributed wherever the machines may be. There are 2,650 such machines in use at present with American forces throughout the world.

(3) C Branch also wire the rotors for their machines, ten of which are required for each machine, or 26,500 rotors. These are periodically replaced for security and each machine is supplied with four sets of rotors, a total of 106,000 rotors.

(4) All cryptographic systems used by the army are studied constantly to determine the security and detect violations of both cryptographic and transmission security. The traffic of a large number of the United States Army Headquarters is studied to ascertain the possibility of the enemy gaining intelligence through the analysis of this traffic. The overall strength of C Branch is 7,47 persons.

f. The E - Laboratory Branch performs all photographic reproductive work for the Signal Security Agency. In the past three months, it has reproduced a grand total of 55,020 photographs, enumerated as follows:

- 58,000 Enlargements for 8" x 10" photographs from 35 mm film.
- 17,700 Photostatic prints.
- 4,400 Multilith negatives, 11" x 14".
- 29,100 Photographs of pages on 35 mm film.
- 38,400 Photographs of pages on 16 mm film.
- 6,900 Identification photographs.
- 320 Miscellaneous photographs on 4 x 5 film.

0.17 - 0.19 persons are engaged in this work.

g. The E - Communications Branch processes 500,000 intercepted messages a month. The processing requires that each message be handled at least three times, (1) for purposes of identification; (2) in recording and counting the traffic; and (3) in extracting the information necessary to effect the control of the interception of traffic. As a consequence, E Branch handles the equivalent of 1,500,000 messages a month. In addition, E Branch is charged with the responsibility of maintaining and supplying
ten fixed intercept stations with the men and equipment necessary to intercept the volume of traffic required and with developing training programs and supervising the initial operation of seventeen radio intelligence companies.

(1) All the officers assigned to F Branch are technicians in some field of communications, whose services are essential to the successful interception of enemy traffic.

(2) Enlisted personnel is used in drafting and as tele-type operators. The civilians and WAC's in the Message Center at Arlington Hall Station handled more than 1,000,000 code groups in January, with 16.5% of the personnel required to handle 4,000,000 code groups in the War Department Message Center.

(3) The civilians in F Branch have been specifically trained for their jobs, and are used in clerical and cryptanalytic work in processing and analyzing the traffic for control purposes. At present, 300 Japanese Army circuits are covered and a 200% increase in traffic is expected within the next six weeks, judging from recent trends.

The overall strength of F Branch is 402 persons.

h. The F - Development Branch is engaged in experimental work in the development and perfection of cryptanalytic and cryptographic machinery. It is conservatively estimated that work on hand is at present equal to

- 2,676 man-hours for engineering personnel
- 4,523 man-hours for technical personnel
- 8,671 man-hours for laboratory assistants
- 4,100 man-hours for shop personnel.

In order to reduce the backlog of work accumulated through a scarcity of personnel with the necessary engineering and specialized skills, it is considered essential to increase the total personnel in this branch to 110. The total strength of this branch is now 77 persons.

1. The G - Machinery Branch now has a total of 368 machines operated on a twenty-four hour basis by 645 persons.

(1) It is conservatively estimated that the branch is now processing less than fifty percent of the work which could be performed most economically with the aid of tabulating equipment. The increase in the traffic derived from intercept operations and the increased demands for the processing of material by the cryptanalytic and cryptographic branches, will greatly expand the potential services which the Machinery Branch can render.

(2) Tabulating equipment is high on the list of priority machinery, and every effort is being made to utilize it effectively and efficiently through three eight-hour shifts.
At present, the two evening shifts are approximately seventy percent under strength. It is believed that existing machinery would provide for all future needs if sufficient personnel were assigned to man fully all three shifts. In the full use of these machines, the Machinery Branch would adhere strictly to the standards set up by the Control Division of the Army Service Forces in the "Program for More Effective Utilization of Tabulating Equipment."

(3) To achieve these aims, it is estimated that the minimum strength of the branch should be 132.
13 August 1943

SECRET

ATTENTION: Chief Signal Officer.

1. Reference is made to letter, this office, AG 320.2 (18 April 42) MC-3, subject: Expansion of the Signal Intelligence Service.

2. Supplementing this directive and with a view to exploiting to the maximum recent successes in obtaining intelligence from certain enemy military radio traffic, it is desired that you take all necessary steps immediately to intercept, to communicate to your cryptanalytic center and to analyze all available material of this type. It is further desired that the maximum possible quantity of this intercepted and analyzed material be completely processed and that the transmission of the derived intelligence to the Special Branch, Military Intelligence Service, be expedited.

3. To this end it is desired that you procure without delay such additional personnel, equipment and facilities as may be necessary for the accomplishment of this supplementary directive.

By order of the Secretary of War:

[Signature]

J. A. ULIO,
Major General,
The Adjutant General.
Subject: Expansion of the Signal Intelligence Service.

SPSEO 320.2
1st Ind.

WD, ASF, OCSigO, Washington 25, D. C., 16 August 1943.

To: Commanding General, Army Service Forces.

1. Paragraph 3 of the basic communication is construed as authorizing an increase in the personnel strength of certain Signal Intelligence activities in the Military District of Washington if an increase is required to comply with paragraph 2. In view of recent bulk allotments, confirmation is requested.

2. A study as to additional personnel required is now being made, and when complete, a request for the necessary increase in personnel authorization will be made.

For the Chief Signal Officer:

[Signature]

James A. Code, Jr.,
Major General, U. S. Army,
Assistant Chief Signal Officer.
SECRET

2nd Ind.

SFGAS/320.2 (13 Aug 43)


To: Chief Signal Officer, Room 3 C 338 - Pentagon, Washington, D. C.

1. The current Army Service Forces personnel ceilings imposed upon you is the determining factor in controlling the numbers of personnel under your employment.

2. Paragraph 3 of basic letter is not considered as a basis for any automatic or unlimited increase of personnel.

3. Increases in Army Service Forces personnel ceilings made necessary by added responsibilities or heavier loads must be obtained in the usual manner.

By Command of Lieutenant General Somervell:

F. L. HAYDEN
Colonel, General Staff Corps
Acting Director, Military Personnel Division

[Signature]

K. H. McCall
Colonel, G.S.C.
Executive, Military Personnel Division
Office of the Chief Signal Officer

TO
Chief, Army Communications Service
4-D-200

DESCRIPTION OF ATTACHED COMMUNICATION
Expansion of the Signal Intelligence Service

FROM
Assistant Chief Signal Officer
3-E-194

1. The attached correspondence is forwarded to note and return.

2. The Chief Signal Officer desires that any increases for personnel be for a definite purpose and be strongly defended.

By order of the Chief Signal Officer:

James A. Code, Jr.
Major General, U.S. Army
Assistant Chief Signal Officer
3 September 1943

1 incl.
Ltr. to CG, ASF Attn.
CSO, fm TAG, subj.
as ab. dd 13 Aug.
w/ 1st and 2nd Inds.

To Gen. Code,

Under the provisions of 2nd and 2nd in order to comply with basic directive from the SECWAR, Requisition for additional personnel required by SSD, with strong defense therefor, enclosed. It is recommended that this Requisition be processed in the usual manner. For security reasons let us further recommend that this paper be signed yesterday by Gen. Marshall May 9/14/43.
MEMORANDUM for the Record.

Subject: Expansion of the Signal Intelligence Service.

1. In accordance with General Matejka's instructions, this paper was discussed this date with Colonel Jordan, Colonel Collins, Lt. Col. Stack and the undersigned.

2. Colonel Jordan stated that General Somervell was confronted with two conflicting directives from the Deputy Chief of Staff. One such directive limits the ceiling in the Military District of Washington, and the other directive, contained in Tab A herewith, directing General Somervell (Chief Signal Officer) to procure without delay such equipment, personnel, etc., as may be necessary to accomplish a supplementary mission.

3. Colonel Jordan will prepare a paper to the Deputy Chief of Staff asking which of the conflicting directives General Somervell is to consider himself guided by.

4. In the event the Deputy Chief of Staff lifts General Somervell's ceiling in the Military District of Washington, Colonel Jordan indicated that the request for additional personnel contained in this paper would receive favorable action.

Duncan Hodges,
Lt. Col., Signal Corps,
Chief, Military Personnel Branch.

2 Incls.
Transmittal Sheet w/2 incls., Subj as above.
SUBJECT: Expansion of the Signal Intelligence Service

TO: Commanding General, Army Service Forces
ATTENTION: Chief Signal Officer

1. Reference is made to letter, this office, AG 320.2 (18 April 42) MC-B, 18 April 1942, subject: Expansion of the Signal Intelligence Service.

2. Supplementing this directive and with a view to exploiting to the maximum recent successes in obtaining intelligence from certain enemy military radio traffic, it is desired that you take all necessary steps immediately to intercept, to communicate to your cryptanalytic center and to analyze all available material of this type. It is further desired that the maximum possible quantity of this intercepted and analyzed material be completely processed and that the transmission of the derived intelligence to the Special Branch, Military Intelligence Service, be expedited.

3. To this end it is desired that you procure without delay such additional personnel, equipment and facilities as may be necessary for the accomplishment of this supplementary directive.

By order of the Secretary of War:

J. A. ULIO,
Major General,
The Adjutant General.
TOTAL CIVILIAN PERSONNEL REQUIRED FOR THE FISCAL YEAR 1944

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**Note:** Grades eliminated and converted into CPC grades.
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<tr>
<th>Position</th>
<th>No.</th>
<th>Hourly Rate</th>
<th>Total Pay 1</th>
<th>Total Pay 2</th>
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**Engineering Equipment Superintendent**
- 3,200.00

**Electrical Machinists**
- 1,300.00

**Electrical Machinists, Helpers**
- 1,500.00

**Total Personnel Required**
- 5,053

**Present Authorization**
- 3,833

**Additional Personnel Required**
- 2,220

**Total Personnel Required**
- 6,053

**Supt.**

**Supt.**
### MAP PERSONNEL REQUIRED

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<tr>
<th>Officer</th>
<th>1st Officer</th>
<th>2nd Officer</th>
<th>3rd Officer</th>
<th>Specification Serial Number</th>
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137 of the officers required above are in specifications which are trained only at this installation. The necessary background qualifications required in these specification numbers would be sufficient for assignment.

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<tr>
<th>Enlisted</th>
<th>Grades</th>
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<tr>
<td>15 45 75 136 206 138 85</td>
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A proposed Table of Organization of Specification Serial numbers follows:

**Master Sergeant including**
- Personnel NEO (816) (1)
- Men's Sgt. (624) (1)
- Supply Sgt. (628) (1)
- Key Punch Supervisor (272) (4)
- Tabulating Machine Supervisor (400) (4)
- Chief Clerk (052) (2)
- Clerk Record (052) (2)

**Tech. Sgt. including**
- Key Punch Supervisor (272) (8)
- Tabulating Machine Supervisor (400) (17)
- Clerk Record (052) (5)
- Chief Clerk (052) (3)
- Stenographer (823) (5)
- Clerk General (055) (7)
<table>
<thead>
<tr>
<th>Grade</th>
<th>Positions</th>
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<tbody>
<tr>
<td>Staff Sgt. or Tech., 3rd Grade including</td>
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<tr>
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<td>30</td>
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<tr>
<td>Acting First Sgt. (535)</td>
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<td>Supply Clerk (835)</td>
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<td>Cook (660)</td>
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</tr>
<tr>
<td>Personal Clerk (368)</td>
<td>1</td>
</tr>
<tr>
<td>Stenographer (213)</td>
<td>7</td>
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<tr>
<td>Clerk-Typist (405)</td>
<td>12</td>
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<tr>
<td>Clerk General (055)</td>
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<tr>
<td>Baker (017)</td>
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<td>Sergeant or Tech., 4th Grade including</td>
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<td>Cook (660)</td>
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<td>Personal Clerk (368)</td>
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<td>Stenographer (213)</td>
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<tr>
<td>3</td>
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<tr>
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<tr>
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</tr>
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<td>38</td>
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<tr>
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<tr>
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** Converted into ungraded positions.

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<th>CPI-2</th>
<th>CPI-3</th>
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<td>2</td>
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<td>$3,500.00</td>
</tr>
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<td>Janitor, CPI-5</td>
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<tr>
<td>6</td>
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<td>$4,500.00</td>
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<tr>
<td>7</td>
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<td>$5,000.00</td>
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<td>$5,500.00</td>
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Each grade is eliminated and converted into CPI grades.
<table>
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<tr>
<th>Position</th>
<th>Employees</th>
<th>Hours</th>
<th>Rate (per hr.)</th>
<th>Total Pay</th>
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<tbody>
<tr>
<td>Assemblers, Instrument</td>
<td>185</td>
<td>53,221</td>
<td>67</td>
<td>$335,160.30</td>
</tr>
<tr>
<td>Assemblers, Dr. Instrument</td>
<td>15</td>
<td>52,671</td>
<td>67</td>
<td>$335,160.80</td>
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<tr>
<td>Printers, Pressmen Helpers</td>
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<td>Compositors, Band</td>
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<td>Bookbinder, Pressman</td>
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<td>$9,569.28</td>
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<td>3.26</td>
<td>$17,035.20</td>
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<td>$9,732.52</td>
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<tr>
<td>Instrument Shop Foreman</td>
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<tr>
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<tr>
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**Purpose**

- Freeman's Authorization
- Additional Personnel Required
- Total Personnel Required

$6,657,590.00

$2,442,792.00

$9,100,382.00
### TOTAL CIVILIAN PERSONNEL REQUIRED FOR THE FISCAL YEAR 1944

<table>
<thead>
<tr>
<th>Total Number Required</th>
<th>Grade Description</th>
<th>Present Authorization</th>
<th>Additional Personnel Required</th>
<th>Total Salaries</th>
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<tbody>
<tr>
<td>1</td>
<td>Director of Communications Research, P-8 @ $8,000.00</td>
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<tr>
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<td>7</td>
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**Notes:**
- Converted into Assistant Cryptographic Specialists.
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<th>CAT</th>
<th>Grade</th>
<th>Rate</th>
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<th>Subtotal</th>
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</table>

* Converted into ungraded positions.
** Converted into Junior and Senior Tabulating Machine Operators and Junior and Senior Card Punch Operators.
<table>
<thead>
<tr>
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<th>Position</th>
<th>Grade</th>
<th>Number</th>
<th>Base Pay</th>
<th>Hours</th>
<th>Total Pay</th>
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**Note:** Grades eliminated and converted into CPC grades.
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<td>6</td>
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**Summary**

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<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Total Rate (S)</th>
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<tbody>
<tr>
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<tr>
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WAR DEPARTMENT
The Adjutant General's Office
676.3 (10-16-42)
Washington

VRS/brc-2-B-939 Pentagon

October 31, 1943

SUBJECT: Radio Countermeasures.

TO: Commanding General, Army Air Forces;
Chief Signal Officer.

1. The employment of radio countermeasures, including jamming and the practice of radio deception, has become a most important element in the conduct of successful operations. It is considered that the development of equipment and procedures for radio countermeasures should be prosecuted with all despatch.

2. The Signal Corps is charged with radio countermeasures activities other than those conducted in aircraft, which are charged to the Army Air Forces.

3. The Chief Signal Officer is charged with the following radio countermeasures functions:
   a. Preparation of policies, methods, procedures, training circulars and field manuals.
   b. Preparation of recommendations as to coordination and control.
   c. Development of equipment, methods and procedures for protection against enemy radio countermeasures activities.
   d. Recommending the type, number and assignment of units charged with conducting radio countermeasures activities, except Army Air Force units.

4. The Commanding General, Army Air Forces, is charged with recommending the type, number and assignment of Army Air Force units charged with conducting radio countermeasures activities.

5. Reference to radio countermeasures includes radar countermeasures.

6. The subject of radio countermeasures should be treated with the most absolute secrecy.

By order of the Secretary of War:

/s/ H. B. Lewis,
Brigadier General,
Acting The Adjutant General
MEMORANDUM FOR: Chief, Signal Supply Services,
Room 2-E-283 Pentagon Building
Chief, Signal Operating Services,
Room 3-E-346 Pentagon Building
Director, Communication Coordination Div.
Room 4-C-346 Pentagon Building

Subject: Assignment of Responsibilities Within
the Office of the Chief Signal Officer
With Regard to Radio Countermeasures.

March 19, 1943

1. The Director of the Signal Security Division is
the advisor to the Chief Signal Officer on radio and
radar countermeasures activities. He will also conduct
such liaison as the Chief Signal Officer or the Operations
Division may direct.

2. The Signal Security Division will operate di-
rectly under the Chief Signal Officer in matters pertaining
to radio countermeasures and is charged with the
following:

a. Establishment of policies and enunciation of
of doctrines governing the development, production and use
of radio and radar countermeasures.

b. Coordination of the development and quantity
procurement of the recommended types of radio and radar
countermeasures equipment and radio and radar protective
devices.

c. Recommendation of the organization of schools
for training personnel of both the Army Air Forces and
Army Ground Forces in the correct operation and mainten-
ance of radio and radar countermeasures equipment.

d. Recommendation of the organization of units to
which radio and radar countermeasures equipment and radio
and radar protective equipment will be issued.
Memo for: Chief Sig. Off. Ser.
Dir. Com. C. Div.

4. Acting as advisor to special staff sections in the headquarters of task force and theater commanders.

5. Formulation of plans for the manipulation of War Department traffic for purposes of radio deception, based on information and evaluations obtained from the Signal Security Division and Army Communications Division.

6. Establishment of a training program presenting advanced training in radio and radar countermeasures to certain selected officers whose duties or assignment will require them to participate or plan such activities. Also establishment of training program for cadre for RCM units.

7. Acting as the sole agency within the Office of the Chief Signal Officer for distributing radio countermeasures information as received from intelligence agencies.

3. The Army Communications Division will be responsible for executing radio countermeasures involving War Department fixed traffic facilities.

4. The Chief, Signal Operating Services, is charged with training in radio and radar countermeasures under approved policies set up by the Signal Security Division.

5. The Chief, Signal Supply Services, is charged with research, development and procurement of countermeasures equipment in accordance with established procedures.

6. The Military Intelligence Branch of Communications Coordination Division is charged with the extraction and consolidation of countermeasures information and the forwarding of such information to the Signal Security Division only.

7. In order to preserve the necessary security, the necessary correspondence between agencies in the Office of the Chief Signal Officer will be conducted at branch level. The branches intimately concerned with countermeasures will maintain separate classified correspondence registers for correspondence on this subject and will be the only officers of record for such correspondence.

By order of the Chief Signal Officer:

Wm. D. Hamlin,
Colonel, Signal Corps. Executive
Subject: Expansion of Signal Security Agency.

To: Commanding General, Army Service Forces, War Department, Washington 25, D. C.

1. Reference is made to letter dated 24 June 1942 from the Chief Signal Officer to the Commanding General, Army Service Forces, subject, "Expansion of Signal Intelligence Service", file, SPSIS III-L-General (6-24-42), and first indorsement thereto dated 10 July 1942, file, SPSIS 320-2. A further expansion of the Signal Security Agency is now necessitated by a supplementary directive to the Agency contained in a letter dated 13 August 1943, from The Adjutant General to the Commanding General, Army Service Forces (attention Chief Signal Officer), a copy of which is attached as Tab A. The execution of the supplementary directive will require the following increases in personnel in that part of the activity within the Military District of Washington:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Required</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>457</td>
<td>740</td>
<td>283</td>
</tr>
<tr>
<td>Civilians</td>
<td>3683</td>
<td>3953</td>
<td>270</td>
</tr>
<tr>
<td>% Enlisted</td>
<td>691 (67%)</td>
<td>1600</td>
<td>943</td>
</tr>
</tbody>
</table>

A detailed breakdown of the total increase in civilian personnel, according to positions and personal services is shown in Tab B.

2. a. The foregoing increases are those that are deemed ultimately necessary for the proper execution of the supplementary directive. However, because of certain limiting factors, such as necessary increases in cafeteria facilities, and the time required to recruit and train new personnel, especially the great number of Japanese translators involved, it will not be practicable to build up in a single increment the present authorized force of 3683 civilian workers to the total of 3953 shown in paragraph 1 above. It is, therefore, recommended that the required increase be made in two or more increments, of which the first will require the following increases:

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Required</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>457</td>
<td>697</td>
<td>240 (WAAC)</td>
</tr>
<tr>
<td>Civilians</td>
<td>3683</td>
<td>4047</td>
<td>364 (WAAC)</td>
</tr>
<tr>
<td>% Enlisted</td>
<td>900</td>
<td>1600</td>
<td>700 (WAAC)</td>
</tr>
</tbody>
</table>

*This includes the 193 already requested and the 50 ASTFP graduates requested in paragraph 4 below.*
A detailed breakdown of this increment according to military and civilian positions is shown in Tab C.

b. The proposed first increment of 1264 positions consists of 364 civilians, 800 WAC officers and 700 WAC enlisted, with necessary expansion of the additional allotments of military personnel to the Military District of Washington. In the best interests of the service it is highly desirable that a substantial number of WAC personnel be procured in this first increment. The following advantages would be obtained with military personnel:

(1) Provide greater security for Signal Security Agency since there would be a great decrease in turnover.

(2) A more flexible organisation would be established with simplification of transfer of personnel within various Signal Security Agency activities.

(3) Administrative problems such as messin, housing, transportation, and duty assignment would be greatly simplified.

Certain functions cannot be performed by WAC personnel and it is accordingly necessary that civilians be obtained in part.

c. Sufficient space for the erection of the necessary facilities to accommodate the WAC personnel is available at Arlington Hall Station. To expedite the expansion in the event of the approval of this request, consideration should be given to temporarily housing the WAC personnel elsewhere in the vicinity of Arlington Hall Station.

d. Prior to the request for the next increment, graduates of ASTP Japanese language courses will report for assignment to translator duties at Arlington Hall Station. It is estimated that no more than 50 may be expected prior to 1 January 1944. Accordingly, 50 additional enlisted positions should be allotted within the Military District of Washington to cover the requirements of the first increment.

e. Approval of the first increment of 1264 positions, requiring additional funds for the remainder of FY 1944 in the amount of $8,454 (3/4ths of $1,001,272) is desired as expeditiously as possible so that a recruiting program can be initiated by 15 September 1943.

f. It will be noted that changes in civilian grades have been recommended. The personnel required is necessary to fulfill the directive which necessitates an increase in the specialized functions of this Agency. This need could not be anticipated when the last authorization was submitted.
3. In view of the policy of the War Department to use civilians wherever possible and the reported difficulty in securing adequate "AC personnel, an alternative alternative first increment has been set up for civilians entirely as shown in Tab D. This alternative will require the following:

   a. Additional funds for the remainder of the FY 1944 in the amount of $1,432,169.

   b. No additional plant facilities to accommodate this first increment.

4. The next increment composed entirely of civilians is attached, Tab E.

5. a. Attached hereto, Tab F, is a copy of letter dated 31 October 1942 from The Adjutant General to the Commanding General, Army Air Forces and the Chief Signal Officer, in which the Chief Signal Officer is charged with certain radio countermeasures functions. The letter was assigned to the Signal Security Agency by the Chief Signal Officer in a memorandum dated 19 March 1943, copy of which is attached, Tab G.

   b. Until now the civilian personnel conducting the "radio" countermeasures functions assigned to the Signal Security Agency have been diverted from other Signal Security Agency projects. However, new and recently increased duties of the Countermeasures Branch now require an increase in civilian personnel for their proper performance. The specific additional positions are included in Tab G.

6. The additional workers under the second increment contained in Tabs B and E for 24-hour operation at Arlington Hall Station will necessitate one additional cafeteria. Details regarding the latter will be presented when the request for the next increment in personnel is made.

For the Chief Signal Officer:

James A. Code, Jr.,
Major General, U. S. Army,
Assistant Chief Signal Officer.

7 Incls.
Tab A thru G.
<table>
<thead>
<tr>
<th>Unit</th>
<th>Signal Intelligence Service</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By order of the Secretary of War:

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

MALIN CRAIG,
Chief of Staff.
OPERATIONS INSTRUCTIONS NO. 12

Subject: Functional Responsibilities

Attached hereto are organization chart and statement of organization of the Signal Security Agency which are effective 1 March 1944. The statement supersedes all previous statements and directives in conflict therewith.

By order of Colonel Corderman:

S. F. Collins
Colonel, Signal Corps
Assistant Commandant

Incls:
As stated above

Distribution:
Director of Communications Research
Administrative Officer
Chief, A Branch
Chief, B Branch
Chief, C Branch
Chief, D Branch
Chief, E Branch
Chief, F Branch
Chief, G Branch
Director of Training
2nd Signal Service Battalion
Information and Liaison Branch
ORGANIZATION AND FUNCTIONS OF THE SIGNAL SECURITY AGENCY

I. Office of the Commanding Officer

1. The Chief, Signal Security Branch, Army Communications Service, Office of the Chief Signal Officer holds the additional position of Commanding Officer, Signal Security Agency which is a field agency of the Office of the Chief Signal Officer. In this dual role, he directs the operations of the several component field installations in carrying out the mission of the Signal Security Branch as assigned by the Chief Signal Officer. The Commanding Officer, Signal Security Agency also has been assigned by the Chief Signal Officer as the Commanding Officer, Second Signal Service Battalion.

2. The Assistant Commandant, Signal Security Agency, serves as the principal assistant of the Commanding Officer of the Signal Security Agency and represents him during his absence. In a capacity comparable to that of a Chief of Staff, he directs and coordinates the staff activities of the office of the Commanding Officer, and the activities of the Operations Branches for the most effective results. He advises the Commanding Officer of the effectiveness of the organization and evaluates and reports on the results which are obtained. He directs the continuous study of ways and means of improving efficiency of the organization with a view to being prepared for expected contingencies and emergencies, and makes appropriate recommendations to the Commanding Officer.

3. The Assistant to the Assistant Commandant, insures that all instructions issued to the Administrative and Staff Sections, and the Operations Branches are in accord with the policies and plans of the Commanding Officer and directives of higher authority. He assists in the coordination of the activities of the Operations Branches and carries out such studies as may be directed by the Assistant Commandant. He directs appropriate action on correspondence received by the Commanding Officer, Signal Security Agency, and operates a follow-up system to assure prompt action and return of such correspondence.

II. Staff Functions

1. The Director of Communications Research, exercises staff supervision of the activities of the operating branches in communications research and experimental work on cryptanalytic and cryptographic methods and apparatus. He acts as technical adviser to the Commanding Officer and to the operating branches on all cryptanalytic and cryptographic activities.

2. The Director of Training, conducts the training of civilian employees and conducts certain cryptographic and cryptanalytic correspondence courses for selected and qualified personnel. He
exercises staff supervision of training of the Advanced Radio Communications School and coordinates all training within the Signal Security Agency.

III. Administrative Functions

1. The Administrative Officer directs the administrative activities and provides the necessary services and facilities for the operating branches. He directs the selection, investigation, assignment and separation of all civilian personnel. He provides for the classification of positions and the reclassification of civilian personnel and supplies certain services for civilian personnel. He controls the administrative details for the Signal Security Agency and the Advanced Radio Communications School and requests and assigns officer personnel for the Signal Security Agency. He supervises the fiscal operations of the Signal Security Agency, procures and issues necessary supplies and equipment, provides messenger and janitorial service, and maintains the internal security of Arlington Hall Station. He maintains work load studies and prepares summaries of information desired by the Commanding Officer; he also prepares the Annual Report and the History of Signal Security Agency.

2. The Commanding Officer, Second Signal Service Battalion maintains an office of record of all officers and enlisted personnel of the Second Signal Service Battalion. He is responsible for the promotion, transfer and assignment of all personnel of his organization.

IV. Operations

1. A - The Protective Security Branch establishes policies governing the development, production and use of radio and radar countermeasures; establishes requirements for ground countermeasures equipment; coordinates the development of pertinent equipment and trains personnel in its use; formulates plans for purposes of radio deception; distributes information for purposes of training and intelligence; and maintains liaison with other agencies of the War Department, Navy Department, National Defense Research Committee and other interested agencies including allied Governments.

2. B - The Cryptanalytic Branch solves and translates foreign code and cipher messages; makes analysis of foreign traffic for informational purposes; deciphers enemy documents in shorthand and in other forms of obscure writing; solves enemy enciphered radio-telephone communication or other non-Morse transmissions; including crypto-photographic communications; prepares technical reports on cryptanalytic activities for instructional and historical purposes; and operates and maintains specially developed and rapid analytic machinery for cryptanalytic purposes.
3. C - The Cryptographic Branch prepares, reproduces, stores and distributes and is the central accounting office for all cryptographic documents and devices employed by the United States Army; issues instructions for the use of such apparatus; initiates action to standardize new cryptographic equipment; directs the supervision of the security of radio and communications operations within the War Department and related networks; and maintains liaison with the Navy Department and other communications agencies in cryptographic and security matters; acts as Adjutant General in enforcement of cryptographic security regulations.

4. D - The Laboratory Branch maintains laboratory facilities for the invention and preparation of secret inks and related means of invisible or microscopic writing and for the detection of such writing in enemy documents; and operates special photographic and photostatic reproduction facilities for the Signal Security Agency. It provides scientific assistance to other branches.

5. E - The Communications Branch directs intercept operations for obtaining foreign and friendly traffic; analyzes the traffic for purposes of intercept control, supervises the construction of fixed radio intercept stations and directs the development of equipment for such purposes; supplies specialized material for training radio intelligence companies; assists in training radio intelligence companies assigned to the Signal Corps; supplies intercepted traffic to the Cryptanalytic and Cryptographic Branches; operates a communications network for the collection and dissemination of information relating to the work of its branch; and maintains a message center for handling communications of Signal Security Agency and Special Branch, G-2.

6. F - The Development Branch invents and develops all cryptographic and cryptanalytic apparatus employed by the United States Army, including cipher devices, cipher machines, cryptographic teleprinter apparatus, cryptographic speech apparatus, crypto-photo mechanisms and other non-Norse communications which have cryptographic applications; gives technical advice to the other operating branches.

7. G - The Machine Branch operates the IBM machinery of the Signal Security Agency and develops specialized procedures and machinery in connection therewith; it performs the tabulating operations connected with the work of all the branches.

8. The Information and Liaison Branch prepares the information derived from cryptanalysis and traffic analysis and forwards that information to Special Branch, G-2, with which it maintains constant liaison; maintains the Library; accumulates catalogs and provides information of value to the other operating branches in the performance of their functions; registers, accounts for and distributes classified documents except cryptographic publications of the Cryptographic Branch; collates and maintains Order of Battle Information; prepares special reports and studies for the other Branches and for
9. Commanding Officers of subordinate field installations report directly to the Commanding Officer, Signal Security Agency. The various activities of these installations are supervised by the appropriate Branches of the Signal Security Agency.

1 March 1944
SECRET

TRAINING BRANCH
ARLINGTON HALL STATION
SIGNAL SECURITY AGENCY
17 APRIL 1944

DIRECTOR OF TRAINING
1 Lt. Colonel
1 Major
1 Capt
8 Officers
3 Civilians
Total Personnel 17

TRAINING CONTROL SECTION
1 Lt. Colonel
1 Capt
8 Officers
8 Civilians
Total Personnel 23

PERSONNEL CONTROL SECTION
1 Capt
1 Lt.
3 Officers
4 Civilians
Total Personnel 10

CIVILIAN TRAINING SCHOOL
1 Lt. Colonel
1 Capt
8 Officers
17 Civilians
Total Personnel 32

EXTENSION SCHOOL
1 Lt. Colonel
1 Capt
1 Officer
2 Civilians
Total Personnel 10

PROPERTY AND SUPPLY SECTION
1 Lt. Colonel
1 Capt
1 Officer
1 Civilian
Total Personnel 3

RECAPITULATION
PERSONNEL
MILITARY CIVILIAN
1 Lt. Col. 8 Officers
2 Majors 21 Officers
4 Captains 8 Officers
1 Lt. 7 Officers
1 Capt 7 Officers
8 Officers 3 Civilians
Total Personnel 52
SECRET

D
LABORATORY BRANCH
ARLINGTON HALL STATION
SIGNAL SECURITY AGENCY
17 APRIL 1944

CHIEF
1 1st. Colonel
1 Officer
Total Personnel 1

EXECUTIVE OFFICER
1 Major
1 Officer
Total Personnel 1

ADMINISTRATIVE SECTION
1 Captain
1 Officer
Total Personnel 1

RESEARCH SECTION
1 Major
1 Officer
Total Personnel 1

TRAINING SECTION
1 Major
1 Officer
Total Personnel 1

PHOTOGRAPHIC SECTION
1 Captain
1 Officer
Total Personnel 1

RECAPITULATION
PERSONNEL
OFFICER ENLISTED
1 1st. Colonel
1 Enlisted
3 Majors
2 Captains
10

Total Personnel 26

SECRET
### VINT HILL FARMS STATION
### SIGNAL SECURITY AGENCY
### 17 APRIL 1944

#### OVERHEAD

<table>
<thead>
<tr>
<th>School Section A</th>
<th>School Section B</th>
<th>School Section C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Major</td>
<td>1. Major</td>
<td>2. Grade II</td>
</tr>
<tr>
<td>8. Capt.</td>
<td>5. Capt.</td>
<td>3. Grade III</td>
</tr>
<tr>
<td>9. 1st Lt.</td>
<td>9. 1st Lt.</td>
<td>4. Grade IV</td>
</tr>
<tr>
<td>9. 2nd Lt.</td>
<td>9. 2nd Lt.</td>
<td>5. Grade V</td>
</tr>
<tr>
<td>10. 3rd Lt.</td>
<td>10. 3rd Lt.</td>
<td>6. Grade VI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10. Grade VII</td>
</tr>
</tbody>
</table>

**Total Personnel:** 125

#### OPERATIONS

<table>
<thead>
<tr>
<th>School Section B</th>
<th>School Section C</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Officers</td>
<td>10 Officers</td>
</tr>
<tr>
<td>600 Enlisted</td>
<td>600 Enlisted</td>
</tr>
</tbody>
</table>

**Total Personnel:** 300

#### SCHOOL SECTION C

<table>
<thead>
<tr>
<th>Officers assigned from Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grade II</td>
</tr>
<tr>
<td>2. Grade III</td>
</tr>
<tr>
<td>3. Grade IV</td>
</tr>
<tr>
<td>4. Grade V</td>
</tr>
<tr>
<td>5. Grade VI</td>
</tr>
</tbody>
</table>

**Total Personnel:** 25

#### B-V

<table>
<thead>
<tr>
<th>Officers assigned from Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Grade I</td>
</tr>
<tr>
<td>2. Grade II</td>
</tr>
<tr>
<td>3. Grade III</td>
</tr>
<tr>
<td>4. Grade IV</td>
</tr>
<tr>
<td>5. Grade V</td>
</tr>
<tr>
<td>6. Grade VI</td>
</tr>
</tbody>
</table>

**Total Personnel:** 30

### RECAPITULATION

#### PERSONNEL

<table>
<thead>
<tr>
<th>Officer Personnel</th>
<th>Enlisted Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Colonel</td>
<td>30 Grade I</td>
</tr>
<tr>
<td>1 Lt. Col.</td>
<td>30 Grade II</td>
</tr>
<tr>
<td>8 Capt.</td>
<td>118 Grade III</td>
</tr>
<tr>
<td>9 1st Lt.</td>
<td>114 Grade IV</td>
</tr>
<tr>
<td>9 2nd Lt.</td>
<td>114 Grade V</td>
</tr>
<tr>
<td>10 3rd Lt.</td>
<td>113 Grade VI</td>
</tr>
<tr>
<td></td>
<td>113 Grade VII</td>
</tr>
</tbody>
</table>

**Total Officers:** 30
**Total Enlisted:** 393

**Total Personnel:** 1323
TWO ROCK RANCH
SIGNAL SECURITY AGENCY
17 APRIL 1944

OVERHEAD
1 Lt. Col.
1 Maj.
2 Lt. Col.
3 Maj.
7 Captains
8 1st Lts.
8 2nd Lts.
4 Enlisted
43 Enlisted

OPERATIONS
1 Maj.
2 Captains
4 1st Lts.
5 2nd Lts.
8 Enlisted
38 Enlisted

<table>
<thead>
<tr>
<th>OVERHEAD</th>
<th>OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lt. Col.</td>
<td>1 Maj.</td>
</tr>
<tr>
<td>1 Maj.</td>
<td>2 Captains</td>
</tr>
<tr>
<td>2 Lt. Col.</td>
<td>4 1st Lts.</td>
</tr>
<tr>
<td>3 Maj.</td>
<td>5 2nd Lts.</td>
</tr>
<tr>
<td>7 Captains</td>
<td>8 Enlisted</td>
</tr>
<tr>
<td>8 1st Lts.</td>
<td>8 Enlisted</td>
</tr>
<tr>
<td>8 2nd Lts.</td>
<td>38 Enlisted</td>
</tr>
<tr>
<td>4 Enlisted</td>
<td>43 Enlisted</td>
</tr>
</tbody>
</table>

Total Personnel: 541

RECAPITULATION

<table>
<thead>
<tr>
<th>PERSONNEL</th>
<th>OFFICER</th>
<th>ENLISTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Lt. Col.</td>
<td>194 Enlisted</td>
<td></td>
</tr>
<tr>
<td>1 Maj.</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>2 Lt. Col.</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>3 Maj.</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>7 Captains</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>8 1st Lts.</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>8 2nd Lts.</td>
<td>38 Enlisted</td>
<td></td>
</tr>
<tr>
<td>4 Enlisted</td>
<td>43 Enlisted</td>
<td></td>
</tr>
</tbody>
</table>

Total Personnel: 541

APPROVED:
W. PRESTON CORDERMAN
COLONEL, SIGNAL CORPS
COMMANDING
**FORT SHAFTER**  
**TERRITORY OF HAWAII**  
**SIGNAL SECURITY AGENCY**  
**17 APRIL 1944**

---

### OVERHEAD

<table>
<thead>
<tr>
<th>Grade</th>
<th>Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade I</td>
<td>1</td>
</tr>
<tr>
<td>Grade II</td>
<td>3</td>
</tr>
<tr>
<td>Grade III</td>
<td>2</td>
</tr>
<tr>
<td>Grade IV</td>
<td>1</td>
</tr>
<tr>
<td>Grade V</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Personnel: 14

### OPERATIONS

<table>
<thead>
<tr>
<th>Grade</th>
<th>Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade I</td>
<td>1</td>
</tr>
<tr>
<td>Grade II</td>
<td>2</td>
</tr>
<tr>
<td>Grade III</td>
<td>2</td>
</tr>
<tr>
<td>Grade IV</td>
<td>2</td>
</tr>
<tr>
<td>Grade V</td>
<td>2</td>
</tr>
<tr>
<td>Grade VI</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Personnel: 12

---

### RECAPITULATION

#### PERSONNEL

<table>
<thead>
<tr>
<th>OFFICER</th>
<th>ENLISTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade I</td>
<td>Grade II</td>
</tr>
<tr>
<td>Grade III</td>
<td>Grade IV</td>
</tr>
<tr>
<td>Grade V</td>
<td>Grade VI</td>
</tr>
<tr>
<td>Grade VI</td>
<td>Grade VII</td>
</tr>
</tbody>
</table>

Total Officers: 10  
Total Enlisted: 122

---

**SECRET**

APPROVED:  
W. PRESTON CORDERMAN  
COLONEL, SIGNAL CORPS  
COMMANDING

---

**SECRET**
AMCHITKA, ALASKA
SIGNAL SECURITY AGENCY
17 APRIL 1944

OVERHEAD

1 Captains
1 Lt. Col.
1 Col.
1 Maj.
2 Majors
5 Captains
5 Lieuts.
5 First Lieuts.
3 Second Lieuts.
3 First Lieuts.
3 Second Lieuts.
3 Third Lieuts.

OPERATIONS

5 Grade I
3 Grade II
3 Grade III
3 Grade IV
3 Grade V
3 Grade VI
3 Grade VII

RECAPITULATION

OFFICER

1 Captain
1 Lt. Col.
1 Col.
1 Maj.
5 Captains
5 Lieuts.
5 First Lieuts.
3 Second Lieuts.
3 First Lieuts.
3 Second Lieuts.
3 Third Lieuts.

TOTAL OFFICERS: 30

ENLISTED

3 Grade I
3 Grade II
3 Grade III
3 Grade IV
3 Grade V
3 Grade VI
3 Grade VII

TOTAL ENLISTED: 30

TOTAL PERSONNEL: 60

APPROVED:

W. PRESTON CORDERMAN
COLONEL, SIGNAL CORPS
COMMANDING
<table>
<thead>
<tr>
<th>Location</th>
<th>Operations</th>
<th>8 Officers</th>
<th>Total Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASMARA, ERITREA</td>
<td>1 Captain, 2 1st Lt.</td>
<td>9 Grade I, 9 Grade II, 9 Grade III, 9 Grade IV, 9 Grade V, 9 Grade VI, 9 Grade VII</td>
<td>90 Personnel</td>
</tr>
<tr>
<td>FAIRBANKS, ALASKA</td>
<td>1 Lt.</td>
<td>1st Lt.</td>
<td>Grade I, Grade II, Grade III, Grade IV, Grade V, Grade VI, Grade VII</td>
</tr>
<tr>
<td>NEW DELHI, INDIA</td>
<td>1 Captain, 1 1st Lt.</td>
<td>8 Grade I, 8 Grade II, 8 Grade III, 8 Grade IV, 8 Grade V, 8 Grade VI, 8 Grade VII</td>
<td>56 Personnel</td>
</tr>
</tbody>
</table>

APPROVED: W. PRESTON CORDERMAN
COLONEL, SIGNAL CORPS
COMMANDING
MEMORANDUM FOR: Officer in Charge, Army Communications Branch.

SUBJECT: Organization of Signal Intelligence Service.

1. Reference is had to Office Memorandum No. 29, February 20, 1942. As required in paragraph two of cited memorandum there are enclosed herewith: (Incl. 1) a table of organization, S.I.S., and (Incl. 2) job sheets covering the duties of all officers now assigned to S.I.S.

2. Careful consideration has been given to the objective as announced in paragraph 1 a in above cited memorandum. It is the belief of the Officer in Charge, Signal Intelligence Service that the policy of replacing military personnel by civilians should not be applied to this organisation in the manner designated for other divisions of the OCSigO. This belief is predicated upon the following facts:

   a. The Signal Intelligence Service is a field activity. While it is assigned to the Office of the Chief Signal Officer for administrative control, it operates directly with and for the field forces in addition to the War Department. It is at the present time functioning as the Signal Intelligence Service for the commander of the field forces and as such has more the nature of a tactical organisation than of a War Department overhead unit. Consequently, it must primarily be an organisation of distinctly military character not only guided but actually operated by military personnel. Civilians can be employed in many capacities for purely technical or clerical duties. They constitute a permanent War Department and are not subject to transfer to field duty when and where needed as the military personnel.

   b. The Signal Intelligence Service must be so organized as to be able to furnish on short notice a comparatively large group for special field service. Such a demand will undoubtedly be made to serve the commander of a major expeditionary force capable of exerting a major offensive effort in the prosecution of the war. Certain personnel responsibilities and duties of this office would then be transferred to
this field group. Major efforts may be made in more than one theater
necessitating in each case a competent signal intelligence service. The
training of the personnel to form these large special services cannot
be accomplished in a brief period nor can inexperienced personnel be
arbitrarily assigned to such duty. Group training, rather than
individual, is also essential. This training consisting of actual
performance in the work now a responsibility of this office is being
given in the Signal Intelligence Service. It must continue to be given
and additional military personnel must be procured and trained in order
to meet the demand for supplying a highly trained group of adequate
strength for overseas assignment. Signal Intelligence military personnel
for Armies, Air Forces and smaller units are being trained at Signal
Corps School.

c. It is to be noted that many of the officers assigned
to S.I.S. duty are not suitable for other Signal Corps assignments.
They have been selected for this special duty because their education,
experience and aptitude fit them for such assignment. In most cases
these qualifications are of little or no value for other Signal Corps
duty. Consequently, a reduction in S.I.S. military personnel would
not necessarily release such personnel for immediate assignment to
other Signal Corps duties in the field.

d. Because of the highly specialised training and
unquestioned loyalty and integrity required, competent civilians to
replace key military personnel cannot be immediately procured. Many
of the civilians of the S.I.S. have necessarily been called to active
duty and are performing that duty in the S.I.S. Their places cannot
be filled competently by civilians since many of them have had ten
years or more training in cryptanalysis. Their call to active duty,
on the other hand, is mandatory and if they were not retained on S.I.S.
duty they would not be available for the type of service for which they
are particularly trained.

e. Since as stated in paragraph 2 a above, the Signal
Intelligence Service deals directly with the field it must maintain a
twenty-four hour schedule in some of its activities. Military personnel
must be available to provide reliefs for three shifts in some sections
while in others two shifts suffice. Certain duplications in assignment
are therefore unavoidable.

3. Approval of the table of organisation submitted herewith
is recommended. In view of the facts set forth in paragraph 2, it is
believed that the military personnel assigned to S.I.S, instead of being
reduced from present strength should be authorised the total of 90 officers
and 176 enlisted men. This strength of military personnel is the same
as that recommended recently in compliance with instructions.

R. W. Minckler,
Lt. Col, Signal Corps

-2-
May 1, 1942.

MEMORANDUM FOR: Chief Signal Officer THRU Chief, Army Communications Branch.

1. The attached schematic chart marked Draft No. 1 representing a tentative plan of organization for the Signal Intelligence Service (major functional divisions only) is submitted for comment and/or approval.

2. Upon approval of general structure and functional arrangement, detailed tables of organization and individual recommendations covering the allocation, assignment and promotion of officers for key positions will be submitted.

3. The above-mentioned study proceeds from two assumptions:

   (1) That the Signal Intelligence is to undertake an immediate physical expansion of considerable magnitude, and

   (2) that the Signal Intelligence Service shall be reconstructed into a fully integrated permanent establishment.


Attached:
Draft No. 1.

Frank W. Bulllock,
Colonel, Signal Corps.
TENTATIVE ORGANIZATION

Signal Intelligence Service

OIC (Chief)

Liaison Unit

Executive

Supply

Administrative

2d Sig. Serv. Battalion

Gst. OIC.

Training Division (Deputy Chief, S.I.S.)

Operations Division

A/T "Foreign Languages"

* 

B/T "Cryptanalysis"

* 

C/T "Cryptography"

* 

D/T "Security"

* 

E/T "Signal Intelligence"

* 

Gst. OIC.

#Deputy Chief, S.I.S.

*Section Heads to be selected by the Director.

***Composed of the Director, Senior instructors and one consulting representative from Operations Division.

Operating Subsections, until otherwise directed, will continue as now organized.
OSSigO 311.5 - General
1st Line Ind.
SPSAC
(5-1-42)

War Department, OSSigO, Washington, May 5, 1942. To: Deputy Chief Signal Officer.

1. It is recommended that the attached tentative organization of the Signal Intelligence Service be approved.

2. This organization is made necessary by the O-2 directive which requires approximately 100% expansion of our Signal Intelligence Service. It is set up on two functional requirements - training and operations, and will enable the Signal Corps to efficiently handle all of the requirements in the above referred to directive.

[Signature]
Frank E. Stoner,
Brigadier General, U. S. Army.

1 Incl - n/c.

SPSigO 311.6 - General
2nd Line Ind.
SPSAG
(6-1-42)

War Department, Executive Office, OSSigO, Washington, May 6, 1942. To: Chief, Army Communications Branch.

The tentative organization of the Signal Intelligence Service is indicated on the attached chart is approved with the following exceptions:

The head of this service will be known as the Officer in Charge instead of Chief, and the Deputy Chief will be known as the Assistant Officer in Charge rather than Deputy Chief.

By order of the Chief Signal Officer:

[Signature]
W. H. Ingersoll,
Lt. Col., Signal Corps,
Assistant Executive.

1 Incl - n/c.
Designation of Exempted Stations at Arlington Hall, Virginia and Vint Hill Farms, Virginia.

Commanding General, Services of Supply

June 25, 1942

1. Two properties have been obtained to provide locations for the Signal Intelligence Service and its associated activities as follows:

a. Arlington Hall, Virginia, consisting of approximately 100 acres in Arlington County, Virginia, to provide necessary location and space for all operating and training activities of the Signal Intelligence Service now performed under the immediate control of the Chief Signal Officer.

b. Vint Hill Farms, Virginia, consisting of approximately 720 acres in Prince William and Fauquier Counties, Virginia, to provide an area for the construction and operation of an extensive radio installation for radio intelligence purposes. The installation at Vint Hill will be operated by the Second Signal Service Battalion under direct supervision of the Officer in Charge, Signal Intelligence Service.

2. It is requested that the installations at Arlington Hall and Vint Hill Farms be designated as exempted stations under direct control of the Chief Signal Officer, with designations as follows:

Arlington Hall Station, Va.
Vint Hill Farms Station, Va.

James A. Code, Jr.
Brigadier General, U. S. Army, Deputy Chief Signal Officer.

SECRET
I concur:

Frank E. Stoner,
Brigadier General, U. S. A.

James A. Code, Jr.,
Brigadier General, U. S. A.,
Deputy Chief Signal Officer.

Dawson Olmstead,
Major General,
Chief Signal Officer of the Army.

George V. Strong,
Major General,
A. C. of S., G-2.

initials have to be placed on original copy - per General Code.

My Blackburns desire to keep this
AG 322.08 (6-25-42)
MR-M-SP

SUBJECT: Designation of Arlington Hall Station and Vint Hill Farms Station, Virginia.

TO: Chief Signal Officer,

The Signal Intelligence Service installations at Arlington Hall and Vint Hill Farms, Virginia, are designated as Arlington Hall and Vint Hill Farms Stations, Virginia, and classified as exempted stations under your control.

By order of the Secretary of War:

Adjutant General.

Copies furnished:

Commanding Generals,
Army Ground Forces,
Services of Supply,
Eastern Defense Command,
Third Corps Area,
Divisions of the War Department
General Staff,
Publication Branch, A. G. O.
Chief, Statistics Branch,
General Staff,
OFFICE MEMORANDUM NO. 181.

FOR ALL SERVICES, DIVISIONS, AND BRANCHES.

There is hereby formed, as a field agency of the Office of the Chief Signal Officer, the Signal Security Service.

By order of the Chief Signal Officer:

/8/ WM. D. HAMILTON,

Lt. Col., Signal Corps,
Director of Administration.
WAR DEPARTMENT
Headquarters, Services of Supply
Office of the Chief Signal Officer
Washington, D. C.

March 2, 1943.

OFFICE MEMORANDUM NO. 34.

FOR ALL SERVICES, DIVISIONS AND BRANCHES

Subject: Organization, OCSigO:

1. Effective today, there is activated in the Signal Operating Services, OCSigO, the Signal Security Division. The Director, Signal Security Division, will be responsible to the Chief Signal Officer through the Chief, Signal Operating Services.

2. The functions, personnel, military and civilian personnel allotments, equipment, furniture and fixtures, of Signal Security Branch and Protective Security Branch, Army Communications Division, Signal Operating Services, are transferred to Signal Security Division.

3. The Signal Security Branch and Protective Security Branch, Army Communications Division, Signal Operating Services, are abolished.

4. Signal Security Division is assigned the five-letter symbol SPSIS.

5. The five-letter symbol SPSAP, previously assigned to Protective Security Branch, is cancelled.

By order of the Chief Signal Officer:

/S/ WM. D. HAMLIN
Wm. D. Hamlin,
Colonel, Signal Corps,
Executive.
MEMORANDUM NO. 7.

Subject: Reorganization.

To: Branch Chiefs, Arlington Hall Station, Arlington, Va.

The following information concerning the new organization within the Signal Security Division is furnished for the guidance of all concerned:

<table>
<thead>
<tr>
<th>New Designation</th>
<th>Branch Chief</th>
<th>Former Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters Branch</td>
<td>Major J. E. Slack</td>
<td>A. Section</td>
</tr>
<tr>
<td>Protective Security</td>
<td>Major L. C. Sheets</td>
<td>Protective Security Branch</td>
</tr>
<tr>
<td>Branch (A)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryptanalytic Branch</td>
<td>Col. Harold Doud</td>
<td>B Section</td>
</tr>
<tr>
<td>(B)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cryptographic Branch</td>
<td>Col. E. F. Cook</td>
<td>C Section</td>
</tr>
<tr>
<td>(C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory Branch</td>
<td>Lt. Col. A. J. McGrail</td>
<td>D Section</td>
</tr>
<tr>
<td>(D)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications Branch</td>
<td>Major H. McD. Brown</td>
<td>E Section</td>
</tr>
<tr>
<td>(E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development Branch</td>
<td>Major Leo Rosen</td>
<td>F Section</td>
</tr>
<tr>
<td>(F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director of Communica</td>
<td>Mr. W. F. Friedman</td>
<td>Director of Communi-</td>
</tr>
<tr>
<td>tions Research</td>
<td></td>
<td>cations Research</td>
</tr>
<tr>
<td>Acting Director of</td>
<td>Major F. B. Rowlett</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By order of Colonel Gorderman:

James F. Best, Jr.,
1st Lt., Signal Corps,
Adjutant.
OPERATIONS INSTRUCTIONS NO. 16

Subject: Standing Operating Procedure - Organization

1. The Signal Security Agency "Standing Operating Procedure - Organization" is published for the information and guidance of all concerned. It supersedes any previous instructions disseminated within the Signal Security Agency in conflict with the information contained herein.

2. This publication becomes effective upon receipt.

By order of Colonel Corderman:

S. F. Collins
Colonel, Signal Corps
Assistant Commandant
MEMORANDUM NO. 29

SUBJECT: Administrative Procedures, Army Security Agency

TO: All Organizations and Units

1. Announcement is made of the establishment of Army Security Agency, effective 15 September 1945. All personnel and activities of Signal Security Agency and Second Signal Service Battalion are transferred to Army Security Agency effective this date. Headquarters of Army Security Agency is established at Arlington Hall Station.

2. The letterhead for Army Security Agency correspondence is

HEADQUARTERS
ARMY SECURITY AGENCY
Washington 25, D. C.

3. Until printed stationery becomes available the letterhead shown in paragraph 2 above will be typed on plain bond paper.

4. Stationery bearing the letterheads ARMY SERVICE FORCES, OFFICE OF THE CHIEF SIGNAL OFFICER, WASHINGTON 25, D. C., and ARMY SERVICE FORCES, SIGNAL SECURITY AGENCY, WASHINGTON 25, D. C., will not be used for Army Security Agency correspondence. Existing stocks of such stationery will be returned immediately to the Supply Branch for salvage.

5. Correspondence to be signed by the Chief of Army Security Agency will be prepared with the following signature:

W. PRESTON CORDERMAN
Brigadier General, USA
Commanding

6. The command line for Army Security Agency correspondence not signed by the Chief of Army Security Agency will be:

FOR THE CHIEF, ARMY SECURITY AGENCY:

The command line on correspondence formerly signed by authority of the Chief Signal Officer will henceforth read:

FOR THE CHIEF, ARMY SECURITY AGENCY:
7. Existing procedures for the preparation of Second Signal Service Battalion correspondence remain unchanged.

8. The correspondence symbol for Army Security Agency is WDGSS. This symbol replaces SPSIS (and other SPS- symbols) formerly used. New correspondence symbols for the units of Army Security Agency are shown in Inclosure 1.

9. The mailing address for Army Security Agency is:

Chief, Army Security Agency
The Pentagon
Washington 25, D. C.

BY COMMAND OF BRIGADIER GENERAL CORDERMAN:

[Signature]

JAMES E. KERNEY
Captain, Signal Corps
Adjutant

DISTRIBUTION

"E"
CORRESPONDENCE SYMBOLS, ARMY SECURITY AGENCY

<table>
<thead>
<tr>
<th>Office</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief, Army Security Agency</td>
<td>WDGSS-10</td>
</tr>
<tr>
<td>Executive Office, Army Security Agency</td>
<td>WDGSS-11</td>
</tr>
<tr>
<td>Adjutant, Army Security Agency</td>
<td>WDGSS-11</td>
</tr>
<tr>
<td>Chief, Plans and Policies Staff</td>
<td>WDGSS-12</td>
</tr>
<tr>
<td>OIC, Historical Unit</td>
<td>WDGSS-13</td>
</tr>
<tr>
<td>Director of Communications Research</td>
<td>WDGSS-14</td>
</tr>
<tr>
<td>Control Officer</td>
<td>WDGSS-15</td>
</tr>
<tr>
<td>Fiscal Officer</td>
<td>WDGSS-16</td>
</tr>
<tr>
<td>Administrative Officer</td>
<td>WDGSS-20</td>
</tr>
<tr>
<td>Second Signal Service Battalion</td>
<td>WDGSS-60</td>
</tr>
<tr>
<td>Chief, Personnel and Training Division</td>
<td>WDGSS-40</td>
</tr>
<tr>
<td>Chief, Personnel Branch</td>
<td>WDGSS-41</td>
</tr>
<tr>
<td>Chief, Training Branch</td>
<td>WDGSS-42</td>
</tr>
<tr>
<td>Chief, Officer Personnel Section</td>
<td>WDGSS-43</td>
</tr>
<tr>
<td>Chief, Operating Services Division</td>
<td>WDGSS-50</td>
</tr>
<tr>
<td>Chief, Communications Branch</td>
<td>WDGSS-51</td>
</tr>
<tr>
<td>Chief, Laboratory Branch</td>
<td>WDGSS-52</td>
</tr>
<tr>
<td>Chief, Machine Branch</td>
<td>WDGSS-53</td>
</tr>
<tr>
<td>Chief, Supply Branch</td>
<td>WDGSS-54</td>
</tr>
<tr>
<td>Chief, Security Division</td>
<td>WDGSS-80</td>
</tr>
<tr>
<td>Plans and Operations Staff, Security Division</td>
<td>WDGSS-81</td>
</tr>
<tr>
<td>Chief, Cryptographic Material Branch</td>
<td>WDGSS-82</td>
</tr>
<tr>
<td>Chief, Communications Security Branch</td>
<td>WDGSS-83</td>
</tr>
<tr>
<td>Chief, Protective Security Branch</td>
<td>WDGSS-84</td>
</tr>
<tr>
<td>Chief, Equipment Branch</td>
<td>WDGSS-85</td>
</tr>
<tr>
<td>Chief, Intelligence Division</td>
<td>WDGSS-90</td>
</tr>
<tr>
<td>Chief, Language Branch</td>
<td>WDGSS-91</td>
</tr>
<tr>
<td>Chief, Military Cryptanalytic Branch</td>
<td>WDGSS-92</td>
</tr>
<tr>
<td>Chief, General Cryptanalytic Branch</td>
<td>WDGSS-93</td>
</tr>
<tr>
<td>Chief, Traffic Analysis and Control Branch</td>
<td>WDGSS-94</td>
</tr>
<tr>
<td>Chief, Information and Liaison Branch</td>
<td>WDGSS-95</td>
</tr>
</tbody>
</table>
MEMORANDUM No. 31

SUBJECT: Office Symbols

TO: All Organizations and Units

1. The basic office symbol for Army Security Agency is WDGSS. Numerical extensions of this symbol have been allocated to divisions, branches, and separate offices of the Agency as shown in Inclosure 1.

2. When preparing correspondence, the symbol of the originating division, branch, or separate office will be used, regardless of the signing official, unless specific instructions to the contrary are given in individual cases.

   a. Exceptions:

      (1) Correspondence prepared for signature in the military Intelligence Service or in the office of the Assistant Chief of Staff, G-2, will bear the symbol WDGBI.

      (2) On Second Signal Service Battalion correspondence the symbol WDGSS-50 will be used. In those cases in which correspondence for signature of the Battalion Adjutant is prepared in other branches of the Agency, the Office symbol WDGSS-50 will be used, with the numerical symbol of the originating branch appearing thereafter in parentheses; thus: WDGSS-50 (94).

3. Office symbols designating units below branch level will not be used on Army Security Agency correspondence.


BY COMMAND OF BRIGADIER GENERAL CORDEMAN:

JOSEPH W. JOHNSTON
Lt. Colonel, Signal Corps
Adjutant

1 Inc1
List of Office
Symbols, ASA

DISTRIBUTION
"B"
Chief, Army Security Agency
                    WDGSS-10
Executive Office                                            WDGSS-11
Director of Communications Research                       WDGSS-14
Control Office                                             WDGSS-15

Assistant Chief, Staff                                      WDGSS-20
Personnel Section                                          WDGSS-21
Organization and Training Section                         WDGSS-22
Operations Section                                         WDGSS-23
Material Section                                           WDGSS-24
Fiscal Section                                             WDGSS-25
Adjutant, Army Security Agency                             WDGSS-26
Security Control Section                                   WDGSS-27

Assistant Chief, Operations                                 WDGSS-60
Personnel and Training Branch                              WDGSS-61
Supply Branch                                              WDGSS-62

Research and Development Division                          WDGSS-70
Cryptologic Branch                                         WDGSS-71
Ciphony and Ciphax Branch                                  WDGSS-72
Intercept Equipment Branch                                 WDGSS-73
Electronics and Electro-Mechanics Branch                  WDGSS-74
Laboratory Services Branch                                 WDGSS-75

Security Division                                          WDGSS-80
Plans and Operations Staff                                 WDGSS-81
Material Branch                                           WDGSS-82
Methods Branch                                             WDGSS-83
Protective Branch                                         WDGSS-84
Maintenance Branch                                        WDGSS-85

Intelligence Division                                      WDGSS-90
Laboratory Branch                                         WDGSS-91
Machine Branch                                             WDGSS-92
Cryptanalytic Branch                                      WDGSS-93
Intercept Control Branch                                  WDGSS-94
Information, Publication, and Documents Branch WDGSS-95

Arlington Hall Station                                     WDGSS-40

Headquarters, Second Signal Service Battalion              WDGSS-50
The Adjutant General's Office  
Washington  

Subject: Second Signal Service Company.  
The Chief Signal Officer.  

1. Reference is made to your letter (2S-70-1683) dated September 4, 1934.  

2. Effective January 1, 1935, the Second Signal Service Company is constituted as the active list with the personnel at Fort Monroe, Va., being detached on the condition that the company will remain at their present stations in the organization and depart for their new posts at 3 p.m. on the date specified. The details on organization and the listing of personnel as recommended in pars. 4 and 5 and enclosed 2 are issued as part 2 of your letter (2S-70-1683) dated September 6, 1934, are approved. The company will operate on the instructions issued by the Signal Officer.  

3. The following list of Intelligence personnel, with the indicated grades and Specialist ratings, are transferred from the Signal Service Company and detailed to the Second Signal Service Company.  

<table>
<thead>
<tr>
<th>Grade</th>
<th>1-2-3-4-5-6-7 Total</th>
<th>Specialist Rating</th>
</tr>
</thead>
</table>
| Stg Intelligence 1st Lt. | 1 1 2 4 7 | 15
| Stg Intelligence 2nd Lt. | 1 1 4 4 7 |
| Stg Intelligence 3rd Lt. | 1 1 4 4 7 |
| Stg Intelligence 4th Lt. | 1 1 4 4 7 |
| Stg Intelligence 5th Lt. | 1 1 4 4 7 |
| Stg Intelligence 6th Lt. | 1 1 4 4 7 |

4. The number of personnel at the time of transfer will not be less than the lowest figures listed in column 7 of the above table. The personnel existing in other units at the time of transfer will be assigned to the Second Signal Service Company.  

5. Transfer of selected personnel of the Signal Service Company to the Second Signal Service Company will be made on the personnel now employed by the Signal Service Company.  

By order of the Secretary of War.  

[Signature]

[Stamp]  
Adjutant General  
1st Lt., Signal Corps
WAR DEPARTMENT
Office of the Chief Signal Officer

03Sig0 320.3 (Ed Sig. Serv. Co.) Washington 5

September 6, 1939.

SUBJECT: Ed Signal Service Company.

TO: The Adjutant General.

1. The Ed Signal Service Company was constituted on January 1, 1939, with headquarters at Fort Monmouth, New Jersey, and operates under instructions issued by the Chief Signal Officer in accordance with the authority set forth in letter from The Adjutant General of November 16, 1938, file AG 320.2 (9-2-38) Misc. (Ret)-B-N, (Copy herewith).

2. Experience during the elapsed period since the organization of the unit has clearly indicated the urgent desirability from an administrative viewpoint of locating its headquarters in this city. Due to the unique composition of the unit, the nature of its mission and the necessary dispersion of its personnel in detachments stationed in the United States and three overseas garrisons, considerable lost motion and delay is entailed in correspondence and reference of papers to Fort Monmouth concerning personnel and other administrative matters which could be settled on the spot were the headquarters stationed under the immediate supervision of the Chief Signal Officer.

3. It is accordingly recommended that instructions issue changing the station of the headquarters of the Ed Signal Service Company from Fort Monmouth, New Jersey, to Washington, D. C., and that the officer and enlisted men now at Fort Monmouth constitute one of the detachments of the Unit.

4. If the foregoing be approved, it is further recommended that an increase of one officer chargeable to the field activities under the jurisdiction of the Chief Signal Officer be authorized.

For the Chief Signal Officer:

Clyde L. Eastman,
Colonel, Signal Corps
Executive.

1 Inc.

A TRUE COPY
War Department, A. G. O., October 24, 1939 - To Chief Signal Officer.

1. Effective November 1, 1939, the Headquarters, 2d Signal Service Company is changed from Fort Monmouth, N. J., to the Office of the Chief Signal Officer, Washington, D. C. Paragraph 2, letter AG 330.2 (9-2-39), November 15, 1936 is amended accordingly.

2. No increase in the present allotment of grades and ratings to the 2d Signal Service Company is authorized by this change. The transfer of one enlisted man from Fort Monmouth, N. J., to Washington, D. C., as recommended by you, is authorized, chargeable to procurement authorities:

- FD 1437 P 50-0623, P 82-0600 A -0400-0 (Travel of enlisted man and his dependents);
- QM 1580 P 72-0110, P 72-0284, P 72-1375, P 61-0700 A 0525-0 "D" (For packing and crating and shipping baggage).

The exact costs, by purpose numbers under each procurement authority, will be reported to this office upon completion of the movement.

3. An increase of one officer chargeable to the field activities under your jurisdiction is authorized. This action does not increase the number of officers now assigned to the Signal Corps, but authorizes you to order one additional officer to Washington, D. C.

4. The officers authorized for duty in the City of Washington is increased by one.

By order of the Secretary of War:

Adjutant General.

1 Inc1.

n/o
Subject: Replacements - Second Signal Service Company

To: Signal Officer, Fourth Corps Area.

1. Your attention is invited to the following extracts of a letter sent out previously to certain Corps Areas and Departments:

"1. The following policy governing the selection, training, assignment or transfer of enlisted men to the Second Signal Service Company is published for the information and guidance of all concerned.

"2. Selection of personnel. Personnel to be transferred or assigned to the Second Signal Service Company, or to be placed in training for this purpose will be selected from enlisted men:

"a. Of excellent character who are citizens, preferably native born, of the United States.

"b. Who have no close relatives or other ties in foreign countries.

"c. Whose loyalty, integrity, discretion and trustworthiness are unquestionable.

"d. Whose financial status and/or habits are such as to render unlikely their succumbing to any temptations arising from these sources.

"e. Who, preferably, have had at least one enlistment period.

"f. Who have indicated their desire to make the military service their career.

"g. Who have indicated their willingness to spend about 40% of their service on foreign duty assignments."
CONFIDENTIAL

OSSigC 220-33-2nd Sig. Service Co. (7-11-40)

"3. Training of radio personnel. When qualified radio operators cannot be obtained for transfer or assignment, the training of personnel will be restricted to that required to qualify them as such. Training in the radio intelligence section incident to the work of the Second Signal Service Company will only be given at the station to which the Soldier is to be sent for duty in the Second Signal Service Company."

2. There has been some difficulty in obtaining qualified replacements for this organization and it is desired that you discreetly canvass the Signal Corps enlisted personnel in your Corps Area with a view to submitting recommendations for transfer to this organization. In addition to meeting the qualifications listed in Paragraph 2 of the quoted extract above, applicants should be qualified radio operators. In so far as possible, all transfers will be given the same grade and rating they now hold. The rate of promotion in this organization is very rapid. It is believed that this organization offers exceptional possibilities to those who intend to make the Army their career.

By order of the Chief Signal Officer:

Clyde L. Burton,
Colonel, Signal Corps,
Executive.
HEADQUARTERS
SECOND SIGNAL SERVICE COMPANY
WASHINGTON, D. C.

December 5, 1943

<table>
<thead>
<tr>
<th>STATION</th>
<th>AUTHORIZED</th>
<th>ACTUAL</th>
<th>UNDERSTRENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASHINGTON, D. C.</td>
<td>30 (33)</td>
<td>25</td>
<td>5</td>
</tr>
<tr>
<td>Fort Monmouth, N. J.</td>
<td>24 (24.6)</td>
<td>20</td>
<td>4</td>
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<tr>
<td>Fort Sam Houston, Texas</td>
<td>11</td>
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<tr>
<td>Presidio of S.F., California</td>
<td>14 (18)</td>
<td>9</td>
<td>5</td>
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<tr>
<td>Corozal, Panama Canal Zone</td>
<td>22</td>
<td>16</td>
<td>6</td>
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<tr>
<td>Fort Shafter, T. H.</td>
<td>25</td>
<td>20</td>
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<tr>
<td>Fort Wm. McKinley, P. I.</td>
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<td>16</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>150</strong></td>
<td><strong>117</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

* Includes six (6) men on duty at Office of the Chief Signal Officer.
MEMORANDUM FOR: The Office in Charge, Military Personnel Division
THRU Officer in Charge, Army Communications Branch.

SUBJECT: Reorganization of the Second Signal Service Company

1. The Second Signal Service Company was organized to perform radio intercept missions for the War Department. The number of intercept stations has been increased from time to time, and more are contemplated. In addition to intercept duties, it has been found desirable that this organization should encompass all of the Signal Intelligence activities of the War Department for which enlisted personnel must be furnished. At the present time the students and enlisted instructors in the Cryptographic Division, Signal Corps School as well as a detachment on duty in the Signal Intelligence Service, Office of the Chief Signal Officer, are assigned to the Second Signal Service Company as surplus personnel for whom no grades or ratings are available. The organization has long ago exceeded normal company size and it is, therefore, recommended that in accordance with the inclosed Table of Organization, the company be reorganized as the Second Signal Service Battalion.

2. A brief explanation of the proposed organization follows:

   a. Headquarters Detachment (Column 3)
      The Battalion Commander and the Second in Command are assigned to additional duty in the Traffic Section of the War Department, S.I.S. The operating directives to the various intercept detachments should preferably be coordinated by the organization commander, who should have, at the same time, an intimate knowledge of the types of traffic desired and the details of its reception. The third officer in the Headquarters Detachment is assigned to administrative duties solely. Enlisted administrative personnel consist of one Sergeant Major, one Supply Sergeant, and two clerks.

   b. School Detachment (Column 4)
      The school detachment comprises both students and enlisted instructors. The commissioned instructors are members of the staff and faculty, Signal Corps School. It is believed desirable to assign to the Second Signal Service Battalion enlisted students engaged in cryptographic training, since it provides better administrative control of their instruction and later assignment.

CPY
c. The War Department S.I.S. Detachment (Column 5) represents the personnel considered necessary to adequately perform the Signal Intelligence functions of the War Department during war time. A successful prosecution of Signal Intelligence activities requires the concentrated efforts of a large group of highly trained and skilled personnel.

d. G.H.Q., S.I.S. Detachment (Column 6) is not an organic part of the Second Signal Service Battalion. It is attached to the Battalion during such time as the G.H.Q. remains in the vicinity of Washington, D.C. Upon departure of G.H.Q. this detachment reverts to Headquarters, Signal Service, G.H.Q.

e. Fifteen Intercept Detachments (Column 7) have been set up as needed to adequately provide the radio intercept coverage desired by the War Department. Each detachment consists of one officer and twenty-five enlisted men. Experience has shown that a detachment of this size is required to man an intercept station and furnish twenty-four hour service. At the present time eight intercept stations are in operation. Most of them are inadequately manned to perform the intercept service directed. They vary in size from about ten operators, the smaller stations being made so necessarily because of the limited authorized strength of the Second Signal Service Company.

f. Transportation to consist of one truck, pickup for the Headquarters Detachment and for each of the Intercept Detachments has also been provided. This is considered necessary to assure the prompt handling of the intercepted traffic in dispatching it from intercept stations to the War Department or a transmitting agency.

3. The grades and ratings asked for are proportionately large for a battalion strength organization, as is the present allotment of grades and ratings for company strength. The high degree of training and the special qualifications necessary for the various phases of Signal Intelligence duty, upon which this personnel will be engaged, make the setting up of adequate grades and ratings a necessity. Enlisted men who are performing the specialized duties of this organization forfeit their chance for rapid advancement, which would undoubtedly come their way if they were assigned to field organizations. It is therefore unjust to the individual and destructive to morale to, in fact, penalize him because of his assignment to this service organization.
4. Early consideration of this proposal is requested, in view of the conditions existing as mentioned in Paragraph 1 above. If the Second Signal Service Company is not to be enlarged to absorb in proper grade the personnel assigned to the Cryptographic School and to the War Department, S.I.S., other arrangements should be made to enable the promotion of the increasing number of men in seventh grade who are being so assigned.

R. W. Minckler,
Lt. Col., Signal Corps.

1 Incl.-
Table of Organization.
<table>
<thead>
<tr>
<th>Unit</th>
<th>Spec. Ratings</th>
<th>HQ Det.</th>
<th>School Det.</th>
<th>War Det.</th>
<th>HQ SIS Det.</th>
<th>SIS Det.</th>
<th>15% Intercept Detachments</th>
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<tbody>
<tr>
<td>Total commissioned</td>
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<td>Master Sergeant, including</td>
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<td>Chemist, junior (023)</td>
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<td>Cryptographer (087)</td>
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<td>Captain</td>
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<td>First Lieutenant</td>
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<td>Machine repairman (239)</td>
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<td>Total enlisted</td>
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<td>156</td>
<td>176</td>
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<td>Aggregate</td>
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<td>154</td>
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<td>756</td>
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<tr>
<th>O Pistols</th>
<th>0 Trucks &amp; 1 Ton Pickup</th>
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Summary of Specialists' Ratings:

- The serial number symbol shown in parenthesis is an inseparable part of the specialist designation. A number below 500 refers to an occupational qualification analysis and is found in Section I, ABN15-26. A number above 500 refers to a military occupational specialist listed in Section II, ABN15-26.

- Column 6, GKH Signal Intelligence Service, is attached to the 2nd Signal Service Battalion only while GKH remains in Washington, D.C. Upon departure of GKH, this detachment reverts to Headquarters, Signal Service, Washington, D.C. for staffing.

(a) Battalion commander and officer in charge of Traffic Section, WD SIS.

(b) Second in command and assistant to officer in charge, Traffic Section, WD SIS.
PROPOSED TABLE OF ORGANIZATION
2d SIGNAL SERVICE BATTALION
14 February 1942
MEMORANDUM FOR: General Stoner.

1. On February 14, 1942 I proposed through your office a Table of Organization covering the considerable increase for the Second Signal Service Company. Since the proposed strength of the company was an aggregate of 779 men and officers, the type of organization was changed from that of company to that of battalion.

2. The recommendations and Table of Proposed Organization are now in the hands of G-1 according to the Military Personnel Division. It is recommended that approval of the proposed organization be obtained as early as practicable in order that increases in personnel may be made and promotion of qualified enlisted men now on duty in the present company may be accomplished.

3. Should G-1 consider that the higher grades and ratings are out of proportion to the size of the organization, consideration should be given to the fact that a very high type of personnel is required throughout the organization. Many men have been with the organization a considerable length of time and are not available for transfer or absorption in new units men with similar ability and length of service will normally be receiving relative grades and ratings.

4. There is attached a copy of the memorandum which accompanied the proposed Table of Organization. Paragraph 3 of the attached memorandum covers the points mentioned above.

Attached:
Memo. dtd 2-14-42 regarding
Second Sig. Serv. Co.
1. The recommendation for the reorganization of the 2nd Signal Service Company was sent to The Adjutant General by the Military Personnel Division on March 3, 1942. On March 21, 1942, the status of this recommendation was as follows:

The above recommendation was received in the Adjutant General's Office on March 4, 1942, and through error was stamped for file by a clerk and placed in the dead file. This correspondence was located on March 21, 1942, by an officer from the Military Personnel Division, who gave it to Colonel Breckenridge, Miscellaneous Section, The Adjutant General's Office, who started immediate action to get it through The Adjutant General's Office.

Every effort will be made to push this thru the Staff with the minimum of delay, and Military Personnel will keep you advised of the status.

F.R. Kilgore, Mil. Pers., 3-29-42.
WAR DEPARTMENT
The Adjutant General's Office
Washington

AG 320.2 (3-3-42)
MR-III-SP

April 14, 1942

SECRET

1. The 2d Signal Service Company is redesignated the 2d Signal Service Battalion.

2. The present allotment of enlisted grades, Signal, to the 2d Signal Service Company is rescinded, and the following allotment of enlisted grades, Signal, is authorized the 2d Signal Service Battalion, effective immediately:

<table>
<thead>
<tr>
<th></th>
<th>1st Tech</th>
<th>Staff</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
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<tr>
<td></td>
<td>46</td>
<td>49</td>
<td>74</td>
<td>141</td>
<td>16</td>
<td>188</td>
<td>106</td>
</tr>
</tbody>
</table>

By order of the Secretary of War,

[Signature]
Adjutant General.

Copies Furnished:

Commanding Generals, Army Ground Forces, Services of Supply, and Third Corps Area.
Divisions of the War Department General Staff.
Chief, Statistics Branch, G.S.
Publications Division A. G. O.
SUBJECT: Priority of Assignment -- Enlisted Personnel, 2nd Signal Service Battalion

Action

DAR, Sig Tr
2. Dir, Div.
3. E-346,
Pent. Bldg.

1. For necessary action. The Directorate of Planning will render any assistance desired in obtaining higher priorities.

By order of the Chief Signal Officer:

W. T. Guest,
Colonel, SPSCD-2
11/28/42; Br. 79194

2. Colonel Stevenson, G-3, informed Sig. Troops Div., Major Vaughan, this office, that favorable consideration would be given the 2nd Directorate of Planning, Signal Service Battalion in priority 12 or 13 for the number of high grade specialists not to exceed 150.

3. Request that a requisition be submitted for Cryptographers, Cryptanalysts, Teletype Maintenance Men, Radio Repairmen, Radio Operators, and Linguists desired for the remainder of the year. Upon receipt of this requisition, action will be taken to have a priority established which will permit the assignment of personnel indicated above.

N. T. Guest,
Colonel, SPSCD-2
11/28/42; Br. 3049

4. Signal Security Branch

For necessary action in accordance with paragraph 2, action 3.

N. T. Guest,
Colonel, SPSCD-2
11/28/42; Br. 79194
Subject: Priority of assignments: 2nd Signal Service Battalion

<table>
<thead>
<tr>
<th>NUMBER</th>
<th>EACH ACTION</th>
<th>TO</th>
<th>MEMORANDUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Executive</td>
<td>Office</td>
<td>Encountered in obtaining enlisted personnel to fill the urgent requirements of the 2nd Signal Service Battalion. Numerous regulations have not been lifted because of insufficient priorities. The Second Signal Service Battalion is called upon to provide trained personnel for assignment to task forces as well as to provide cadre or detachments of their own organization for service within the continental limits and for foreign service.</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td>A new 7/0 authorizing extensive expansion of the 2nd Signal Service Battalion has been approved. To permit this expansion to be brought up to strength at the earliest possible date, which is essential for accomplishing its mission as directed by the War Department, it is urgently requested that the priority of assignments to this Battalion be increased to the same level as that for task forces.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>The success of the Signal Security Service in accomplishing its directed mission will be directly affected by the promptness of the assignment of personnel to the 2nd Signal Service Battalion.</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td>It is requested that feasible action be expedited.</td>
</tr>
</tbody>
</table>

Over
Memorandum to: Major Slack.

Subject: Proposed Expansion of Second Signal Service Bn.

1. The request for an additional allotment of men was based on expansion of present outlying stations and the establishment of new stations. The increase was approved—to be authorized in increments: 50% immediate, 25% January 1, 1943, and 25% April 1, 1943. All plans went ahead on this basis.

2. The sole basis for existence of the outlying stations of the 2nd Sig. Serv. Bn. being the interception of radio traffic, the following expansion of effective operating personnel was contemplated:

   a. Increase the number of radio intercept operators at Vint Hill from present number of one hundred nine (109) to three hundred forty (340), some of these to come from students already in the Battalion and attending school at Vint Hill.

   b. Increase number of radio intercept operators at Two Rock from present number of seventy-eight (78) to two hundred seventy (270), part of these to come from students already in the Battalion in school at Vint Hill.

   c. Increase the size of station five (5), Ft. Shafter, T. H. from present strength of thirty-seven (37) immediately to seventy-five (75) and ultimately to one hundred twenty (120).

   d. Increase the size of station three (3) from present strength of twenty-seven (27) to fifty (50).

   e. Increase the size of station seven (7), Fairbanks, Alaska from present strength of nineteen (19) to thirty-five (35).

   f. Increase station eight (8) New Delhi, India from present strength of two (2) immediately to twenty-three (23), (this increase of twenty-one (21) already earmarked from school at Vint Hill) and ultimately to thirty-five (35).
g. Establishment of a station in the African Theatre of which immediate requirements would be four (4) officers and fifty (50) enlisted men and ultimately expand to one hundred fifty (150) men.

h. Establishment of at least two (2) more stations of undetermined size to be opened in the near future.

1. All ultimate strengths to be reached by July 1, 1943 or shortly thereafter.

3. Increased requirements for installations noted in 2 above will have to be filled by requisition replacement centers, except where noted that they can be partially filled by students already in school at Vint Hill.

4. The number of students in radio school at Vint Hill is one hundred fifty-one (151).

5. The Cryptographic School at Vint Hill now has four hundred sixty-four (464) enlisted men students of which two hundred sixty-five (265) are assigned.

6. Steps have been taken to cut down on the size of the Cryptographic School. The C. O., Vint Hill Farms Stn. has already requested that the number of men from replacement centers be cut from forty-five (45) per week to twenty (20) per week. The Adjutant, 2nd Sig. Serv. Bn. has coordinated with Personnel Officer, Arlington Hall Station to eliminate, as far as possible, special assignments. This was done on advice from C. O., Vint Hill Farms Stn. and O. I. C., Crypt School, that students from Ft. Monmouth and Camp Crowder were as a general rule, much better than those secured by special assignment.

7. Under existing policy, all men who have been reported available from Crypt School have been transferred to 2nd Sig. Serv. Bn. This policy was satisfactory when first started because a large number of cryptographic personnel was being ordered to overseas duty. During the last four (4) months overseas movement of cryptographic personnel has been at a standstill resulting in a large number of crypt specialists at Vint Hill. Also curtailment number of enlisted men to be used at Arlington Hall has presented a question of advisability of continuing to assign these specialists to 2nd Sig. Serv. Bn.

8. If approved, this additional authorization should be used almost entirely on staffing outlying stations.
9. Disapproval will necessitate the following steps:

a. Discontinue plans for expansion of outlying stations and establishment of any more. This is inadvisable because present set up is inadequate and discontinuance of expansion would seriously interfere with existing directive on interception of enemy traffic.

b. Transfer immediately from 2nd Sig. Serv. Bn. to some other organization all personnel in outlying stations including Vint Hill, who are not directly connected with intercept activities or on overhead activities necessary for maintenance and security. This would include the following:

(1) Students at Crypt School who have been assigned to 2nd Sig. Serv. Bn.

(2) Code Compilation specialists stationed in Seattle, Washington and New Caledonia.

(3) SigAba maintenance men stationed in Hawaii and Alaska.

There is no objection to b (2) and (3). Loss of control of graduates of Crypt School would be detrimental because it removes the source of supply of cryptographic specialists. It is believed decreasing the size of the school would be to more advantage.

c. Discontinue assignment to 2nd Sig. Serv. Bn. of specialists for training in SigAba maintenance. This is desirable because these men are stationed here only for training and are transferred to other organizations soon after training is completed. On February 28, 1943 there were one hundred thirty-nine (139) enlisted men in 2nd Sig. Serv. Bn. who were trained, being trained or awaiting training in SigAba maintenance out of which about one hundred (100) will be transferred from 2nd Sig. Serv. Bn.

d. Designate the Japanese Language School as a special service school and only assign graduates of the school to 2nd Sig. Serv. Bn. Students would be Signal Corps unassigned. This would reduce the number of men not actually engaged in operations. The enlisted strength of this school is sixty-seven (67). An additional advantage would be that these men could be promoted to Technician Fifth Grade, as prescribed in WD AGO Memorandum W350-92-42, without affecting the allotment of the 2nd Sig. Serv. Bn.
10. If steps 9b and c and d were taken the enlisted men concerned would be Signal Corps unassigned and they would not be included in the T/O. This change would also cut the number of assigned men at Arlington Hall to a point below six hundred fifty-seven (657) as was proposed in the tentative T/O submitted for approval.

ARTHUR J. CADERETTE,
1st Lt., Signal Corps,
Adjutant.
Priorities of the Second Signal Service Battalion.

1. Military Personnel Branch, OSSig.

1. The War Department has considered fixed radio intelligence installations sufficiently important to expand the missions and installations of the Second Signal Service Battalion. The establishment of two primary intercept stations in the United States, one at Two Rock Ranch, Petaluma, California, and the other at Vint Hill Farms Station, Harrington, Virginia; and a secondary station at Fairbanks, Alaska, was directed by the Secretary of War to the Chief Signal Officer in Letter No. 3302 (4-13-43)MC-3, subject, "Expansion of the Signal Intelligence Service". The establishment of another station at Amara, Britania, was authorized in memorandum from OPH, WOOS, to the Chief Signal Officer, dated February 26, 1943. It is contemplated other directives will be received in the near future for establishment of additional intercept stations. Due to this wide expansion of War Department intercept activities and installations, it was necessary to fulfill operator requirements very expediently by requisitioning from the Signal Corps schools personnel who were trained as high-speed radio operators (SSN 766). These operators have received sufficient basic radio operator training to permit only specialized training to be carried on at Vint Hill Farms Station and Two Rock schools. The specialized courses commence from two to three months. This program can be undertaken satisfactorily; however, the influx of 766 has been retarded due to the low priorities of the Second Signal Service Battalion.

2. In order to carry out the directives of the War Department, it is requested that the personnel priorities of the Second Signal Service Battalion be changed from the present priority of 3-0 to 13-0.

SECRET

J. B. Slack,
Lt. Col., SPSIS-2,
3 July 43,
Ext. 8129.
MEMORANDUM for Mobilization Division, Army Service Forces.
From 42850, The Pentagon.


Subject: Personnel Procurement Priority for the 2d Signal Service Battalion.

1. The War Department has considered fixed radio intelligence installations sufficiently important to expand the missions and installations of the 2d Signal Service Battalion. Two primary intercept stations in the United States, one at Two Rock Ranch, Petaluma, California, and the other at Vint Hill Farms Station, Harvinton, Virginia, have been established. The Chief Signal Officer was directed by the Secretary of War in letter dated 18 April 1942, file AG 320.2 (18 Apr 42)/HC-3, subject, "Expansion of the Signal Intelligence Service," to establish a secondary station at Fairbanks, Alaska. The establishment of another station at Amara, Brittan, was authorized in memorandum from Operations Division, War Department General Staff, to the Chief Signal Officer, dated 26 February 1943, file, GM 676.3/Brittan (22 Jan 43). It is contemplated that additional directives will be received in the near future for the establishment of additional intercept stations. Due to this wide expansion of the War Department intercept activities and installations, it was necessary to fulfill operator requirements very expeditiously by requisitioning from Signal Corps schools, personnel who were trained as high-speed radio operators (SER-766). However, the influx of the SER-766 personnel has been retarded because of the low personnel priority of the 2d Signal Service Battalion.

2. In order to carry out the directives of the War Department, it is recommended that the personnel priority of the 2d Signal Service Battalion be changed from the present priority of 3-0 to 1-0.

For the Chief Signal Officer:

F. G. Neady,
Brigadier General, U.S. Army,
Director of Operations Division.

COPIES PUBLISHED:
Mil Pers Br - Attn: Major Silverberg
Sig Sec Br - Attn: Lt. Col. Slack

WJH
Ex 73878
MEMORANDUM for Record.

Subject: Personnel Procurement Priority for the Second Signal Service Battalion.

Captain W. J. Haan of the Operations Division, OSSign, was contacted concerning the status of the memorandum dated 13 July 1943, subject: "Personnel Procurement Priority for the Second Signal Service Battalion". Advice was received to the effect that the Army Service Forces had not as yet acted on this recommendation. Captain Haan stated the Signal Security Agency will be notified as soon as definite information is received.

Extension of Captain Haan's 13 73976.

J. E. Hildebreth
Lt. Colonel, Signal Corps, Executive.

Attached:

Memo dated 13 Jul 1943 signed by
Gen. F. J. Hade, re above subject.
OPERATIONS INSTRUCTIONS NO. 25

Subject: Coordination with Headquarters, Second Signal Service Battalion

1. In order to provide one office which will act as the coordinating point for communications between installations of the Second Signal Service Battalion and the Signal Security Agency, the procedures basically illustrated in the attached chart have been developed. As a fundamental plan in accomplishing this coordination, it is considered that the technical control originating within the several offices and divisions of the Signal Security Agency will be given every priority and consideration over administrative details within the Second Signal Service Battalion. The arrangements discussed in the following paragraphs will enable SSA to present completely coordinated instructions or information to installations of the Battalion, and will make available to the installations of the Battalion one point in Signal Security Agency to which communications may be focused.

2. All policy matters will be coordinated with Battalion Headquarters. These are defined as including recommendations or communications concerning:

   a. Changes in existing allocations, control, utilization, assignment and transfer of personnel.

   b. Major changes in facilities of the installations.

   c. Major changes in missions of the installations.

3. For routine changes concerning technical control to be sent by electrical means, which will not affect an established policy, the various components of Signal Security Agency will deal directly with installations of the Battalion. A copy of the action taken will be forwarded promptly to Battalion Headquarters.

(Over)
4. Matters requiring urgent action may be communicated directly to Battalion installations when they affect policy matters, provided that it is impossible or impracticable to contact Battalion Headquarters in time to take effective action. In such cases, a statement of the action taken will be forwarded promptly to Battalion Headquarters.

5. All matters to be handled by correspondence will be routed to Battalion Headquarters for signature and forwarding. Correspondence will be prepared in accordance with pertinent provisions of the SSA Correspondence Manual, 25 May 1944, and as amended. Battalion Headquarters will not change any correspondence originating within the Signal Security Agency without obtaining the concurrence of the office concerned.

6. Communications from installations of the Battalion of a nature defined in paragraphs 3 and 4 will be forwarded directly to the appropriate office in Signal Security Agency without reference to Battalion Headquarters. Message center will provide information copies of incoming messages from Battalion installations to Battalion Headquarters.

7. Correspondence, including reports, from Battalion installations of a nature defined in paragraphs 2 and 5 will be sent to Battalion Headquarters for forwarding to the office concerned or for any necessary coordination or action.

By order of Colonel Cordeman:

[Signature]

H. G. Hayes
Colonel, Signal Corps
Assistant Commandant

Distribution: "A"
COORDINATION OF:
- Directives
- Policy
- Personnel
- Tables of Organization
- Transfers
- Assignments
- Promotions
- Facilities
- Administration
- Reports
- Training
- Intercept and Monitoring

Other units accepting missions from Signal Security Agency (theaters, defense commands, etc.)

For clarity, only three branches and stations are shown. In actual operation, this chart might include all branches and stations but the procedure would remain the same.
General Orders
No. 2
1 May 1945

1. Pursuant to the provisions of War Department Circular No. 345, 23 August 1944, the Meritorious Service Unit Plaque is awarded for maintenance of a high standard of discipline and outstanding devotion to duty to the following named organizations:

- 389th Army Service Forces Band, Fort Monmouth, New Jersey.
- 9423 Technical Service Unit - Signal Corps, War Department Signal Center, Washington, D. C. and the
- 9400 Technical Service Unit - Signal Corps, Signal Corps Publications Agency, Eastern Signal Corps Training Center, Fort Monmouth, New Jersey. (Officers and Enlisted Men on duty with the Signal Corps Publications Agency.)
- 9420 Technical Service Unit - Signal Corps, Second Signal Service Battalion Headquarters and Detachments, Army Communications Service.

2. All military personnel who are assigned to the above organizations are entitled to wear the Meritorious Service Unit Insignia only so long as they remain assigned to that organization.

BY ORDER OF THE CHIEF SIGNAL OFFICER:

Jerry V. Matejka

JERRY V. MATEJKA
Brigadier General, USA
Chief, Personnel and Training Service

OFFICIAL:

David E. Washburn

DAVID E. WASHBURN
Colonel, Signal Corps
Executive
February 24, 1943

MEMORANDUM FOR Colonel Gorderman

THRU: Major Slack

SUBJECT: Relationship of Arlington Hall Station with Headquarters, Military District of Washington

1. The geographic area of the Military District of Washington is removed entirely from the 3rd Service Command. The Commanding General of the Military District of Washington is authorized to communicate directly with War Department agencies in connection with administrative matters. In all those matters normally under the jurisdiction of a Service Commander, the Commanding General of the Military District of Washington deals direct with the headquarters or with the supply and administrative services of the Services of Supply in Washington. Because of their technical nature, certain field installations or the Services of Supply are under the direct command of the chief of the particular service concerned. This is true in the case of Arlington Hall Station. The duties of the Service Commander (The Commanding General of the Military District of Washington) at such installation are limited to certain services, as follows:

   a. Action in domestic emergencies.
   b. Inspection and audit of property accounts.
   c. Supervision of the Army Exchange Service.
   d. Action on boards of officers for damages to buildings.
   e. Reviews of reports of survey.
   f. Fixed signal communication.
   g. Medical service (including hospitalization, evacuation, and sanitation) except at ports of embarkation.
   h. General court-martial jurisdiction.
   i. Ordnance maintenance.
   j. Special services.
   k. Provost marshal investigative functions.
   l. Supervision of Finance Department activities, including disbursing activities.
   m. Internal security (except at ports of embarkation), including plant protection other than for Ordnance Department and Chemical Warfare Service plants handling explosives, incendiary, or irritant chemicals.
   n. Public relations.
   o. Repairs and utilities work.

2. It is necessary for this station to proceed through the Military District of Washington in securing arms and ammunition for our Guard, in securing motor vehicles, in securing materials for the reopening of the swimming pool, in all matters pertaining to the operation of the Post Exchange, in coordinating our air raid precaution set-up, in matters pertaining to our Dispensary and the Medical Officer assigned in attendance.
3. Past experience has proven that the Headquarters of the Military District of Washington are not sufficiently familiar with our operating problems to properly discharge their "housekeeping" functions.

4. It is recommended that steps be taken to acquaint the key personnel of the Headquarters of the Military District of Washington with our physical set-up and the problems existing therein and, in a very general way, to explain the functions of this station. It is further recommended that the Executive Officer of the Headquarters of the Washington Military District, Colonel Isbell, the S-4, Colonel Hawley, and his assistant, Major Southward, be extended an invitation to visit this station in order to see the physical installation that exists.

[Signature]
Joseph W. Johnston
Captain, Signal Corps
Assistant Executive Officer
MEMORANDUM FOR THE DIRECTOR OF PERSONNEL
THE CHIEF SIGNAL OFFICER
THE COMMANDING GENERAL, MILITARY DISTRICT OF WASHINGTON

Subject: Personnel authorizations for and Supervision
of Activities at Arlington Hall

1. The Commanding Officer, Arlington Hall, is responsible to the Commanding General, Military District of Washington, for the activities performed by the personnel listed below and personnel authorizations will be made by the Director of Personnel, aSF, to the Military District of Washington, for the following:

a. Military Personnel

(1) 2505th Service Unit which will include in addition to personnel now assigned, the officer now detailed by the Commanding General, Military District of Washington and 12 enlisted men performing repairs and utilities activities

b. Civilian personnel

(1) All personnel engaged in repairs and utilities activities as set forth in Section 406.06 Army Service Forces Manual, 15 February, 1945, including coal passers, grounds keepers, building and grounds maintenance men and supervisory and clerical personnel required in connection therewith

(2) All personnel engaged in the operation of the post telephone systems, including telephone operators and supervisors

g. The Commanding Officer, Arlington Hall, is responsible to the Commanding General, Military District of Washington, for all activities, in addition to those indicated in paragraphs la and lb, above, which are listed in paragraph 6a(4), AR 170-10, except internal security, and which are conducted or may be conducted in the future at Arlington Hall. Personnel authorizations, except for internal security activities, will be made by the Director of Personnel, aSF, accordingly.

[Signature]

FILE
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2. The Commanding Officer, Arlington Hall, is responsible to The Chief Signal Officer for all activities, including internal security, other than those listed in paragraph 1, above. The Director of Personnel, ASF, will authorize personnel to The Chief Signal Officer for the activities for which the Commanding Officer, Arlington Hall, is responsible to The Chief Signal Officer.

3. The Commanding General, Military District of Washington, will report to the Director of Personnel, ASF, on 15 July, 1943, the personnel strength as of 31 May, 1943, engaged in activities listed in paragraph 1, above, by activity for military and civilian personnel separately on the form prescribed by ASF Circular 40, 11 June, 1943. The Director of Personnel, ASF, will make appropriate adjustments in the total personnel authorizations for the Military District of Washington and The Chief Signal Officer.

By command of Lieutenant General SOMERVILLE:

W. D. STYER,
Major General, U. S. Army
Chief of Staff
MEMORANDUM for the Executive Officer:

The following study with respect to the duties of the Chief Signal Officer, in so far as the preparation of codes and ciphers is concerned, has been made in connection with the question as to whether the present Signal Intelligence Service is a field or departmental agency.

I. Law and Regulations:

1. There is no specific law which places the responsibility for code and cipher work on the Chief Signal Officer. The Act of October 1, 1860 (10:212 U. S. C.), which states in part that, "The Chief Signal Officer shall have charge, under the direction of the Secretary of War, of all military signal duties and of works, papers and devices connected therewith," may be interpreted to include codes and ciphers. Army Regulations, which have the effect of law, definitely place this responsibility on the Chief Signal Officer.

2. Par. 1741, A. R. 1901, charges the Chief Signal Officer, among other duties, "with the preparation, distribution and revision of the War Department Telegraph Code." This same provision is contained in Par. 1528, A. R. 1904; Par. 1574, A. R. 1908; and Par. 1578, A. R. 1910. Par. 1556, A. R. 1913 charged the Chief Signal Officer with the "preparation and revision of the War Department Telegraph Code" and the distribution of the code was charged to The Adjutant General.

3. Par. 2 e, A. R. 105-5, January 14, 1922 and Changes No. 1, October 20, 1923, and Par. 2 e, A. R. 105-5, December 15, 1926, states: "The preparation and revision of the War Department Telegraph code and such other codes and ciphers required by the Army."

4. Par. 2 e, A. R. 105-5, Changes No. 1, May 10, 1929, and Par. 2 e, A. R. 105-5, May 16, 1929, states: "The preparation and revision of all codes and ciphers required by the Army and, in time of war, the interception of enemy radio and wire traffic, the goniometric location of enemy radio stations, the solution of intercepted enemy codes and cipher messages and laboratory arrangements for the employment and detection of secret inks."

5. Changes No. 2, Par. 2 e, A. R. 105-5, July 1, 1937, states: "The preparation, publication, revision, storage, accounting and distribution of all codes and ciphers required by the Army and in time of war the interception of enemy radio and
wire traffic, the goniometric location of enemy radio stations, the solution of intercepted enemy code and cipher messages and laboratory arrangements for the employment and detection of secret inks."

II. Preparation of Codes:

1. The War Department Telegraph Code was published in 1885, 1900, 1905, 1915 and 1919 (file 16452). There is no record of the personnel engaged in the preparation of this code prior to 1901 and it is assumed this work was performed by commissioned officers. The Annual Report of the Chief Signal Officer for the fiscal year ending June 30, 1901, contains the following paragraph:

"The preparation of this code has devolved upon the Chief Signal Officer personally as there was no other available officer having knowledge of telegraphy, combined with a familiarity with military usages, special vocabularies, and the cable regulations and methods of the world."

The following is a chronology of subsequent events:

a. May 22, 1913, Harry B. Kirtland was employed as a code specialist at $200 per month in the Signal Service at large for the purpose of revising the War Department telegraph code of 1906. His services were terminated on December 12, 1914.

b. Mr. John R. Browning, clerk-stenographer, was employed at $1000 per annum in the Signal Service at large to assist Lt. Kirtland.

c. April 11, 1919, the Chief Signal Officer, A. E. F. advised the Chief Signal Officer that the Code Compilation Section of the Signal Corps composed of Major H. R. Barnes, Lt. W. R. Chambers, Lt. Mark J. Ryan, 2nd Lt. Lewis Hale, 2nd Lt. J. J. Gillchrist and three enlisted men, was returning to the United States. "This section has been solely engaged since 1917 in the construction of the various Army codes both for the front line and for headquarters purposes." (W. D. Telegraph Code, 1919 - SIS).

d. November 4, 1919, Order No. 100,760 was placed with Mr. Howard R. Barnes, 3632 Tenth Street, N. W., Washington, D. C., for services in connection with the reconstruction and revision of confidential Staff code and he was paid from Signal Service of the Army appropriation. He completed this work on April 20, 1920 amount paid $1250.

e. October 29, 1920, letter from Director, Military Intelligence Division (4131-607 W. I.) states that as a result of a conference on October 26, 1920, between Major Norman, Colonel...
Curtis and Major Moore, the code and cipher work to be performed by the Signal Corps would consist of the following:

"a. The Signal Corps, under the supervision of the H. I. D. will undertake the compilation of such codes and ciphers as may be required. Before publication, these are to be approved by this Division of the General Staff.

"b. The Signal Corps understands that the solution of codes and ciphers is a function of the Military Intelligence Division but will instruct its officers in the solution of codes as one of the most effective means of impressing them with the importance of proper use of authorized codes and ciphers.

"c. In its search for officers for the construction of codes and ciphers, the Signal Corps will give preference to those skilled in their solution on the ground that such men are best qualified to devise systems difficult of solution and further that with such men the Signal Corps will be in a better position to furnish any aid which may be requested by the Military Intelligence Division.

"d. Codes and ciphers on their completion will, unless otherwise ordered, be turned over to The Adjutant General for distribution." (311.5 Codes Folder No. 1)

f. December 6, 1920, Order No. 101, 166 was placed with William F. Friedman, Easton and Batavia Avenue, Geneva, Illinois, for services in connection with the reconstruction and revision of a confidential staff code and the construction of three field codes at a cost of $1800, to be paid from Signal Service of the Army funds.

g. July 7, 1921, Order No. 101, 567 was placed with William F. Friedman, Easton and Batavia Avenues, Geneva, Illinois, for services in connection with demonstration of codes at Camp Alfred Vail, N. J., at a cost of $45, to be paid from Signal Service of the Army funds.

h. February 28, 1921, Order No. 101, 303 was placed with William F. Friedman, Easton and Batavia Avenues, Geneva, Illinois, for services in connection with the reconstruction and revision of two field codes at a cost of $700 to be paid from Signal Service of the Army funds.

i. July 27, 1921, Order No. 101, 573 was placed with William F. Friedman, 1803 Connecticut Avenue, N. W., Washington, D. C., for services in connection with the preparation of a monograph on military cryptography and for services in connection with the delivery of a course of lectures and conducting a course of instruction in cryptography at Camp Alfred Vail, N. J., at a cost of $450 to be paid from Signal Service of the Army funds.
J. August 1, 1921, Order No. 101, 561 was placed with William F. Friedman, 4303 Connecticut Avenue, N.W., Washington, D.C., for services in connection with the revision and reconstruction of two special editions of the Field Code, five emergency code lists for use in the field and twelve sets of cipher tables to be used in connection with the Staff Code, at a cost of $3350, to be paid from Signal Service of the Army funds.

K. November 16, 1921, recommendation was submitted to the Secretary of War for the employment of William F. Friedman as cryptanalyst, $4500 per annum, Signal Service at large, Washington, D.C., under Section 10 of Rule II Civil Service Rules, which was approved December 7, 1921. (201 Friedman, Wm. F.)

L. October 25, 1923, James J. Skelly, Clerk-typist was employed at $1200 per annum in the Signal Service at large, Washington, D.C. as an assistant to Mr. Friedman. He was discharged for cause May 15, 1924. (201 Skelly, James J.)

M. July 19, 1926, a conference was held in this office with reference to the organization of the Signal Intelligence Service consequent upon taking over the Code and Cipher Solution and Secret Ink Services from N. I. D., at which Lt. Col. Hemphill, Major Blair Major Albright and Mr. Friedman were present. Among other things it was concluded that the primary function of the Signal Intelligence Service was to be one of training personnel for war. It was also determined that to accomplish this mission, the organization of the following services was involved:

- Code and Cipher Compilation
- Code and Cipher Solution
- Intercept and Geoniometric
- Secret Ink (231.2 Cryptanalyst)

N. December 16, 1926, funds in the sum of $66,666.66 were allotted by the Assistant Chief of Staff, C-2 to the Chief Signal Officer P/4 MID-36 P 9203. 1110-0 for payment of personnel engaged on code and cipher work.

O. January 4, 1928, the Secretary of War was requested by the Chief Signal Officer to authorize the employment of four junior cryptanalysts at $2600 per annum and one assistant cryptographer clerk at $1200 in the Signal Service at large, Washington, D.C., for the preparation of all codes and ciphers required by the Army in accordance with the Act No. 1, A.R. 105-5. "A study of the new responsibilities and duties of the Chief Signal Officer as a consequence of these additional duties has led to the conclusion that there must be established during peace time a small section of code and cipher specialists who will be under constant training in these sciences, who will keep abreast of progress in this field and will in the initial phases of any emergency be prepared to serve as the nucleus for building up the much larger
organization required for successful functioning of Signal Intelligence sections in war time." (231.2 Cryptanalyst)

p. January 13, 1930, above recommendation was approved by the Secretary of War.

q. March 1, 1930, Mrs. Louise N. Nelson (nee Jewirk) was appointed as Assistant Cryptographic Clerk $1620, Signal Service at large. (201 Nelson, Louise N.)

r. March 26, 1930, authority to employ one cryptanalyst at $312.50 per month, Signal Service at large, Washington, D. C., was requested of the Secretary of War. "The transfer of the responsibility for the solution of enemy codes and ciphers in time of war from the Military Intelligence Division, General Staff, to the Chief Signal Officer included the taking over of practically all of the records and files of the Military Intelligence Division. These records and files constitute an extremely important source of information that is of great value to the War Department as a whole and will be of inestimable value to the Signal Intelligence Service now being established to carry out the assigned mission of organization and training for efficient operation in time of war. The only man known to the Signal Corps and to the Military Intelligence Division who is qualified to do the work described in this letter is Mr. Herbert O. Yardley." (231.2 Cryptanalyst).

s. March 29, 1930, approved by the Secretary of War.

t. April 1, 1930, F. B. Rowlett appointed junior cryptanalyst at $2000 per annum, Signal Service at large, Washington, D. C.

u. April 10, 1930, A. Sinkov appointed junior cryptanalyst at $2000 per annum, Signal Service at large, Washington, D. C.

v. April 21, 1930, S. Kullback appointed junior cryptanalyst at $2000 per annum, Signal Service at large, Washington, D. C.

w. April 22, 1930, letter from The Adjutant General, file Ag 311.5 (4-14-30) Pub.
2. a. Army Regulations 105-5, as amended by Changes No. 1, places the responsibility for the following activities upon the Chief Signal Officer:

(1) Code and cipher compilation.
(2) Code and cipher solution.
(3) Interception of enemy radio and wire traffic.
(4) Location of enemy radio transmitting stations by radiometric means.
(5) Laboratory arrangements for the employment of detection of secret inks.

b. The fundamental reason for placing the responsibility for these duties upon the Chief Signal Officer is that all correlated duties in connection with secret communication may be assigned to one operating agency for efficiency of operation. To serve this purpose these duties will be organized by the Chief Signal Officer into a single coordinated service.

c. Within the discretion of the Chief Signal Officer it is suggested that 'Signal Intelligence Service' be the designation for this coordinated service.

3. The general mission of this service is, as for all other military services, the proper organization and development in peace time to the end that the service may be prepared to operate at maximum efficiency in war.

4. The specific missions of this service may be stated as follows:

a. The preparation and revision of all codes, ciphers and other means of secret communication to be employed by the Army in time of peace and war.

Note: In this connection it should be noted that in accordance with current Army Regulations this office is responsible for the printing of codes and ciphers, for their distribution in accordance with distribution tables prepared by the Chief Signal Officer, and for their accounting.

X. April 30, 1930, authority requested to employ one cryptanalyst aide at $1800 per annum, Signal Service at large, Washington, D. C. in connection with compilation of codes, preparation of ciphers and cipher tables, research on new cryptographic methods and machinery, research in the solution of codes and ciphers as required by Changes No. 1, A.R. 105-5, (231.2 Cryptanalyst)

Y. May 1, 1930, above recommendation approved by Secretary of War.
Z. May 13, 1930, J. B. Hurt appointed cryptanalyst aid at $1800 per annum, Signal Service at Large, Washington, D. C.

aa. June 1, 1930, H. O. Yardley declined appointment as cryptanalyst $312.50 per month.

bb. September 2, 1930, Lawrence Clark was appointed assistant cryptanalyst clerk $1620 per annum, Signal Service at Large, Washington, D. C.

c. August 23, 1935, authority of Secretary of War requested for employment of one assistant cryptographic clerk $1620 per annum, Signal Service at Large, to replace Lawrence Clark. Approved August 26, 1935.

d. September 28, 1935, authority of Secretary of War requested for temporary employment of one senior typist $1440, Signal Intelligence Section, Signal Service at Large. Approved October 1, 1935. (231.3 Clerks)

e. January 1, 1936, H. F. Beare appointed assistant cryptographic clerk $1620, Signal Service at Large.


gg. June 3, 1936, Authority of Secretary of War requested to employ 1 junior cryptanalyst $2000, Signal Service at Large, to replace A. Sinkov, transferred to Panama. Approved June 5, 1936. (231.2 Cryptanalyst)

hh. July 1, 1936, R. O. Ferber appointed junior cryptanalyst $2000 per annum Signal Service at Large, Washington, D.C.

ii. August 17, 1936, S. S. Snyder appointed assistant cryptographic clerk $1620 per annum, Signal Service at Large.

jj. February 1, 1937, authority to employ 1 junior cryptanalyst $2000 per annum, Signal Service at large, Washington, D. C. requested, to replace S. Kullback, transferred to Hawaii.

kk. February 3, 1937, above approved by Secretary of War.

ll. April 16, 1937, M. A. Jones appointed junior cryptanalyst $2000 per annum, Signal Service at Large, Washington, D. C.

mm. February 23, 1938, authority of Secretary of War requested for employment of 1 assistant cryptographic clerk $1620 per annum, Signal Service at Large. Approved February 21, 1938. (231.3 Clerks)
nn. March 1, 1938, authority of Secretary of War requested for temporary employment of 1 junior stenographer $1440 per annum, Signal Intelligence Service, Signal Service, Signal Service at Large. Approved March 2, 1938. (231.3 Clerks)

oo. March 28, 1938, P. S. Cote appointed assistant research analyst $2600 per annum, Signal Service at Large, Washington, D. C.

pp. July 1, 1938, Mary L. Prather appointed assistant cryptographic clerk $1620 per annum, Signal Service at Large, Washington, D. C.

qq. July 1, 1938, Margaret A. Will appointed assistant cryptographic clerk $1620 per annum, Signal Service at Large, Washington, D. C.

III. Budget Estimates:

1. Provision has been made in the Budget Estimates under Project 1, Signal Service of the Army, for personnel for the Signal Intelligence Service as follows:

1922 to 1924

- 1 Cryptanalyst $4500

1925 to 1928

- 1 Cryptanalyst $5200

1929 to 1931

- 1 Cryptanalyst $5600

1932:

- 1 Cryptanalyst $5600
- 3 Jr. Cryptanalysts $2100 6300
- 1 Cryptanalyst Aide 1800
- 2 Asst. Cryptographic Clerks $1680 3360

Total: $17060

1933 - Project 1:

- 1 Cryptanalyst $5600
- 3 Jr. Cryptanalysts $2100 6300
- 1 Cryptanalyst Aide 2000
- 2 Asst. Cryptographic Clerks $1620 3240

Total: $17140
<table>
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<th>Year</th>
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<th>Positions</th>
<th>Total</th>
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<tr>
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<td>Project 1</td>
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<td>1939</td>
<td>Project 1</td>
<td>1 Cryptanalyst $5600</td>
<td>12</td>
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</table>
1940 - Project 24:

"Required for Signal Intelligence Service. The expanding activities of this service and additional personnel requested in Project 1 are the basis for the increase in equipment and supplies - $1320.

Office equipment, including labor saving devices
Office supplies

\[ \begin{array}{c}
\text{\$1100} \\
\text{\$220} \\
\text{\$1320}
\end{array} \]

IV. Status:

1. The Comptroller General has defined departmental and field work as follows:

"The executive departments of the Government execute the laws which Congress enacts through the instrumentalities sometimes designated 'departmental' and 'field' establishments. What is known as the 'field force' is engaged directly or indirectly in locally executing the laws, while the 'departmental force' is engaged in general supervisory and administrative direction and control of the various field forces. (21 Comp. Dec. 700, 711)

"If officers or employees are directly under the direction, supervision, and control of a Government department, establishment, or bureau reporting directly to the head thereof, their status is that of departmental officers or employees; but if they are directly under the direction, supervision, and control of a local field organization, reporting directly to the head thereof, their status is that of a field officer or employee." (27 Comp. Dec. 122)

"What is known as a 'field' force is engaged, directly or indirectly, in executing the laws locally, while a 'departmental' force is engaged in general supervisory and administrative direction and control of the various field forces. Various general laws, such as the postal laws, must be executed in the District of Columbia as well as elsewhere. A force engaged exclusively in the local execution of such laws in the District of Columbia is a field force as much so as a like force in any other section of the country. It is only in this sense that the term 'field' force may properly be applied to the District." (5 Comp. Gen. 272.273)

"A force engaged exclusively in departmental work, that is, in general supervision and administrative direction and control of the various field forces, even though with headquarters outside of the District of Columbia - in this instance at Baltimore - is nevertheless a departmental force as much so
as the departmental force in the District of Columbia." (17 Comp. Gen 565)

2. It will be noted from the above quoted decisions of the Comptroller General that classification as to departmental or field work is based solely upon the character of the work involved, i.e., if the work consists of the supervision and administrative direction and control of the various field forces it is departmental work; if the work is performed locally and is other than the supervision and administrative direction and control of the various field forces, it is field work. It is immaterial where the work is performed. Departmental work may be performed outside the District of Columbia, while field work may be performed inside the District of Columbia, and in buildings housing departmental activities, as, for example, the Finance Officer, U. S. Army.

3. The present Signal Intelligence Service was organized as a "single coordinated service" in accordance with the decision contained in letter from the Adjutant General dated April 22, 1930, file AG 315.5 Pub. (4-14-30), paragraph 2 above. As stated in the above mentioned directive, its general mission is "as for all other military services, (underlining supplied) the proper organization and development in peace time to the end that the service may be prepared to operate at maximum efficiency in war", while its specific mission is "the preparation and revision of all codes, ciphers and other means of secret communication to be employed by the Army in time of peace and war".

4. The Signal Intelligence Service as at present organized is composed of 1 commissioned officer and 14 civilian employees and is operating under authority of paragraph 2 A. R. 105-5. Under this Army Regulation the Chief Signal Officer has immediate charge of "the preparation, publication, revision, storage, accounting and distribution of all codes and ciphers required by the Army". There are no specific directions as to how these duties are to be accomplished. That is a decision which is left to the Chief Signal Officer as an administrative officer of the Government, appointed by the President and confirmed by the Senate. In the discretion of the Chief Signal Officer, the duties assigned may be performed in his immediate office or by a field agency already organized or one created for the purpose.

5. As early as 1913 it was determined that the work of revising the War Department Telegraph Code was a function of the Signal Corps of the Army, rather than that of the Office of the Chief Signal Officer, and accordingly a code specialist and a clerk were employed for this work and paid from the Signal Corps of the Army Funds. (Par. 2 a and b above)

6. In 1917 the compilation of all codes required by the Army was a function of commissioned officers of the Army (Par. 2a above) and not those assigned to the office.
7. In 1919, 1920, and 1921 the preparation of codes required by the Army was considered as a Signal Corps function rather than a function of the Office of the Chief Signal Officer and such codes as were required were procured under contract for which Signal Corps funds were used.

8. Since 1921, all personnel engaged in the compilation of codes and since 1930, when the cipher work of the Military Intelligence Division was assigned to the Signal Corps, all personnel engaged in that work have been paid from Signal Corps funds and from those allotted from the appropriation, "Contingencies, Military Intelligence Division", a military organization.

9. The primary mission of the Signal Intelligence Service is to train personnel in code and cipher work for service with the Army in time of war (par. 11 in above) and the preparation and revision of all codes, ciphers and other means of secret communication to be employed by the Army in time of peace and war. (Par. 11 in above) There is nothing in the files to indicate that the training of personnel for service in the Army is a function of the Office of the Chief Signal Officer. This is a military or field function and not a departmental function. Likewise, the preparation of the codes is under the supervision of the Military Intelligence Division, War Department General Staff (A. R. 10-15), which is not a bureau or office of the War Department listed in A. R. 310-10.

10. It is apparent, therefore, that the Signal Intelligence Service is a field activity for the following reasons:

a. For over a quarter of a century the preparation of codes and ciphers has been a function of personnel paid from field appropriations, i.e. Pay of the Army, Signal Service of the Army, and Contingencies, Military Intelligence Division.

b. The employment of field service personnel on these duties has been authorized by the Secretary of War, the Director, Military Intelligence Division, and the Director of the Bureau of the Budget, and expenditures therefore have been passed without question by the General Accounting Office.

c. The Signal Intelligence Service is not a departmental organization as it is not engaged in "general supervisory and administrative direction and control of the various field forces" since there is no other field force engaged on similar or comparable duties.

11. Since it is obvious that the personnel engaged on code and cipher work constitutes a field force, as defined by
the Comptroller General, and have been paid from Signal Corps appropriations since 1913, it is logical to conclude that all of the services, supplies and equipment required by this field force to perform their duties should be provided from field appropriations, for which adequate provision should be made in the Signal Corps budget estimates.

Edward Barnett,
Civilian Assistant
MEMORANDUM FOR THE EXECUTIVE OFFICER:

I have just received from New Cumberland Depot, the attached records, which I intend to use in connection with my study of the status of the S.I.S. These files are I believe fairly representative of those pertaining to the supply of the S.I.S and have been selected at random from data available in this office.

P 36328 dated January 6, 1933 calls for 1 mimeograph machine and accessories for the Signal Intelligence Section approved by the OIC, S & I Section and Purchase Section.

P 36449 dated January 27, 1933, calls for supplies for the mimeograph machine which were likewise purchased in Washington, D. C.

R 3 dated December 28, 1933, calls for miscellaneous supplies and equipment for the Signal Intelligence Section all items (30) of which except 4 were procured by the Purchase Section; the 4 items referred to were procured by NY PD.

R 76 dated January 15, 1934, calls for mimeograph supplies and pencil leads for the Signal Intelligence Section which were procured by the Purchase Section.

R 2856 dated April 12, 1935, calls for 2 card index cabinets for the Signal Intelligence Section which were procured by the Purchase Section in Washington.

R 1711 dated September 27, 1934, calls for 4 cabinets and 4 extra shelves for the safe storage of codes which were procured by the Purchase Section.

It will be noted that the requisitions state specifically that this equipment and supplies are for the Signal Intelligence Service and that no question was raised by the Supply Division as to the legality of their purchase even though the Signal Intelligence Service was considered a part of the War Plans and Training Division. Since the Signal Intelligence Service is now a field activity separate and distinct from the War Plans & Training Division, it would appear that there is less doubt as to the legality of supplying this service from Signal Corps funds as there was in previous years.

Edward Barnett
Civilian Assistant
MEMORANDUM FOR THE CHIEF OF STAFF:

Subject: Signal Intelligence Service Activities.

1. Discussion

1. The Military Intelligence Service should be charged with the preparation, publication, revision, storage, accounting for, and distribution of all codes and ciphers required by the Army and, in time of war, the interception of enemy radio and wire traffic, the location of enemy radio stations, the solution of intercepted enemy code and cipher messages and laboratory arrangements for the employment and detection of secret inks.

2. a. Under the present policy and conforming to Par. 2e Army Regulations 105-5, the aforementioned duties are charged to the Signal Corps.

b. Under the provisions of Par 9a and 9b, Army Regulations 10-15, the Military Intelligence Division is charged with those duties of the War Department General Staff which relate to the collection, evaluation and dissemination of military information, including plans and policies and the supervision of all activities connected with Military Attaches and observers, intelligence personnel of all units, codes and ciphers and translations. Under the provisions of Par. 4b, Circular 59, War Department, Washington, March 2, 1942, the Military Intelligence Service under the direction of the Assistant Chief of Staff, Military Intelligence Division, War Department, General Staff, is charged with operating and administering the service of the collection, compilation and dissemination of military intelligence.

3. Early in World War I, the interception and solution of enemy messages in code and cipher became one of the most important sources of military intelligence. In our forces, 0-2 was charged with the solution of enemy codes and ciphers, while the technical functions of intercepting enemy communications and compiling codes and ciphers
for the use of the Army were performed by the Signal Corps. This rather arbitrary division of closely related functions continued until 1929.

4. On April 4, 1929, a memorandum for the Chief of Staff pointed out the anomalous character of such a division of functions and recommended that it be eliminated by vesting in the Signal Corps the duty of solving codes and ciphers, in addition to its existing duties of goniometric and intercept work and code compilation. The memorandum rested upon the proposition that the normal functions of a General Staff do not include such an operating function, a proposition that precluded the performance of such duties by G-2, since G-2 then had no operating unit which could discharge the necessary peace-time functions of training and maintaining an adequate personnel to do this type of work. The recommendation was adopted by Changes No. 1, AR 105-5, dated May 10, 1929, and the Signal Intelligence Service was established to perform the duties thereby imposed upon the Signal Corps.

5. The duties thus charged to the Signal Corps were intelligence duties, and their only relation to the work of the Signal Corps lay in the fact that some of them had to be performed by personnel with technical training similar to that possessed by Signal Corps personnel. Every enemy telecommunication or dispatch is raw material of military intelligence. Every process involved in obtaining the communication—the location of the transmitting station, the interception of the message, the solution of the code or cipher, the translation of the message and its evaluation as military intelligence—and, subsequently, the presentation of the information resulting is an activity concerned with the collection, evaluation and dissemination of military intelligence—duties which are specifically given to G-2. While the 1929 reorganization may have been best calculated to meet practical necessities in peacetime, it had the effect of vesting in a service organization, composed of personnel untrained in military intelligence, control over the collection of one of the most important types of military intelligence. The result was a division of function, authority and responsibility between the two agencies.
6. The inherent weakness of the division of responsibility between S.I.S. and G-2 did not become apparent in time of peace, because the chief problem was one of training personnel, and that could be done by the Signal Corps under general policy supervision by G-2 through the ordinary channels. With the outbreak of hostilities, however, the need for speedy and efficient functioning of all intelligence gathering activities under a unified control has become vital. This was recognized in the establishment of a Military Intelligence Service to serve under the Assistant Chief of Staff, G-2, for the operation of all activities connected with collection, evaluation and dissemination of military intelligence.

7. It is believed that the present division of responsibility between M.I.S. and S.I.S. prevents either of them from doing an adequate intelligence job in relation to enemy communications. It is impossible in time of war to intercept more than a small fraction of all enemy communications, or to solve in time for use more than a fraction of the frequently changing codes and ciphers, or to decode the whole body of intercepted material, or to reduce most of the decoded communications to accurate English translations. Hence the war-time conduct of intercept and decoding activities requires many decisions every day upon questions of intelligence policy, and there must be no delay in the making of those decisions.

8. Decisions must be made as to the hours of activity and the direction of activity of intercept stations, upon the enemy codes and ciphers to which cryptanalytical activities shall be directed, upon the priority to be given to different classes and sources of material in decoding and translation, and upon the assignment of personnel and use of equipment. These daily decisions have at least as determinative an effect upon the amount and character of the intelligence produced as have the broad policies laid down by G-2. All such daily decisions are "intelligence" decisions, which should be made by persons having intelligence training and a background of knowledge of other types of available intelligence.
9. The present division of responsibility makes it difficult for G-2 either to make those decisions or to guide them effectively. The general policies enunciated by G-2, through channels, cannot in the nature of things furnish an adequate guide to the S.I.S. in making daily decisions under ever-changing circumstances. Nor, however good the liaison, can the officers of the S.I.S. be kept informed of intelligence available from other intelligence sources, a knowledge of which is essential to a proper appraisal of the relative value of material of different classes and from different sources. Nor does the ability of G-2 to change plans and policies from time to time furnish an adequate mechanism for shifting the direction of work speedily, according to the changing needs of information. The result is that G-2 has only a limited control over this extremely important source of intelligence, while the officers of the Signal Corps are burdened with decisions requiring training and information that they do not have.

10. Consolidation of S.I.S. in M.I.S. would facilitate collaboration between the personnel of the two agencies, and thus aid the efforts of both. Since translations are often only approximate, and various meanings are frequently possible, such collaboration can materially assist those charged with the analysis and evaluation of material produced by S.I.S. Similarly, collaboration may be very useful to cryptanalytic personnel, because the availability of abundant collateral intelligence material is often of great value in breaking down enemy codes. Under the present organizational structure, the two groups of personnel are inevitably insulated from each other to some extent, no matter how close the degree of liaison and cooperation, and the maintenance of liaison in itself involves a certain loss of time and effort.

11. The duties of code and cipher compilation, code and cipher solution, goniometric location of enemy stations and interception of enemy communications, and secret ink detection and production are all closely related in purpose, in technique and in practical operation. With regard to code and cipher compilation, it is virtually axiomatic that the only persons competent to produce adequately secure codes and ciphers are those who have ability and experience in the analysis of codes and
ciphers, and these two duties should therefore not be separated.

12. The Military Intelligence Service already performs the duty of training military attaches, observers and other personnel in cryptographic methods and security, and it, not the Signal Corps, specifies the degree of cryptographic security which these officers and agents require. Likewise, it is the agency which is most likely to discover that a cryptographic system has been compromised. O-2 is charged with safeguarding military information, and insuring the use of secure cryptographic systems is a most important phase of that duty. For all these reasons the Military Intelligence Service should be charged with the duty of preparing codes and ciphers and putting them in use.

13. Geodetic location and intercept activities furnish the raw material for cryptanalytic activities and are closely related to other intelligence work. Detection of secret inks is purely an intelligence function and inks produced for our forces will be used by M.I.S. operatives. All of these duties should, therefore, be treated as a unit and charged to the Military Intelligence Service.

II. Action Recommended

The Secretary of War directs:

1. That the Military Intelligence Service be charged with the duties pertaining to the preparation, publication, revision, storage, accounting for and distribution of all codes and ciphers required by the Army, and in time of war the interception of enemy radio and wire traffic, the location of enemy radio stations, and solution of intercepted enemy code and cipher messages and laboratory arrangements for the employment and detection of secret inks.

2. That Army Regulations 105-5, Par. 105-5, specifying in part the duties of the Chief Signal Officer be rescinded.

3. That all Field Manuals, regulations and existing instruction material be amended in accordance with this policy.
1. That all personnel commissioned, enlisted, and civilian now engaged in Signal Intelligence activities under the control of the Chief Signal Officer, together with all approved and authorized increases in personnel in the foregoing categories, be transferred from the Signal Intelligence Service of the Signal Corps to the Military Intelligence Service.

5. That all records, archives, libraries, equipment, installations, schools, plants and stations, and all other property and appurtenances pertaining to Signal Intelligence activities be transferred from the Signal Corps to the Military Intelligence Service.

III. Concurrence

ORD.

GEO. V. STRONG
Major General,
A. G. of S., G-2
MEMORANDUM FOR THE CHIEF, MIS.

SUBJECT: Operational Command and Control of the Signal Security Agency and the 2nd Signal Service Battalion.

1. Under date of 15 December 1944 a memorandum was dispatched to all activities concerned, forwarding a copy of the action of the Deputy Chief of Staff on the above subject as contained in his memorandum of 10 December 1944.

2. The forwarding memorandum indicated that the A.C. of S., G-2 would exercise his operational command and control through the Chief, MIS.

3. This is to confirm the verbal instructions issued this morning to the effect that I desire the Chief, MIS to delegate complete MIS responsibility for all action in connection with these activities to the Assistant Chief, MIS, General Clarke. The reasons were given and both the Chief and the Assistant Chief, MIS indicated understanding and agreement of this directive.

CLAYTON BISSELL
Major General
A.C. of S., G-2

1st Ind.

Chief, Military Intelligence Service, 18 December 1944.

To: Deputy Chief, MIS (General Clarke).

In accordance with the above directive, complete MIS responsibility for all action in connection with the above noted activities is hereby delegated to you.

R. A. OSMUN,
Brigadier General,
Chief, Military Intelligence Service.
I. The problem presented.
Should the Signal Intelligence Service be transferred from the Signal Corps to the Military Intelligence Service?

II. Facts bearing on the problem.
1. The functions of the Signal Intelligence Service are now as follows:

a. Obtains the raw material for cryptanalytic operations (intercept) and for locating enemy radio stations (direction finding).

b. Directs and coordinates the activities of radio intelligence companies through the CG's of Ground Forces and Air Forces, including preparation of T/O's and T/BA's.

c. Processes the raw material into clear text and forwards it to G-2.

d. Conducts continuous research and study of traffic analysis (non-cryptanalytic) based on fixed point-to-point traffic loads, and tactical traffic loads.

e. Compilation, storage, distribution, accounting of codes and ciphers for own use.

f. Development, procurement, distribution, maintenance, and operation of cryptographic machinery for all echelons of command.

g. Preparation of secret inks for use by own own agents, detection of secret inks used by enemy agents.

h. Responsibility and control of security of cryptographic operations throughout all echelons of command, including preparation of training and operations literature on this subject.

i. Liaison with organizations performing in U. S. Navy and other departments of U. S. Government, same as regards military and air forces of other members of United Nations.
1. Training of personnel for exercising all foregoing functions.

2. The current general directive governing the mission of SIS is being complied with.

3. From a historical standpoint the cryptanalytic service was at one time under G-2 but in 1929 was transferred to the Signal Corps because of certain disadvantages in its operation under G-2, as will be shown below. Appended hereto is a historical sketch which may be of interest in this connection. A pamphlet entitled "Organization and Duties of the Signal Intelligence Service", with a supporting chart, is also included.

III. Discussion.

1. The subject can be discussed under the two headings, advantages and disadvantages:

a. The advantages that would accrue from the proposed transfer are limited to one and only one, viz., the Military Intelligence Service, which uses the information furnished it by SIS cryptanalysis, would have direct operating control rather than indirect, supervisory control over the cryptanalytic functions of the SIS. But this direct control would be limited to those functions which are only a part of the many functions for which SIS is now responsible.

b. The disadvantages that would arise from the proposed transfer are four in number:

(1) While it is recognized that the MIS has certain operative functions, as outlined in Par. 4(b) of Circular 59, W.D., March 2, 1942, these can be considered to apply only to one phase of signal intelligence operations, namely, the cryptanalytic. However, the technical functions of SIS are entirely operative and run through all echelons of command. They include the security of all military communications. In achieving and maintaining this security, the collection of military information useful to G-2, by SIS cryptanalytic operations, is an inseparable corollary function. The SIS is a highly technical service, requiring close coordination as regards the employment of cryptography with all wire and radio communication facilities. The SIS thus serves not only G-2 but also all other staff and command sections, especially operations, for without good cryptographic functioning of signal communications, military field operations cannot be successfully carried out. Therefore, the taking over by MIS of all SIS functions and operations would very adversely affect efficiency of communications security.

(2) Information of the enemy obtainable through observation by signal intelligence agencies is divided into two categories:
Col. T. North, CPD
6-29-42

(a) Technical signal information which requires digest, interpretation, and correlation by a signal intelligence service to convert it to a form usable by military intelligence agencies.

(b) Information which from its nature is directly usable by military intelligence agencies.

If MIS is to continue to receive intelligence of the nature of that covered by (a) above, it must be prepared to produce the basic technical signal information from which the intelligence is derived. Signal intelligence and signal communications are inseparable.

(3) The Chief Signal Officer is charged with the development, procurement, storage, issue, and maintenance of all cryptographic equipment and supplies. This falls within the province of the CG, SOS and the procurement agency now established in SIS. The transfer of all SIS functions to MIS would therefore bring up technical problems which a staff agency is normally incapable of handling.

(4) Signal intelligence training is a problem of first magnitude and importance. It begins with basic training in signal communication. This is obviously a function of the Chief Signal Officer and cannot adequately be conducted by MIS. Moreover, this basic training requirement limits the supply of trained commissioned and enlisted personnel for signal intelligence duty to the Signal Corps. The MIS has no known source of supply of highly trained technical personnel.

2. If the Director of Military Intelligence desires greater coordination of cryptanalytic operations than he feels now can be exercised by him, the Chief Signal Officer would concur in the assignment of a qualified military intelligence officer to duty directly in SIS, to represent G-2 in the coordination of all current and projected cryptanalytic work. This would be analogous to the situation in the Navy, in which all SIS work is under direct control of the Director of Naval Communications (= Chief Signal Officer) but an officer of Naval Intelligence is assigned to Navy SIS. Moreover, in the Navy the evaluation of the information obtained by cryptanalysis is now directly under Navy SIS and is considered an inseparable corollary function of SIS. The evaluation work itself is conducted by Navy SIS personnel not ONI personnel.

IV. Recommendations.

1. That no change be made in the existing organization as far as concerns control of the functions of SIS under the Chief Signal Officer.

SECRET
Col. T. North, OPD
6-29-42

2. That SIS be given responsibility for evaluating the information obtained by it from its cryptanalytic and radio intelligence operations.

3. If desired by MIS, that a military intelligence officer be assigned to duty in SIS for the purpose of ensuring greater coordination and supervision of SIS cryptanalytic activities.

Dawson Olmstead,
Major General,
Chief Signal Officer of the Army.

3 Incls.

#1 "A brief history of the Signal Intelligence Service" with four exhibits

#2 Mimeographed pamphlet--"Organization and duties of the Signal Intelligence Service."

#3 Organization chart of SIS.
Memo for Col. Collins:

Confirming our phone conversation, I am enclosing a copy of the order I told you about.

Please have all papers affecting signal intelligence in any of its various aspects come direct to me.

[Signature]
MEMORANDUM FOR DEPUTY CHIEF, MILITARY INTELLIGENCE SERVICE

SUBJECT: Allocation of Responsibilities of the Office of the Chief Signal Officer and Signal Security Agency as Modified by Memorandum from Deputy Chief of Staff, 10 December 1944.

DISCUSSION

1. Under the provisions of the memorandum of 10 December 1944 from the Deputy Chief of Staff (Inclosure 1):

   a. Operational command and control of Signal Security Agency and Second Signal Service Battalion was transferred to Assistant Chief of Staff, G-2.

   b. Such activities of the Signal Corps, responsibility for which is charged to the Chief Signal Officer under Paragraph 2 p, Army Regulations 105-5, will continue to be performed by Signal Security Agency and the Second Signal Service Battalion.

   c. No change is effected as to the responsibility of the Office of the Chief Signal Officer in regard to the provisions calling for the preparation, publication, revision, storage, accounting for and distribution of all codes and ciphers required by the Army.

   d. Liaison with friendly foreign powers, the Navy, other United States government agencies, and the United States Theater Commanders on all matters in connection with signal intelligence is reserved as a responsibility of Assistant Chief of Staff, G-2.

   (1) Signal intelligence is defined for the purposes of this memorandum in the sense of "intelligence," in Paragraph 2, Page 144 of Training Manual 20-205, as "information of military value." In connection with Signal Security Agency operations, this definition includes specifically all information derived from the interception of enemy communications.

   e. The Assistant Chief of Staff, G-2, will control all movement of military or civilian personnel to or from the Signal Security Agency or Second Signal Service Battalion.
SPSIS-1A (16 April 1945)

f. The Chief Signal Officer will continue to be responsible for Signal Security Agency and Second Signal Service Battalion as far as Signal Corps functions prescribed in Paragraph 2, Army Regulations 105-5, relate to those activities other than as specifically excepted.

g. The Chief Signal Officer will continue to be responsible for the technical control of equipment in the same manner as for any other signal equipment.

2. Detailed allocation of the responsibilities of these functions and the chain of command are as follows:

a. Functions relating to preparation, publication, revision, storage, accounting for and distribution of all codes and ciphers required by the Army:

(1) Policy established by G-2 and forwarded to the Office of the Chief Signal Officer, who remains responsible to Commanding General, Army Service Forces, for execution of policies established.

(2) Chain of command responsibility.
   (a) Assistant Chief of Staff, G-2.
   (b) Commanding General, Army Service Forces.
   (c) Office of the Chief Signal Officer.
   (d) Signal Security Agency.

(3) Functions of the Office of the Chief Signal Officer:
   (a) The development, coordination, standardization, procurement, storage, issue, and repair of:

      1. Signal communication, cryptographic, and meteorological equipment and supplies, except repairs under the jurisdiction of commanding generals of service commands.

1. References: Army Regulations 105-5; OCSigO Memorandum, Serial Number 2, dated 1 January 1945, subject "Functional Responsibilities"; Memorandum from Deputy Chief of Staff, dated 10 December 1944, subject "Signal Security Agency and 2nd Signal Service Battalion."
SPSIS-1A (16 April 1945)

2. All electrical apparatus for radio direction finding and for range finding.

3. Photographic supplies and equipment except that required for:
   a. Photographic and cinematographic work made from aircraft.
   b. Ground photography in connection with aircraft operation and maintenance.
   c. Other special purposes for which the procurement, storage, issue, and repair have been specifically charged to another arm or service.

4. All sound recording equipment relating to communications. This includes equipment employed wholly or in part for the recording of radio and wire telephone and telegraph conversations, messages, and signals of all types, high speed radio and wire telephone and telegraph signals, intercepted radio and wire telephone and telegraph signals and other similar applications, including sound recording devices for recording conferences. Necessary accessories, supplies, and reproducing equipment are included. Office dictating equipment to be used solely for dictation and transcription in connection with stenographic work and not to be associated or connected with communications is not included.

(b) The general coordination and standardization of all radio operations and the enforcement of regulations concerning the same.

(c) The assignment of call letters, radio frequencies, power, and types of emissions for all Army radio stations.

(d) The maintenance, for the Chief of Staff and the Commanding General, Army Service Forces, of digests of military and technical characteristics of signal equipment in the Navy and in foreign military forces.
(e) Recommendations to the Commanding General, Army Service Forces, on the proper allowances of Signal Corps equipment in Tables of Basic Allowances and Tables of Allowances of the arms and services, except the Army Air Forces and Signal Corps aviation units.

(f) Recommendations to the Commanding General, Army Service Forces, on uniform methods and procedures for the use of signal communication equipment.

(4) Functions performed at Signal Security Agency:

(a) **Protective Security.** Development and execution of all policies concerning the development, production, and use of radio and radar countermeasures and radio deception. (Those functions pertaining to countermeasures are now in process of being transferred to Engineering and Technical Service.)

(b) **Communications Security.** Responsibility for provision of sound cryptographic systems, use and supervision of actual usage, security against all forms of analysis by the enemy, preparation and review of instructions, security documents, and indoctrinational material.

(c) **Cryptographic Material.** Responsibility for production and distribution of cryptographic documents and devices.

(d) **Invention and Development.** Responsibility for invention and development of all cryptographic and cryptanalytic apparatus.

(e) **Liaison.** Maintains liaison on technical matters relating to security or to coordination, in the production, distribution, and accounting for cryptographic material with other Arms or Services, the Navy, and friendly foreign powers.

(f) **Training:**

1. The coordination of the training of personnel assigned to signal communication duties, under instructions prescribed in orders of the War Department.
2. The training of civilian personnel required in the operation of agencies of the Signal Corps.

3. The training of specialists required by Signal Corps units except those trained in units or in schools not under the jurisdiction of the Commanding General, Army Service Forces.

4. Promulgation of training doctrine, scheduling programs, and conduct and supervision of training in Signal Corps schools, unit training centers, and the selection, assignment, and relief of training staff and faculty personnel assigned thereto; determination of major policies regarding the training of signal communication officers and specialists in civilian institutions, and supervision as to the maintenance of standards in such institutions.

5. The preparation and revision of all books, pamphlets, and instruction data required by the Army to make proper use of all equipment and apparatus developed, procured, and issued by the Signal Corps.

b. Functions relating to Second Signal Service Battalion:

   (1) The Chief Signal Officer will continue to be responsible for Second Signal Service Battalion.

c. Functions relating to intelligence:

   (1) Operational command.

      (a) A function of G-2.

   (2) Chain of responsibility.

      (a) Assistant Chief of Staff, G-2.

      (b) Signal Security Agency.

   (3) Functions performed by G-2:

      (a) Assistant Chief of Staff, G-2, will exercise operational command through Commanding Officer,
Signal Security Agency, over all functions of Signal Security Agency relating to intelligence as outlined in the following:

1. Functions performed by Signal Security Agency under operational command of G-2.

   a. Supervision and coordination of all activities concerned with the deriving of intelligence from the interception of foreign cryptographic communications.

   d. Functions relating to liaison on intelligence with friendly foreign powers, the Navy, other United States government agencies, and United States Army Theater Commanders, on all matters in connection with signal intelligence are the responsibility of Assistant Chief of Staff, G2.

   e. Functions relating to administration, Signal Security Agency:

      (1) Military Personnel.

         (a) Personnel responsibilities of the Chief Signal Officer:

            1. The handling of routine requests for the transfers in and out of Signal Security Agency of military personnel - both officers and enlisted, subject to concurrence of Assistant Chief of Staff, G-2.

            2. The procurement of fillers and replacements for:


               b. Signal cryptographic training activities as conducted by Signal Security Agency.

            3. The withdrawal of fillers and loss replacements from signal cryptographic training activities if requirements are placed upon Chief Signal Officer.

            4. The processing of transfers of personnel outside of continental limits of the United States.
SPSIS-1A (16 April 1945)

5. Procurement of personnel for Table of Organization units attached to Signal Security Agency and disposal of unusable personnel from such units.

6. Making of readjustments of personnel authorizations within current allotment.

7. Summarization of Ap-1 reports.

8. Handling of efficiency reports as per letter, 23 January 1945.

9. The summarization of reports of travel.

10. Processing of relief from active duty of surplus officers.

11. Awarding of Meritorious Service Plaque.

12. Processing of any reclassification cases through the Chief Signal Officer's Reclassification Board in the event request is made by the Commanding Officer, Signal Security Agency.

(b) Personnel Responsibilities of G-2:

1. Processing of requests for increased personnel allotments (information copy to be furnished Chief Signal Officer).

2. Administration of work load studies.

3. Processing of promotion cases as per letter, 23 January 1945.

4. Supervision of adherences to War Department personnel policies, i.e., War Department Circular 356, Army Service Forces Circular 193, etc.

5. Processing of recommendations for awards. It is probable that the War Department Decorations Board will refer any cases brought up to G-2 to the Chief Signal Officer for his concurrence.
6. Inspection and survey of WAC personnel. Since G-2 has no WAC staff director, it is possible that Colonel Hobby may make some change in this procedure.

7. Delegation of the authority to issue travel orders within the continental limits of the United States of all military personnel and to effect the reassignment of officers between Signal Security Agency and the Second Signal Service Battalion.

(2) Civilian Personnel.

(a) Responsibility of Assistant Chief of Staff, G-2:


2. Work measurement studies.

3. Work simplification studies.

4. Utilization of personnel studies.

(b) Responsibility of Chief Signal Officer:

1. War Department Suggestion Program.

2. Civilian Award Program.

3. Civilian Efficiency Ratings.

4. Deferments.

5. Classification.

6. Wage Administration.

7. Training (except technical training).

8. Participation in Drives (War Bonds, Red Cross, Community Chest, Mile O'Dimes, etc.).
SPSIS-1A (16 April 1945)

2. Procedures and Records.

10. Employee Relations.

Subject: Costs, Three Stations

To: Assistant Executive Officer

1. Chart herewith submitted is from inclosed documents, verbal statements and estimates:

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2. Monthly estimated running costs, continue columns in 1. above:

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<tr>
<th></th>
<th>A.H.</th>
<th>V.R.</th>
<th>T.P.</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian Payroll</td>
<td>$553,239</td>
<td>$5,589</td>
<td>$12,714</td>
<td>$561,542</td>
</tr>
<tr>
<td>E.M. Payroll</td>
<td>45,454</td>
<td>104,000</td>
<td>127,174</td>
<td>182,628</td>
</tr>
<tr>
<td>E.M. Rations</td>
<td>13,500</td>
<td>29,000</td>
<td>117,960</td>
<td>189,660</td>
</tr>
<tr>
<td>Officers Payroll</td>
<td>120,000</td>
<td>24,065</td>
<td>117,960</td>
<td>147,960</td>
</tr>
<tr>
<td>Equipment (including</td>
<td>1.15, rental</td>
<td>6,500</td>
<td>1,500</td>
<td>133,000</td>
</tr>
<tr>
<td>l.H.M, rental)</td>
<td>175,000</td>
<td>6,500</td>
<td>1,500</td>
<td>133,000</td>
</tr>
<tr>
<td>Util. &amp; Post Engineer</td>
<td>30,000</td>
<td>100,000</td>
<td>130,000</td>
<td>240,000</td>
</tr>
<tr>
<td>Tel. Tel. &amp; Tel.</td>
<td>2,000</td>
<td>400</td>
<td>100</td>
<td>2,500</td>
</tr>
<tr>
<td>Motor Pool</td>
<td>400</td>
<td>800</td>
<td>100</td>
<td>1,300</td>
</tr>
<tr>
<td><strong>Monthly Costs</strong></td>
<td>$929,503</td>
<td>$122,163</td>
<td>$41,287</td>
<td>$1,153,053</td>
</tr>
</tbody>
</table>

3. Apportionate J.D., General Staff and OCSdgO-costs not included.

By order of Colonel Cordermann:

J. J. S. Doyle
2nd Lt., Signal Corps

ASAT 6 July 1943
SUBJECT: Costs Analysis, Arlington Mall Station

TO: Assistant Executive Officer

1. Acquisition:
   a. School Plant
   b. 6.5 Acres in litigation

2. Construction, outside
   a. Clearing, Grading, Drainage
      (1) Clearing
      (2) Grading
      (3) Excavation
   b. Sewers
      (1) Storm
      (2) Sanitary
   c. Distribution Systems
      (1) Water
      (2) Electric
      (3) Gas
   d. Roads and Streets

3. Construction, permanent buildings:
   a. Operations buildings
1. Operations "A"  1,533,922.00
2. Operations "L"  1,368,149.00
b. Cafeteria  69,528.00
c. Sixteen (16) T.O. Barracks  14,375.00
d. Two (2) T.O. Lavatory Buildings  14,373.00
e. Lesa Hall  18,742.00
f. F.X., Infirmary, Fire House, Storehouse, Gas Station and Incinerator, no separate cost  43,836.00
4. Rehabilitation of existing structures
a. Adm. Bldg.  25,075.00
(1) Annex  11,782.00
b. Boiler House  2,917.00
c. Warehouse  33,026.00
d. Alarm Fence  33,428.00
e. Flagpole  1,061.00
5. Equipment and Supplies
a. Western Electric job in "E"  918,000.00
b. Other equipment  245,000.00
c. Research Development, Crypt.  260,000.00
d. Supplies
(1) General  143,000.00
(3) Photographic
   - 10,000.00
(5) Books, training
   - 3,000.00

a. Utilities
   - 14,000.00
f. Service
   - 5,000.00
g. Construction
   - 6,000.00
   - 1,610,000.00
h. Procurement and Accounting
   - Division Purchases
      (1) I.R.I. Rental
         - 180,000.00
      (2) Supplies
         - 120,000.00
      (3) Equipment
         - 150,000.00
         - 450,000.00
         - 850,000.00

8. Motor Pool
   a. Nine (9) Passenger Cars
      - 7,500.00
   b. Seven (7) half-ton trucks
      - 5,800.00
c. Seven (7) ton and one-half trucks
   d. Five (5) Shuttle buses
      - 5,000.00
e. Tools, supplies, equipment
   - 11,100.00

7. Utilities and Post Engineer Costs
   a. Maintenance, repairs, additions
      and operations, 9 Sept. 1942 to
      30 June 1943, including administration
      - 98,000.00

8. Communications
   a. Telephone, to end fiscal year
      - 51,402.00
   b. Teletype, to end fiscal year
      - 3,467.00
7. Telegram, to end fiscal year
   
   123.00

9. Grand total, excluding other running expenses

   By order of Colonel Cardermon:

   
   $4,000.00

   $28,000.00

   $4,000,000.00

1. Incl.
   Copy costs

   
   
   

   [Signature]

   M. J. S. Doyle
   Adj. Lt., Signal Corps
SUBJECT: Costs, Three Stations

TO: Assistant Executive Officer

1. Chart herewith submitted is from estimates received and personally obtained:

<table>
<thead>
<tr>
<th>ANALYSTS</th>
<th>A.T.</th>
<th>P.T.</th>
<th>T.F.</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition</td>
<td>$856,000.00</td>
<td>$116,000.00</td>
<td>$972,000.00</td>
<td>$981,261.00</td>
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<tr>
<td>Construction</td>
<td>$4,122,220.00</td>
<td>$1,026,046.00</td>
<td>$5,148,266.00</td>
<td>$5,677,287.00</td>
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<tr>
<td>Equipment</td>
<td>$5,760,000.00</td>
<td>$140,000.00</td>
<td>$5,900,000.00</td>
<td>$6,047,142.00</td>
</tr>
<tr>
<td>Water Pool</td>
<td>$66,416.00</td>
<td>$66,416.00</td>
<td>$132,832.00</td>
<td>$144,718.00</td>
</tr>
<tr>
<td>Util. &amp; Post Engineer</td>
<td>$235,820.00</td>
<td>$97,478.00</td>
<td>$333,298.00</td>
<td>$344,998.00</td>
</tr>
<tr>
<td>Tel. Tel. &amp; Tel.</td>
<td>$43,222.00</td>
<td>$43,222.00</td>
<td>$86,444.00</td>
<td>$90,264.00</td>
</tr>
<tr>
<td><strong>AUXIAL EXPENSE</strong></td>
<td>$13,667,287.00</td>
<td>$1,572,523.00</td>
<td>$15,240,360.00</td>
<td>$17,048,348.00</td>
</tr>
</tbody>
</table>

2. Monthly estimated running costs, continue columns in 1. above:

<table>
<thead>
<tr>
<th></th>
<th>A.T.</th>
<th>P.T.</th>
<th>T.F.</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian Payroll</td>
<td>$500,000.00</td>
<td>$7,000.00</td>
<td>$5,300.00</td>
<td>$612,000.00</td>
</tr>
<tr>
<td>Ed Payroll</td>
<td>$41,200.00</td>
<td>$160,000.00</td>
<td>$201,200.00</td>
<td>$232,000.00</td>
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<tr>
<td>Ed Payroll</td>
<td>$14,673.00</td>
<td>$32,448.00</td>
<td>$47,121.00</td>
<td>$51,627.00</td>
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<tr>
<td>Officer's Payroll</td>
<td>$107,000.00</td>
<td>$12,182.00</td>
<td>$119,182.00</td>
<td>$130,442.00</td>
</tr>
<tr>
<td>Equipment (including Int. rental)</td>
<td>$88,000.00</td>
<td>$4,000.00</td>
<td>$92,000.00</td>
<td>$96,000.00</td>
</tr>
<tr>
<td>Util. &amp; Post Engineer</td>
<td>$10,000.00</td>
<td>$10,000.00</td>
<td>$20,000.00</td>
<td>$20,000.00</td>
</tr>
<tr>
<td>Tel. Tel. &amp; Tel.</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>$6,000.00</td>
<td>$6,000.00</td>
</tr>
<tr>
<td>Motor Pool</td>
<td>$400.00</td>
<td>$400.00</td>
<td>$800.00</td>
<td>$800.00</td>
</tr>
<tr>
<td><strong>MONTHLY COSTS</strong></td>
<td>$245,882.00</td>
<td>$229,850.00</td>
<td>$475,732.00</td>
<td>$515,632.00</td>
</tr>
</tbody>
</table>

3. Apportionate 1/3, General Staff and C&G costs not included.

By order of Colonel Corderman:

J. J. S. Doyle
1st Lt., Signal Corps

1 Incl.
Ltr. Jod 7/6/43, subj. "Costs, Three Stations"

* Includes $5,500,000 of Developments and Funds transferred from Ground Signal Agency to S.S.A.
SUBJECT: Costs, Three Stations

TO: Assistant Administrative Officer

1. Chart herewith submitted is from estimates received or personally obtained:

<table>
<thead>
<tr>
<th>ANALYSIS</th>
<th>A.H.</th>
<th>V.E.</th>
<th>F.F.</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisition</td>
<td>$660,000.00</td>
<td>$110,000.00</td>
<td>$21,281.00</td>
<td>$691,281.00</td>
</tr>
<tr>
<td>Construction</td>
<td>4,830,198.00</td>
<td>1,551,046.00</td>
<td>1,017,277.00</td>
<td>7,408,511.00</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>9,447,000.00</td>
<td>244,600.00</td>
<td>101,000.00</td>
<td>9,892,600.00</td>
</tr>
<tr>
<td>Util. &amp; Post Engineer</td>
<td>416,360.00</td>
<td>135,600.00</td>
<td>80,000.00</td>
<td>632,960.00</td>
</tr>
<tr>
<td>Tel. Tel. &amp; Tel.</td>
<td>60,226.00</td>
<td>11,600.00</td>
<td>8,500.00</td>
<td>70,326.00</td>
</tr>
<tr>
<td><strong>ALREADY EXPENDED</strong></td>
<td>15,865,817.00</td>
<td>2,061,323.00</td>
<td>11,207,588.00</td>
<td>29,134,728.00</td>
</tr>
</tbody>
</table>

2. Monthly estimated running costs, continue columns in 1. above:

| Civilian Payroll                | $911,289.00 | $7,600.00 | $4,500.00 | $9,989.00 |
| Enl Payroll                     | 54,000.00   | 78,000.00 | 32,000.00 | 164,000.00 |
| Enl Rations                     | 21,120.00   | 16,110.00 | 12,660.00 | 49,890.00 |
| Officer's Payroll and allowances| 165,686.00  | 35,974.00 | 4,200.00  | 206,860.00 |
| **Equipment**                   | 95,000.00   | 12,000.00 | 1,000.00  | 108,000.00 |
| Util. & Post Engineer           | 30,000.00   | 22,656.00 | 5,000.00  | 57,656.00  |
| Tel. Tel. & Tel.                | 5,000.00    | 1,100.00  | 800.00    | 6,900.00   |
| **MONTHLY COSTS**               | $1,200,097.00 | $178,318.00 | $76,670.00 | $1,455,085.00 |

3. Apportionate V.E., General Staff and GCSigC costs not included.

J. J. S. Boyle
1st Lt., Signal Corps

*Includes $5,500,000 of Developments and Funds transferred from Ground Signal Agency to G.S.A.

**Includes IBM rental
### CIVILIAN PAYROLL BUDGET

**Arlington Bell Station**  
Fiscal Year 1944

#### Professional

<table>
<thead>
<tr>
<th>Position Description</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director of Communications Research, P-7</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>Chief Radio Engineer, P-6</td>
<td>$8,000.00</td>
</tr>
<tr>
<td>Head Cryptanalyst, P-7</td>
<td>$6,500.00</td>
</tr>
<tr>
<td>Principal Research Analysts, P-6</td>
<td>$11,000.00</td>
</tr>
<tr>
<td>Senior Research Analysts, P-5</td>
<td>$9,699.82</td>
</tr>
<tr>
<td>Senior Cryptanalysts, P-5</td>
<td>$44,992.86</td>
</tr>
<tr>
<td>Radio Engineers, F-4</td>
<td>$17,712.98</td>
</tr>
<tr>
<td>Research Analysts, F-4</td>
<td>$84,136.96</td>
</tr>
<tr>
<td>Cryptanalysts, F-4</td>
<td>$66,564.60</td>
</tr>
<tr>
<td>Associate Research Analysts, F-3</td>
<td>$150,186.12</td>
</tr>
<tr>
<td>Associate Radio Engineers, F-4</td>
<td>$52,569.44</td>
</tr>
<tr>
<td>Associate Cryptanalysts, F-3</td>
<td>$187,565.76</td>
</tr>
<tr>
<td>Assistant Research Analysts, F-2</td>
<td>$326,978.00</td>
</tr>
<tr>
<td>Assistant Cryptanalysts, F-2</td>
<td>$292,336.80</td>
</tr>
<tr>
<td>Assistant Radio Engineers, F-2</td>
<td>$37,556.40</td>
</tr>
<tr>
<td>Jr. Research Analysts, F-2</td>
<td>$253,044.48</td>
</tr>
<tr>
<td>Jr. Cryptanalysts, F-1</td>
<td>$340,626.60</td>
</tr>
<tr>
<td>Jr. Radio Engineers, F-1</td>
<td>$24,331.20</td>
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#### Sub-Professional

<table>
<thead>
<tr>
<th>Position Description</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Cryptographic Specialists, SP-6</td>
<td>$53,854.00</td>
</tr>
<tr>
<td>Principal Cryptographic Specialists, SP-7</td>
<td>$52,839.92</td>
</tr>
<tr>
<td>Senior Cryptographic Specialists, SP-5</td>
<td>$54,036.64</td>
</tr>
<tr>
<td>Cryptographic Specialists, SP-5</td>
<td>$499,016.00</td>
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<tr>
<td>Assistant Cryptographic Specialists, SP-4</td>
<td>$519,970.56</td>
</tr>
<tr>
<td>Junior Cryptographic Specialists, SP-3</td>
<td>$526,726.00</td>
</tr>
</tbody>
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#### CAF

<table>
<thead>
<tr>
<th>Position Description</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sr. Adm. Officer, CAF-10</td>
<td>$4,999.92</td>
</tr>
<tr>
<td>Jr. Adm. Officer</td>
<td>$4,266.94</td>
</tr>
<tr>
<td>Sr. Adm. Assistants, CAF-9</td>
<td>$11,494.78</td>
</tr>
<tr>
<td>Adm. Assistants, CAF-9</td>
<td>$10,504.78</td>
</tr>
<tr>
<td>Lead Cryptographic Clerk, CAF-7</td>
<td>$3,155.50</td>
</tr>
<tr>
<td>Jr. Adm. Assistant, CAF-7</td>
<td>$4,582.60</td>
</tr>
<tr>
<td>Procedure Analyst, CAF-7</td>
<td>$4,552.80</td>
</tr>
<tr>
<td>Principal Cryptographic Clerks, CAF-7</td>
<td>$5,153.80</td>
</tr>
<tr>
<td>Principal Clerk &amp; Stenographers, CAF-5</td>
<td>$4,2795.16</td>
</tr>
<tr>
<td>Principal Clerks, CAF-6</td>
<td>$13,990.00</td>
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</tbody>
</table>
### CAF (Cont'd)

<table>
<thead>
<tr>
<th>Position</th>
<th>Pay Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sr. Supervisor, Machine Tab. Unit, CAF-6</td>
<td>$2,790.10</td>
<td>8,324.60</td>
</tr>
<tr>
<td>Sr. Cryptographic Clerks, CAF-6</td>
<td>$2,433.10</td>
<td>60,928.00</td>
</tr>
<tr>
<td>Sr. Clerk-Stopwatches, CAF-6</td>
<td>$2,433.10</td>
<td>141,160.00</td>
</tr>
<tr>
<td>Sr. Clerk-Trackers, CAF-6</td>
<td>$2,433.10</td>
<td>222,766.30</td>
</tr>
<tr>
<td>Supervisors, Machine Tab. Unit, CAF-5</td>
<td>$2,043.10</td>
<td>60,030.00</td>
</tr>
<tr>
<td>Cryptographic Clerks, CAF-4</td>
<td>$2,190.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Clerk Stenographers, CAF-4</td>
<td>$2,190.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Clerks, CAF-4</td>
<td>$2,190.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Clerks-Trackers, CAF-4</td>
<td>$2,190.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Supervisors, Machine Tab. Unit, CAF-4</td>
<td>$2,190.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Assistant Cryptographic Clerks, CAF-3</td>
<td>$1,970.96</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Assistant Clerk-Stenographers, CAF-3</td>
<td>$1,970.96</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Assistant Clerks, CAF-3</td>
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<tr>
<td>Assistant Clerks, CAF-5</td>
<td>$1,970.96</td>
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<tr>
<td>Sr. Tab. Machine Operators, CAF-3</td>
<td>$1,970.96</td>
<td>222,190.00</td>
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<tr>
<td>Sr. Card Punch Operators, CAF-3</td>
<td>$1,970.96</td>
<td>222,190.00</td>
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<tr>
<td>Mimeograph Operators, CAF-3</td>
<td>$1,970.96</td>
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<tr>
<td>Assistant Electrical Technicians, CAF-3</td>
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<tr>
<td>Jr. Cryptographic Clerks, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Clerk Stenographers, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
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<tr>
<td>Jr. Clerks, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Clerk-Trackers, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Tab. Machine Operators, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Card Punch Operators, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
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<tr>
<td>Jr. Operators, Mimeograph, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
<tr>
<td>Jr. Electrical Technicians, CAF-2</td>
<td>$1,752.00</td>
<td>222,190.00</td>
</tr>
</tbody>
</table>

### CPC

<table>
<thead>
<tr>
<th>Position</th>
<th>Pay Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head Messengers, CPC-4</td>
<td>$1,854.96</td>
<td>5,649.88</td>
</tr>
<tr>
<td>Messengers, CPC-3</td>
<td>$1,665.04</td>
<td>12,564.72</td>
</tr>
<tr>
<td>Jr. Messengers, CPC-2</td>
<td>$1,469.92</td>
<td>4,378.76</td>
</tr>
<tr>
<td>Jr. Janitors, CPC-2</td>
<td>$1,469.92</td>
<td>99,172.16</td>
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### UNGRADED

<table>
<thead>
<tr>
<th>Position</th>
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<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng. Equipment Superintendent</td>
<td>$3,928.24</td>
<td>3,928.24</td>
</tr>
<tr>
<td>Electrical Machinists</td>
<td>$2,190.00</td>
<td>11,250.00</td>
</tr>
<tr>
<td>Electrical Machinists Helper</td>
<td>$1,570.88</td>
<td>56,339.72</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>8,069,623.76</td>
</tr>
</tbody>
</table>

Adjustment for Advances in grades at rate of 6%: 8,069,623.76 x 6% = 484,577.26

**Total:** 8,554,201.02