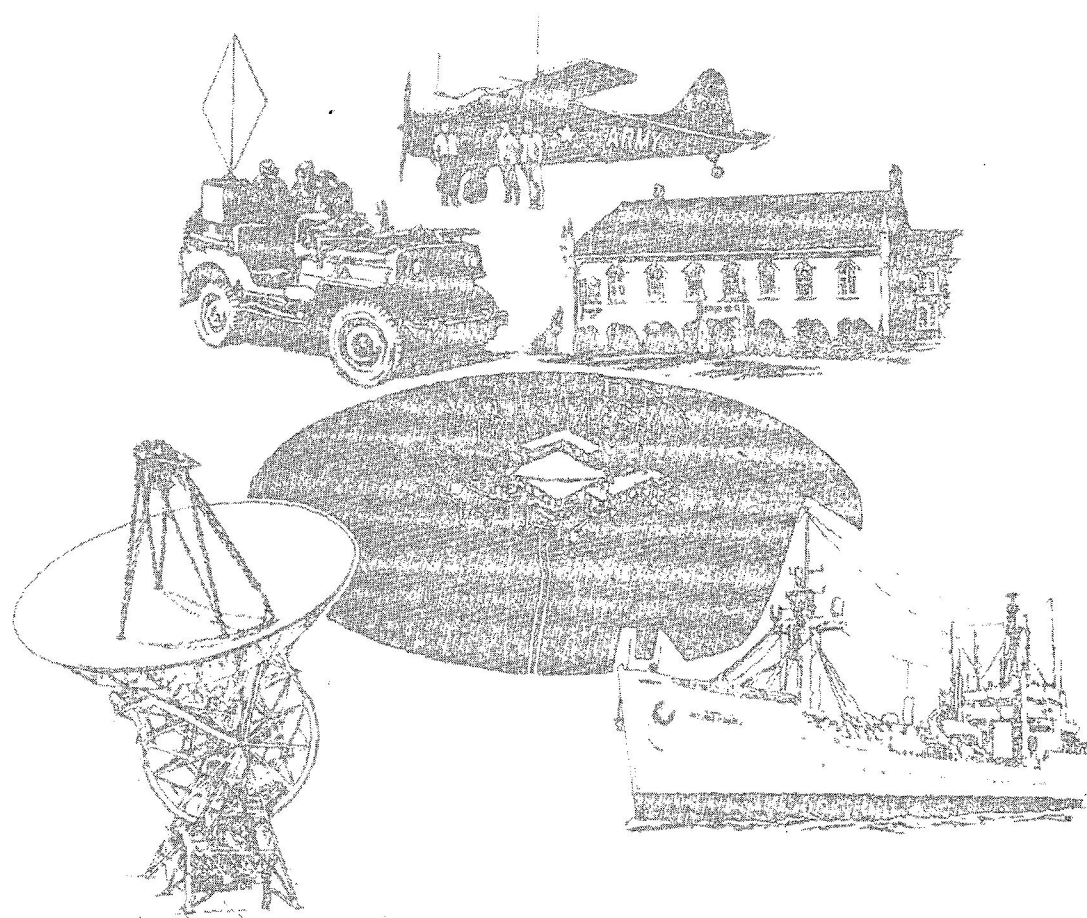


~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

UNITED STATES CRYPTOLOGIC HISTORY



*(U) American Cryptology during the
Cold War, 1945-1989*

(U) Book IV: Cryptologic Rebirth, 1981-1989



Derived From: NSA/CSSM 123-2
Dated 24 February 1998
Declassify on: X1, X5, X6

CCH-S54-99-01

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

series VI
volume 5

book IV

national security agency
central security service

~~TOP SECRET//COMINT//UMBRA//~~
~~TALENT KEYHOLE//X1~~

American Cryptology during the Cold War, 1945-1989 - Book IV

~~TOP SECRET//COMINT//UMBRA//~~
~~TALENT KEYHOLE//X1~~

This monograph is a product of the National Security Agency history program. Its contents and conclusions are those of the author, based on original research, and do not necessarily represent the official views of the National Security Agency. Please address divergent opinion or additional detail to the Center for Cryptologic History (S542).

**This document is not to be used as a source
for derivative classification decisions.**

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

UNITED STATES CRYPTOLOGIC HISTORY

Series VI
The NSA Period
1952 – Present
Volume 5

American Cryptology during the
Cold War, 1945–1989
Book IV: Cryptologic Rebirth, 1981–1989

Thomas R. Johnson



CENTER FOR CRYPTOLOGIC HISTORY
NATIONAL SECURITY AGENCY

1999

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Table of Contents

Page

(U) BOOK IV: CRYPTOLOGIC REBIRTH, 1981-1989

(U//~~FOUO~~) Chapter 21: The Reagan Revolution

Background	263
The National Security Mechanism under Reagan	265
The Inman Appointment	265
General Faurer Becomes NSA's Director	266
The Odom Administration	267
At the White House	270
SIGINT Resources in the Reagan Years	271
The Cryptologic System in the 1980s	278
The FSCS Study	281
"Battlestar Galactica"	282
Comsat	286
[Redacted]	288
Cryptologic Communications	290
Cryptologic Computers	291
Computer Security	292
Operations Security	294
INFOSEC and the New Way of Doing Business	295
The Second Parties - the United Kingdom	299
Australia	302
New Zealand	303
Third Parties	304
[Redacted]	306
All the Rest	307

EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

(U) Chapter 22: The Second Cold War

The SIGINT System and the Soviet Problem	315
The Polish Crisis	315
The Second Cold War	318
KAL 007	320
Shemya	320
Misawa	321
Wakkanai	323
Tokyo	324
Washington	325
Moscow	328
New York	331
The Postmortems	332

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Verification	334
The Relocatable Targets Problem	335
 (U) Chapter 23: The Rise of Terrorism and Unconventional Targets in the 1980s	
Terrorism	345
The Dozier Kidnapping	347
The Sabana Seca Incident	349
Airline Hijackings	349
The <i>Achille Lauro</i> Affair	351
La Belle Discotheque	354
The War on Drugs	361
SIGINT and CounterIntelligence	365
 (U) Chapter 24: Military Crises and SIGINT Support during the Reagan Administration	
Urgent Fury	371
The Falklands War – A Success Story	374
Just Cause	379
 (U) Chapter 25: Iran-Contra	
Contra	387
The Nicaraguan Revolution and the Concern about Communist Subversion	387
Iran	392
 (U) Chapter 26: The Year of the Spy	
Gunman	401
Prime	407
Pelton	409
Walker	417
Pollard	422
Hall	424
Carney	425
The Puzzle Palace	426
The American Library Association Suit	428
Epilogue	428
 (U) Glossary	 433
 (U) Sources	 441
 (U) Index	 453

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(U//FOUO)~~ Chapter 21 The Reagan Revolution

(U) BACKGROUND

(U) Nineteen-eighty marked more than just a change of decade. It was a change of mood. Some have called it the Reagan Revolution. Reagan, a forever optimistic actor from California, came to office with a world view in complete contrast with that of the 1970s. He was tired of talk about limitations, wanted none of the gloom that had settled over the White House in the late Carter years. He would restore America's power in the world. He would start by spending the nation back into prosperity.

(U) When Gerald Ford left office, the national debt was \$644 billion. When Jimmy Carter departed, it was \$909 billion. When Ronald Reagan left office, it was more than 2 and one half trillion dollars. The severe gap between income and expenditures had a long-term impact on many areas of national life, not the least on the funding of defense programs.

(U) It was Reagan's dual approach that created the problem. He would generate demand by cutting taxes, but, paradoxically, he would increase spending on national defense. This would leave a gap between revenues and expenditures that would be made up by cutting domestic programs. But domestic programs could not be cut that much, and a considerable portion of the national debt came from the funding of defense programs.

(U) At the core of Reagan's defense revival was intelligence. It meant getting good information on adversaries, and it meant employing that information in active ways – a strong covert action program. The new DCI was a long-time Reagan friend, the manager of his successful presidential campaign in 1980 – William Casey. Casey's intelligence background was OSS in World War II. OSS had been excluded from COMINT during the war, and so to them intelligence meant HUMINT, i.e., agents. He had no experience with SIGINT, but he was a fast learner.

(U) When Casey became DCI, "technical intelligence" had just about taken over. The Carter administration believed in it, and most of the money went toward it. Despite the well-known Reaganesque proclivity toward agents and covert actions, this did not really change during his administration. His transition team wanted more money dumped into satellite programs, and the Reagan administration cut its sails in that direction from the first day.¹ Casey himself quickly came to understand the value of SIGINT, and did not share the institutional view of NSA that so dominated the thinking of his own staff. His own deputy, Bobby Inman, said later that

(U) For all of my difficulties with Bill Casey on so many other issues, on this one I would give him a clean bill of health....While he set out to rebuild and revitalize the DDO, he recognized the value of Signals Intelligence and the role it played....He did not bring an instinctively parochial view to the issue. Was it relevant? Was it timely? Was it useful? Did you need more money? These were the sorts of basic attitudes he brought.²

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) William Casey and Ronald Reagan

(U) The Reagan administration marked the height of the Cold War. The president referred to the Soviet Union as the Evil Empire, and was determined to spend it into the ground. The Politburo reciprocated, and the rhetoric on both sides, especially during the first Reagan administration, drove the hysteria. Some called it the Second Cold War. The period 1982-1984 marked the most dangerous Soviet-American confrontation since the Cuban Missile Crisis.

(U) Despite the president's support of intelligence programs, NSA was wary. The White House viewed intelligence as a foreign policy tool, and used it to advance larger foreign policy interests, regardless of security implications. Three instances make the case.

~~(TS//SI-UMBRA)~~ In 1985, a Palestinian terrorist group captured an Italian cruise ship, the *Achille Lauro*, in the Mediterranean. SIGINT tracked the ship and its captors to Cairo and revealed plans by the Mubarak government to spirit their "problem" to Tunis. The capture of the terrorists was effected by a highly sensitive SIGINT source, and a leaky White House revealed the source.

~~(TS//SI-UMBRA)~~ The next year the Libyan bombing of a West Berlin night club, the La Belle Discotheque, led to the American bombing of Libya. The Libyan responsibility was revealed through intercept of Libyan state security communications.

EO 1.4.(c)
 PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Once again, SIGINT was exposed as the source, and the source dried up (at least temporarily).

~~(TS//SI-UMBRA)~~ The best known exposure of SIGINT since the Pearl Harbor hearings of 1945 had actually come in 1983, when the Reagan administration played the intercepted cockpit conversations of the Soviet pilot as he shot down KAL-007. The SIGINT gave the administration a tremendous foreign policy coup; the actual damage to SIGINT from the tapes was negligible. (But other information, from Gamma sources, may have done substantial damage.)

(U) There were numerous other instances. British historian Christopher Andrew cites just one – the 1988 exposure of the decrypt of Iraqi military communications relating to the Iraqi use of poison gas on their Kurdish population.³ It came from an atmosphere in which the loss of sources and methods was deemed less important than the foreign policy gains.

~~(FOUO)~~ Counterbalancing the Reagan administration's penchant for misuse of intelligence was the president's strong support of his intelligence agencies. In 1986 he became the first American president to visit NSA, as he gave the official dedication speech for NSA's two new buildings, Ops 2A and Ops 2B. He wanted to loosen the legal reins governing intelligence, and signed a new executive order, 12333, which gave NSA latitude in SIGINT collection that it had not had during the Carter years. Reagan revived the President's Foreign Intelligence Advisory Board (PFIAB), moribund under Carter. The new chair, Anne Armstrong, was a strong and effective advocate for the intelligence community.⁴

(U) THE NATIONAL SECURITY MECHANISM UNDER REAGAN

(U) *The Inman Appointment*

(U) Casey needed a deputy, and he was not inclined to go to the existing CIA structure. Thus the search turned outside CIA, and eventually settled on NSA director Admiral Bobby Inman. The way that Inman was selected became a Washington legend. His prime sponsor was Senator Barry Goldwater, who had urged that Reagan make Inman the DCI. As DIRNSA, Inman's reputation had become so special that he was regarded as essentially untouchable. Bob Woodward, in his book *Veil*, described Inman in the adulatory tone of the times:

(U) Inman knew the intelligence business cold. He was the best source on everything from the latest spy satellite to the bureaucratic maneuvering required to get intelligence programs going. He had a fabulous memory. With his boyish, toothy smile, large head, thick glasses, Inman looked like a grown-up whiz kid. He was one of the few intelligence officials who would talk to reporters and get them to hold off on stories that compromised intelligence. He had nurtured all the important relationships in the Congress. Goldwater could not recall an instance in which Inman had failed to return a phone call or to track down an answer on the rare occasion when he didn't know it.⁵

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Others in the news media had similar comments. According to the *Washington Star*, "It is reassuring both to those who want to see U.S. intelligence operations strengthened and to those who don't want to see the CIA crashing through the forest in its previous 'rogue elephant' role.... 'There is not a mark on him,' says a former admiral who worked with Inman in naval intelligence." At the Senate confirmation hearing, Senator Goldwater opened by saying: "You have my vote even before I hear your testimony...." Inman became the first superstar to emerge from NSA. Most expected him to maximize the role of SIGINT and to turn up his nose at covert operations and other messy programs.⁶

(U) General Faurer Becomes NSA's Director



(U) General Lincoln D. Faurer

(U) Inman's successor as DIRNSA was Air Force Lieutenant General Lincoln D. Faurer. Faurer had a strong flying background (he piloted both B29s and RB-47s) and experience in missile and space operations. Although he had no direct experience in cryptology, he had served two tours at DIA and three others in intelligence-related jobs. He came to NSA from Europe, where he had been both J2 USEUCOM, and deputy chairman of the NATO Military Committee. He thoroughly understood the intelligence needs of theater commanders, and he made support to military operations a central theme of his tenure at NSA.⁷

(U//FOUO) If Inman could be described as "brilliant and brittle," "Linc" Faurer might have been accurately depicted as avuncular but determined. He valued accommodation and collegiality, and he tried to reconstruct

NSA's management system based on new management principles emphasizing cooperation and corporate decision-making.⁸ It was difficult to redirect NSA's staff system in such a radical way. Under Inman, management had been top down, and Inman neither needed nor wanted a staff system. Faurer was just the opposite.

~~(S//SI)~~ Much of Faurer's energy was directed toward sharpening support to military operations. As the former deputy chairman of NATO's Military Committee, he focused on SIGINT support to NATO, establishing

This mechanism violated the strict bilateralism of Third Party relationships codified in the UKUSA Agreement, but that approach had been growing outmoded anyway. Multilateralism was the only feasible approach in the NATO environment.⁹

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~

~~(S//SI)~~ Much of his effort along this line was doomed to frustration. During the Grenada operation, NSA was shut out of operational details (see page 372), bringing the dispute over this long-running problem to a boil. After the bombing of the Marine barracks in Lebanon in 1983, the Navy insisted that SIGINT support to the remaining Marines be routed through Sixth Fleet. Faurer, experienced in the ways of military operations, rejected that approach. "We fought that battle and it got more heated after the bombing than it did before and it's dead wrong. I mean, you just can't live with it that way." He cultivated his relationships with the J3 (chief of the JCS operations staff) throughout his tenure, trying to educate each successive occupant of the chair, and he got understanding nods but no results. "And it went on the entire time. We never solved the problem."¹⁰

(U//~~FOUO~~) Faurer developed a high regard for both his bosses, Casey and Weinberger. As for Casey, once Faurer got over the difficulty of understanding what he was saying (a problem that followed Casey his whole life – unintelligible speech), he acquired great respect for the DCI. "I happen to think Bill Casey is as fine a DCI as we've had in the time I've been associated with intelligence, and I go back to Jim Schlesinger."¹¹ But Faurer read his own charter literally, and believed that in DoD, his direct supervisor was Weinberger. He never accepted the delegation of NSA to the deputy secretary of defense, William Taft. Faurer fought Taft constantly to insure that NSA's national role remained an independent responsibility. They had disputes over NSA's national role in policy issues and over budget issues that transcended the Defense Department. They were never resolved, and Faurer was actually fired at Taft's behest over a now-obscure budget issue several weeks prior to the agreed-upon retirement date. General Faurer, a bulldog to the end, went down fighting for what he believed in.¹²



(U) Caspar Weinberger

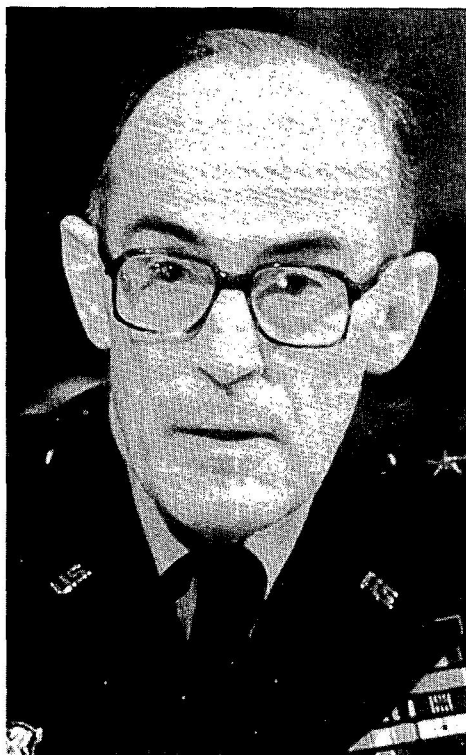
(U) *The Odom Administration*

(U//~~FOUO~~) Faurer's replacement in 1985 was a former armor officer who had become one of the Army's top Sovietologists. William Odom had had a tour at the Potsdam mission in the mid-1960s. The Potsdam mission was one of the best training grounds for attaché work, and it was followed six years later by a tour as assistant Army attaché in Moscow.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Odom was exposed to SIGINT, especially in Moscow, and over the years he developed a keen appreciation for the interplay of intelligence disciplines.¹³



(U) General William Odom

(U) When Zbigniew Brzezinski became Jimmy Carter's national security advisor, he plucked his former student, William Odom, out of the Army to serve on his staff. Said Brzezinski, "I knew him from an earlier association with me at the Research Institute on International Change at Columbia, I respected his views on Soviet military affairs and strategy, and I considered him to be an innovative strategic thinker."¹⁴

(U) After four years in the White House, Odom had gone on to serve as the deputy assistant chief of staff for intelligence in the Pentagon, and soon took over as the ACSI.¹⁵ His broad exposure to Army intelligence made him a prime candidate to succeed Faurer. And the Army had not had a director since Marshall Carter departed in 1969.

(U//~~FOUO~~) Odom brought a unique personality to the job. According to his deputy, Robert Rich, he was a good listener and a reasonable person to work for, who could

examine the intellectual facets of a decision and come up with the right answer. But he did not project this image. What most NSAers remember was a different Odom: "...ready, fire, aim; loud, boisterous, ranging over all kinds of intellectual territory, strategy of the nation, strategic concepts, tactical concepts."¹⁶ Many felt that he suffered from the typical disease of ivory tower intellectuals – hearing one voice only: his own.

(U//~~FOUO~~) Odom had a different perspective on NSA. He likened the job to that of commanding a specified command. It had, he liked to point out, operational control over three service components, a worldwide scope of operation, its own logistics system, its own training school, a unique research and development organization, its own procurement system, and so forth. Next to the DCI, it was the most powerful job in American intelligence.¹⁷

(U//~~FOUO~~) For a specified command, though, it lacked certain essentials. Most prominently, NSA had no staff system analogous to that of a military command. Without a staff, the director simply had to accept the judgments of his deputy directors, and had no independent means of managing actions or verifying information. It was a consequence of historical evolution at NSA, and it fitted NSA's unique way of doing business. Odom

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

battled the system his entire time at NSA, but felt that he never changed the way NSA operated.¹⁸

(U//FOUO) What NSAers remembered most distinctly from the Odom era were the Ten Thrusts (see Table 18). Originally written by Odom himself, these began as six thrusts relating to SIGINT, and focused primarily on maintaining NSA's edge in various technical disciplines such as cryptomath and in sharpening the focus of customer support. Harry Daniels, the DDI, took immediate exception to a list of thrusts which excluded INFOSEC issues, and submitted his own. Odom struck one of the original six from the list and added Daniel's five, to come up with a nice round number. It was a good list, just right for the mid-1980s. Odom did seem to understand the business.

~~(S//SI)~~ Table 18
General Odom's Ten Thrusts

1. Modernize the SIGINT collection and processing systems to cope with the changing target communications technology.
2. Integrate tactical and national SIGINT capabilities to satisfy more effectively military requirements in peace, crisis, and war.
3. Maintain and improve our capabilities to support diplomatic, economic, and other nonmilitary requirements for SIGINT support.
4. Maintain a large U.S. lead in cryptanalytic capabilities (both computer capability and personnel).
5. Design a framework for a survivable SIGINT system, under all conditions, including general war, which we acquire incrementally and through astute dual-use applications over the next decade.
6. Provide easily attainable, inexpensive, user-friendly Information Systems Security features.
7. Speed up research for major breakthroughs in the technology of computer security; at the same time, help industry manufacture more "trustworthy" computer products for defense and other government needs.
8. Establish a program to reduce significantly the HUMINT threat to Information Security Systems.
9. Provide modern, secure, user-friendly key management systems.
10. Remove the COMSEC block obsolescence condition by the end of 1991 and establish a program to protect against this condition in the future.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S//SI)~~ The most controversial thrust was to insure a survivable system. Fashioned during the Second Cold War, it made a lot of sense at the time. It became known eventually as Triangle, the project to insure the survival of the cryptologic system in wartime. Much of Triangle involved decentralization of the process. The Triangle plan used such then-unfamiliar terms as Theater Support Nodes and Regional SIGINT Support Centers. Funding Triangle amounted to the diversion of large amounts of money for a concept that many in NSA thought to be unnecessary. According to his successor, Rear Admiral William Studeman, there was a tendency at NSA to try to wait out the Odom directorship in hopes that Triangle would simply go away.¹⁹

(U//~~FOUO~~) Like Faurer, Odom worked for two bosses, Weinberger and Casey, but he managed the trick with aplomb. Within DoD he generally reported directly to the secretary of defense but, aware of the Faurer-Taft confrontations, carefully kept William Taft in the loop with occasional briefings. His real affinity, however, was clearly for Casey. The two got on well together, and Odom held Casey in high respect for his substantive knowledge of intelligence issues and his ability to deal with them off the cuff. They formed a united team in 1986 to try to stop the press from publishing leaks that damaged intelligence sources and methods.²⁰

(U) *At the White House*

(~~FOUO~~) NSA still enjoyed a special relationship with the White House. After a brief and fitful flirtation with the idea of bringing someone from State Department in to run the Situation Room, Richard Allen, the first of a long line of Reagan's national security advisors, chose NSAer [] as his Situation Room chief. [] stayed during the first Reagan administration, long enough to get a clear picture of how intelligence issues were handled.

(U//~~FOUO~~) Under Carter, intelligence and national security topics got a highly organized, if somewhat egocentric, direction from Brzezinski. But this process never got started under Reagan. The leaks, the employment of SIGINT to push a foreign policy agenda, the disjointed way in which intelligence in general was treated (culminating in the Iran-Contra imbroglio) was a true bill of the process. For in fact, there never was a process under Reagan.

(U) Reagan modeled his White House administrative procedures after Nixon, with a strong staff chief, Edwin Meese. Everything was routed through Meese, and even Richard Allen contacted the president through him. This cut off the president from direct access to intelligence, and when Allen departed he had never been able to establish a relationship with Reagan. His successor, Judge William Clark, accepted the job only on condition that he enjoy access to the president, but the damage had been done, and during the first Reagan administration the White House never had a strong national security advisor, nor did it ever have a system in which tailored, focused intelligence arrived in the Oval Office. The job became a revolving door, with first Allen, then Clark, then Robert McFarlane, John Poindexter, and finally Frank Carlucci, cycling through. According to [] the

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

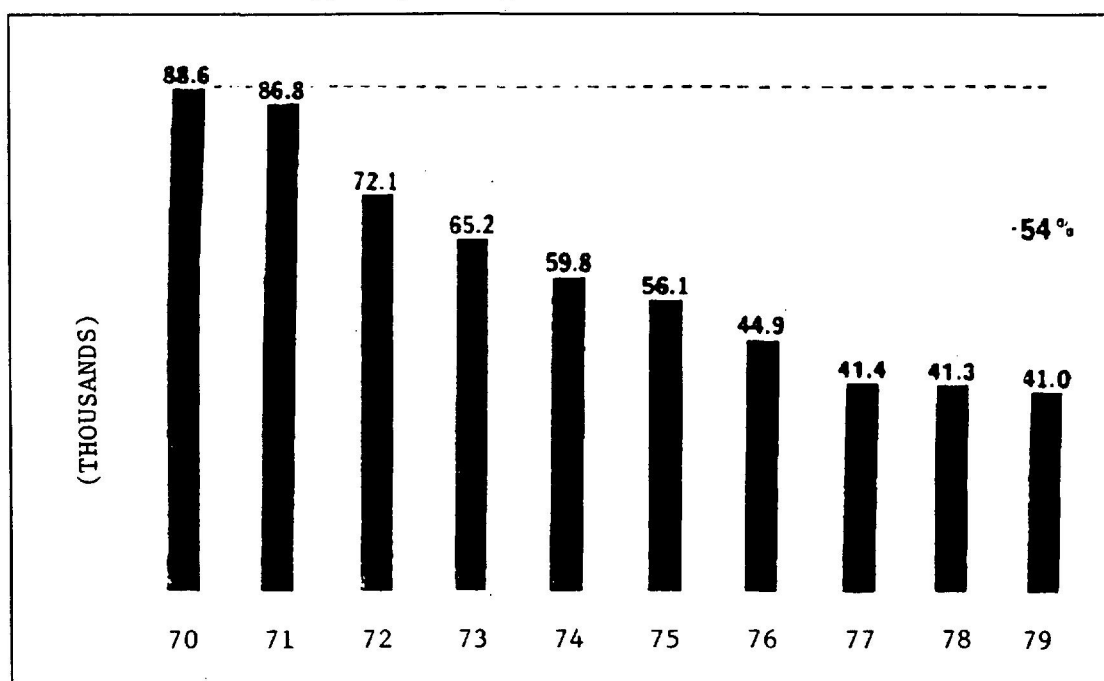
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

process, if there was a process, lacked substance, and difficult intelligence issues were dealt with in a superficial way.²¹

(U//~~FOUO~~) SIGINT RESOURCES IN THE REAGAN YEARS

~~(C)~~ Ronald Reagan inherited a cryptologic system in parlous shape. Manpower over the previous decade had dropped from 88,600 to about 41,000 (see Table 19). At first glance, money appeared to be on the increase, but that was before inflation was factored in. The 1970s was a decade of high inflation, and the gap between current and constant dollars had widened progressively through the ten years (see Tables 19 and 20).

~~(C)~~ Table 19
Cryptologic Manpower, FY 1970-FY 1979²²

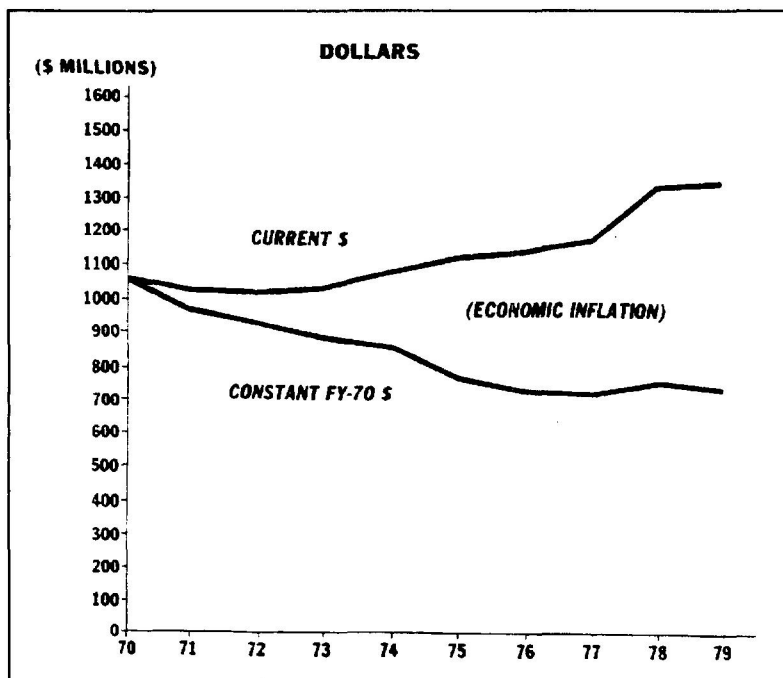


~~(S)~~ The Reagan administration began pumping money back into intelligence programs. From the 1980 through 1986 fiscal years, the overall cryptologic budget rose 152 percent (see Table 21), a breathtaking ascent unmatched since World War II. The most spectacular growth was in overhead systems, which by 1988 had become fully 43 percent of the total SIGINT pot.²⁴

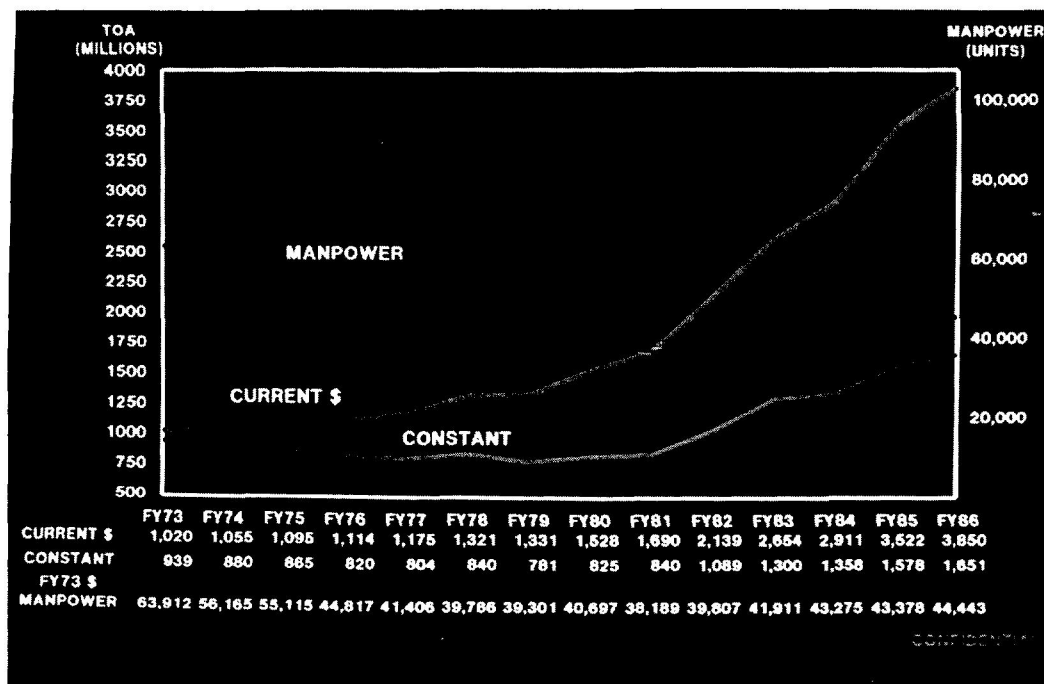
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~(S)~~ Table 20
CCP Funding
During the 1970s ²³



~~(S)~~ Table 21
The Cryptologic Budget, FY 1973 Through FY 1986 ²⁵

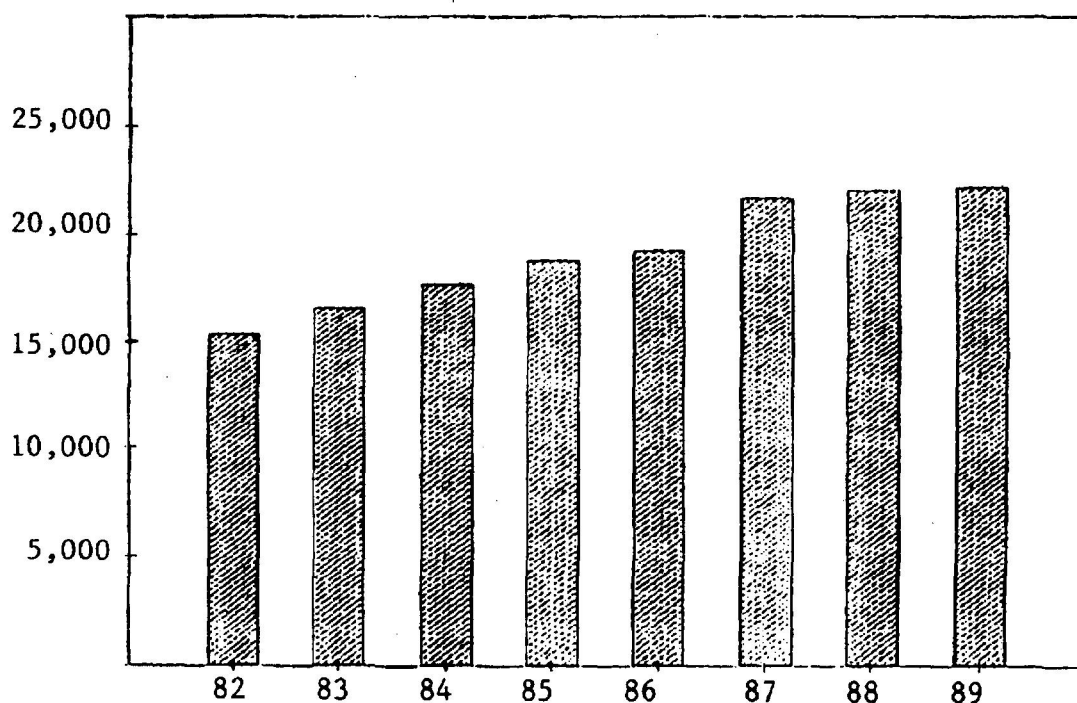


~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~(S)~~ Along with money came people – lots of them. NSA's total population rose by 40 percent during the 1980s. Beginning with 19,018 in 1983, the Agency's population peaked in 1990, just before the collapse of the Soviet Union, at a total of 26,679. The dramatic rise was across the board, civilian and military, but was most pronounced on the civilian side (see Table 22). While the military component rose 24 percent, the civilian side increased by 46 percent.²⁶

~~(S)~~ Table 22
NSA's Full-Time Civilian Strength, 1982-1989²⁷



(U) Almost a thousand billets came to NSA in 1986 as the result of a decision by the General Services Administration to turn over support operations. Part of a broader plan to relinquish maintenance to single-tenant government-owned facilities, the GSA plan for NSA involved both maintenance (542 billets) and security guards (381 people). In October of 1985 Terence Golden, administrator of GSA, met with General Odom, and in April of 1986 Odom formally accepted the plan.²⁸

(U) The hiring glut took place mostly at the lower grades, but NSA's average grade level stayed in the range of GG-10, substantially higher than the government-wide average. What took place to level it out was rapid promotions. The 1980s saw a major surge in promotions, with a dramatic spike in fiscal year 1985. But the downside was the slide in average experience level, as new hires replaced old hands.²⁹

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

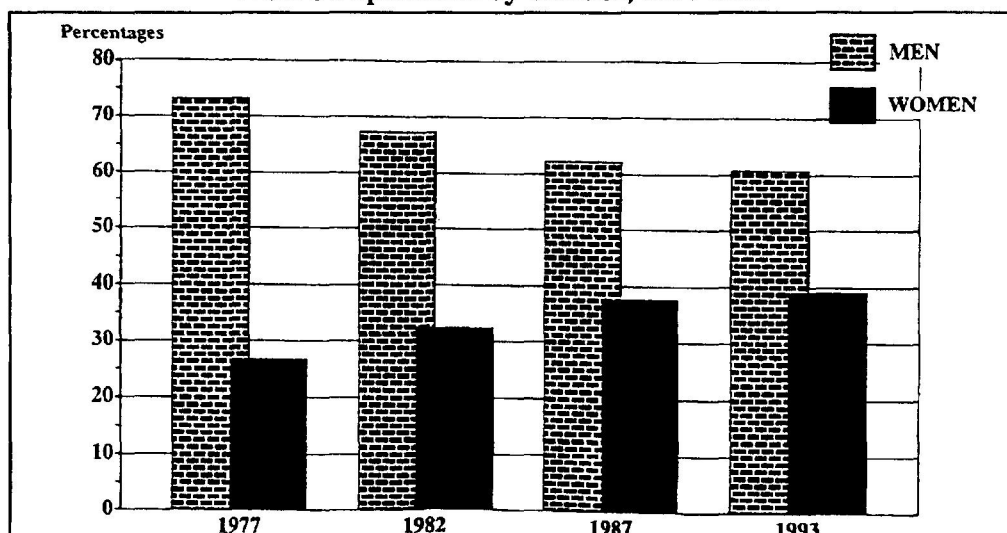
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U//~~FOUO~~) In the light of the rapid civilian hiring program, the military contribution to cryptology became a source of concern. As the percentage of the military population declined, its influence would also inevitably decrease, along with military cryptologic experience levels. This could unfavorably impact support to military operations. Moreover, rapid civilian hiring was taking place primarily out of colleges, and military conversions, once a dominant source of civilian manpower, had declined by 1982 to 6.7 percent of all hiring actions. In 1988 Dr. James Donnelly headed a panel that looked at military manpower in the cryptologic system. Donnelly's main concern was the increasing congregation of military billets at the front end of the system, leaving very few at NSA, where much of the "technology transfer" had to take place.³⁰

(C) The fastest-growing segment of NSA's population during the 1980s was actually the part-time work force. A product of the Carter administration, the part-time segment grew from 330 in fiscal year 1981 to a peak of 1,044 in 1990. This explosive growth outstripped all other hiring areas, and a significant percentage of hiring actions (8.7 percent in fiscal year 1982) came from part-time to full-time conversions. One major reason for the increases in part-time employees was that NSA management discovered that they did not count against the Agency's official strength. It was thus a way to increase personnel without appearing to do so.³¹

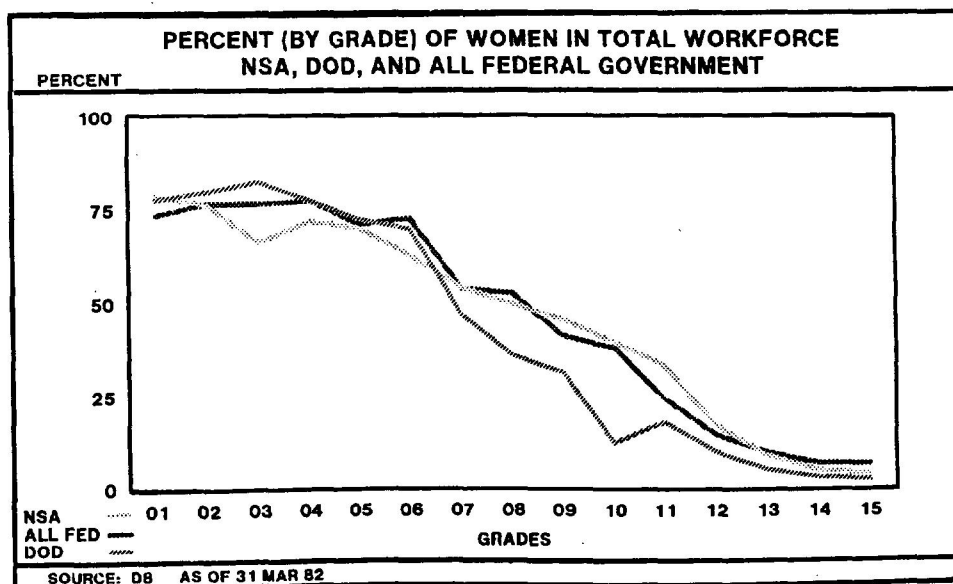
(U) As the work force grew, so did the percentage of women and minorities on the rolls. From 1977 to 1993, for instance, the percentage of women at NSA grew from about 26 percent to 39 percent (see Table 23). But the percentage of women by grade declined dramatically as grade rose, even though the decade opened with NSA's first female deputy director, Ann Caracristi. Women constituted a majority up through grade eight, but at that point the chart dipped dramatically, and women made up less than five percent of the grade fifteens. This compared closely with the overall government statistics, as Table 24 shows.

(C) Table 23
NSA's Population by Gender, 1977-1993³²

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Table 24
 Percentage of Women by Grade at NSA, DoD and Federal Workforce³³



(U) The concentration on college-level hiring increasingly tipped the scales toward a more highly educated workforce. In the ten fiscal years from 1972 to 1982, for instance, the percentage of employees with college degrees increased 24 percent, while those with advanced degrees increased 125 percent. Those with less than two years of college actually declined by 22 percent.³⁴

(U) More people required more space. And as personal computers became more common (during the decade 70 percent of the workforce was provided with a PC), people tended to require larger offices. So NSA launched an unprecedented building boom which resulted in the addition of 240,000 square feet per year during the decade. Much of it was leased space. The International Tower Building came under an NSA lease in 1980. The following year the Agency began leasing the new Airport Square buildings, which were replacing woods and fields in the vicinity of the FANX complex at BWI.

That same year General Faurer broke ground on Ops 2A and Ops 2B, which were dedicated by President Reagan five years later. In 1990 the new Research and Engineering building was dedicated, to add to the Special Processing Lab (opened in 1988) and numerous leased facilities in the general Fort Meade vicinity. (see Table 25)³⁵

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~



(U) Construction of Ops 2A

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Dedication of Ops 2A and 2B by President Reagan

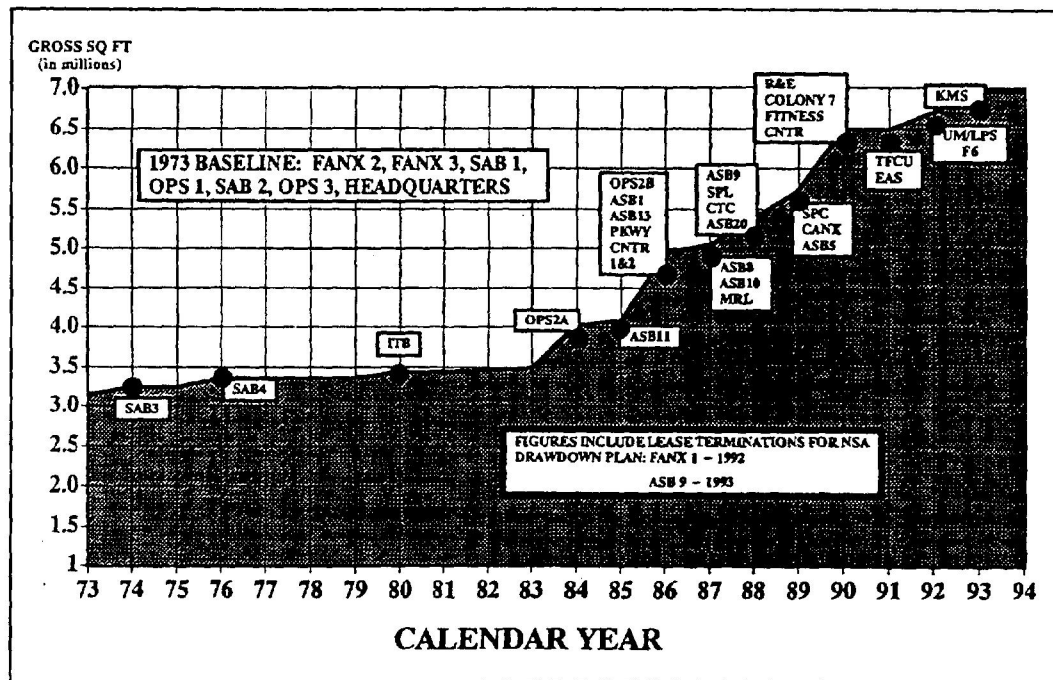
(U) One solution to the space problem was to go upward. In 1983 NSA awarded a contract to American Seating Company to provide and install systems furniture, which would permit the workforce to add personal computers and other office aids without increasing floor space per person. The original contract provided for some 8,000 workstations at a price of about \$5 million. But it was only the beginning, and by 1993 approximately 20,000 workstations had been installed at a cost of \$60 million. This improvement came in the late stages of an earlier movement to provide raised flooring. Begun in the basement of Ops-1 in the 1960s, raised flooring was originally installed only in rooms with computer mainframes. As smaller computers took over the Agency, people got tired of tripping over cables strung across tile floors from one machine to another. Slowly, workspaces were vacated and raised flooring installed. By 1993 some five million square feet of raised flooring had been installed in NSA buildings at Fort Meade. It not only got unsightly and potentially dangerous electrical cables off floors; it had the attendant benefit of providing carpet tiles, which reduced noise (and looked nicer).³⁷

(U) In the early days Fort Meade had been serviced (excepting only the Baltimore-Washington Parkway) by narrow, winding roads going east and west to bedroom suburbs

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Table 25
Growth of NSA Space from 1973 to 1994



of Severna Park, Glen Burnie, Laurel and Columbia. The drive to either Severna Park or Columbia commonly took half an hour or more, much of it spent waiting in a long snake of cars twisting through the Maryland countryside. With NSA population projections going virtually through the roof, NSA began looking at an environmental overhaul. In the early 1980s the State of Maryland began widening Route 32 both toward the east and west. It was called the Patuxent Freeway project, and as sections became functional in the late 1980s and early 1990s, traffic congestion around Fort Meade declined (but didn't go away).³⁸

(U) THE CRYPTOLOGIC SYSTEM IN THE 1980s

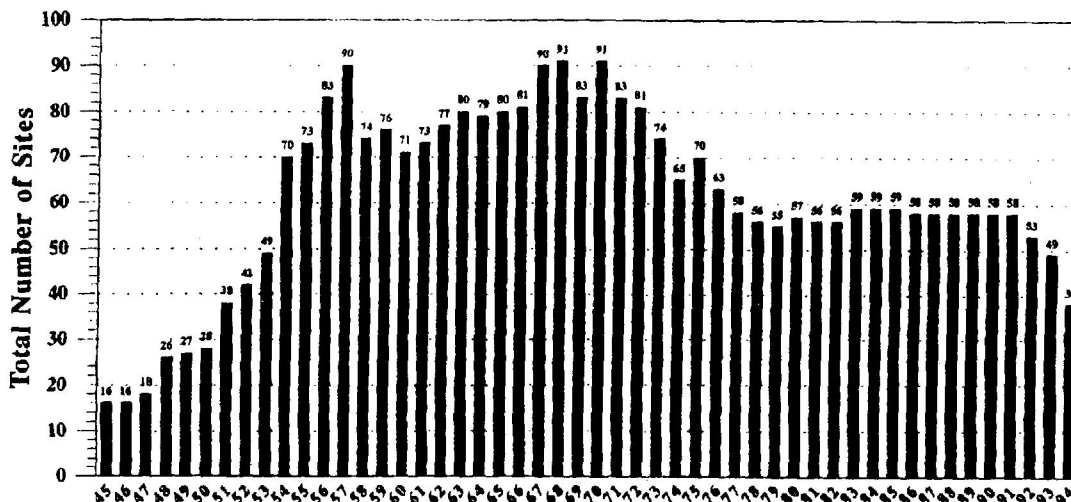
~~(S//SI)~~ The 1980s were the decade when NSA's reliance on HF collection finally came to an end. Rumors of its death, greatly exaggerated for many years, caught up with reality early in the decade. The cryptologic field system began the 1980s at the bottom of a ski slope (see Table 26). But the money that Reagan pumped into the system did not appear to benefit that system. The size of the conventional field site system stopped declining, but remained flat throughout the decade.

~~(S//SI)~~ The Army was hardest hit by the reductions of the 1970s. In 1972, ASA had eighteen field sites; a decade later, only nine. Gone were five sites in Southeast Asia and

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S)~~ Table 26
Cryptologic Field Sites, 1945-1994



three in Germany, plus scattered locations in Ethiopia, Taiwan, Virginia and California. The only true addition was the INSCOM component of the cryptologic conglomerate at Kunia. To a degree this reflected the fact that Army SIGINT collection was the least technologically sophisticated of the services (see map page 280).

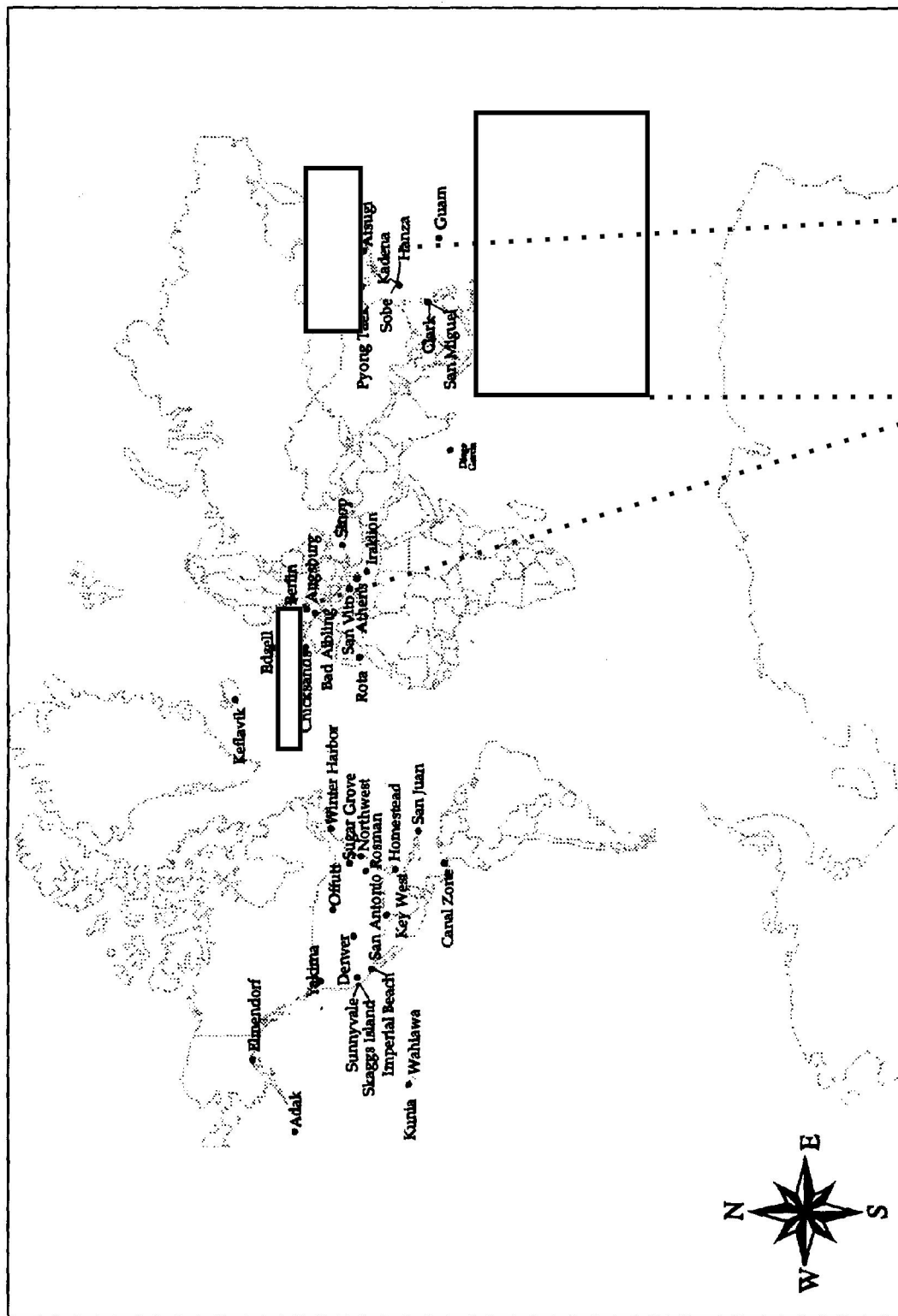
~~(S//SI)~~ Air Force field sites also dropped dramatically, from twenty-six in 1972 to only fifteen a decade later. Security Service lost three sites in Southeast Asia, while base consolidations in Germany and Japan resulted in the closure of four sites. Political forceouts in Turkey and Taiwan caused three site closures. If Security Service base closures were not as severe as with ASA, it was due in large part to the fact that the Air Force sites, and targets, were more technologically sophisticated. Security Service was thus better positioned to maintain its collection posture against modern communications. The Navy was least affected, at least in terms of numbers of sites. Thirty field sites in 1972 declined to twenty-seven ten years later.

~~(S//SI)~~ The field system was growing only in terms of joint and NSA-managed sites. Seven sites in 1972 had expanded to eight, despite the loss of two sites, in Asmara (lost during the Ethiopian Revolution of 1975) and Shemya, Alaska. Two [redacted] sites, [redacted] and Rosman, appeared, along with a joint Army-Air Force wideband site at San Antonio, Texas. The growth in this area was indicative of where the money was going - to high-tech collection.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~



PL 86-36/50 USC 3605

~~(S//SI)~~ Field site locations as of 1986

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~**(U) The FSCS Study**

~~(TS//SI//TK)~~ In 1983 NSA began a study of the increasing cost of the system programmed as the replacement [REDACTED]. Called the NSA ELINT Overhead Mix Study, its conclusions caught the attention of the DCI and Congress, and in December of that year Vice Admiral Burkhalter, director of the Intelligence Community Staff, established the Future SIGINT Capabilities Study (FSCS). Burkhalter broadened the study to the entire SIGINT system. The objective was to match existing and programmed systems against assumed target changes and to identify the gaps. Phases I and II would look at everything but Overhead; Phase III would address only satellites.³⁹

~~(C)~~ The resulting documents highlighted the increasing technological sophistication of the targets, and they marked a watershed of sorts. It was no longer possible to think of the SIGINT system in the same terms as professional cryptologists had thought of it since World War I. The HF system had become secondary to more sophisticated collection in the higher frequency ranges.

~~(S//SI)~~ The study focused on target changes that would affect collection and processing. Increasingly sophisticated target cryptography took a place on the "threat list," but only a minor place. The major threats were high data rates, digitization (as opposed to the more traditional analog signals), low probability of intercept techniques like frequency hopping and spread spectrum, the use of wider bandwidths and higher frequency ranges, advanced radar techniques, and the growing use of communications satellites. The study's conclusions depicted a communications target that centered on almost everything but HF manual Morse communications.

~~(TS//SI//TK)~~ The existing SIGINT system was deficient in almost every capability. It would need to migrate to [REDACTED] and to SIGINT satellites that could access communications, like microwave and military multichannel systems, deep in the heart of the target countries. The volumes would be so huge that front-end filtering and processing prioritization would be essential. [REDACTED]

[REDACTED] SIGINT satellite geolocation must be improved and its reach expanded. SIGINT satellite systems like [REDACTED] would have to work together in an interlocking mode to achieve the needed geolocation capability.

~~(S//SI)~~ Though FSCS concentrated on hardware and software, it did stray into manpower implications. Despite the contraction of the traditional HF field collection system, the workforce would have to grow to handle the massive volumes of material to be processed. Moreover, the skill mix would move rapidly into high-tech areas, and the people hired would be engineers, cryptomathematicians, and computer systems designers. The armed services did not produce people like that - NSA would have to hire increasingly from colleges or private industry to find the kinds of people it needed. Retention would be more difficult as NSA would have to compete with private industry for college-trained

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

technical people. The federal salary structure simply could not compete in these areas – job satisfaction would have to be the carrot.⁴⁰

~~(TS//SI//TK)~~ To a workforce of the late 1990s grown accustomed to the new communications challenges, this sounds very familiar. In the mid-1980s, it was visionary. The FSCS study spawned a plethora of committees looking at various aspects of the problem. One committee predicted that the cryptologic system would require some \$20 billion more money in the CCP base through 2000 in excess of what had already been funded. At field sites alone, \$11 billion would be needed to deal with complex signals, while the need for system survivability would require another \$3.6 billion. Satellite systems would require expanded frequency coverage and increased geolocational capability. Computer systems had to change to defeat Soviet encryption technology. The only area where money could actually be saved was in the satellite programs themselves. There, the plan was to combine the three SIGINT satellites [redacted] into a single follow-on system.⁴¹

(U) "Battlestar Galactica"

~~(TS//SI//TK)~~ The plan for an overall SIGINT system was dependent on the resolution of an ongoing donnybrook over overhead resources. The dispute centered on the three competing SIGINT collectors downlinking to [redacted] and Denver [redacted]. The rival systems had evolved over time in response to crash requirements, and each had a separate sponsor and separate constituencies. Many who had been involved in the birth of the three systems acknowledged the illogic of competition at that level, and some dreamed of amalgamating them into one program.

~~(TS//SI//TK)~~ Program A, the [redacted] was an Air Force program in which NSA was a close partner, and Lockheed Missile and Space Corporation was the prime contractor. Program B was the CIA program, and its prime contractor had always been TRW. CIA pushed for a single system, and in December of 1985 the DCI, William Casey, decreed that the FSCS study group would operate under the assumption that the system would evolve into a single, one-system-does-all program. It would replace five programmed [redacted] and [redacted] satellites with four satellites operating within an integrated system. The major competitors, Lockheed and TRW, would submit proposals for the consolidated system. The stakes would be huge – the winner would emerge with the entire geostationary SIGINT satellite program, while the loser would become a subcontractor. The [redacted] system, being a highly elliptical program essentially different from a geostationary system, was not to be modified. The proposed system was so grandiose that it was referred to by Admiral Inman as "Battlestar Galactica."⁴²

~~(TS//SI//TK)~~ The outlines of the new system were revolutionary. It would eventually downlink to a single ground station in the continental U.S., which would distribute signals to various processing locations for customized follow-up. Signals would be relayed through communications satellites to the ground station, thus allowing a satellite to communicate with a location beyond the radio horizon and freeing SIGINT satellites from the geographic

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

tether that had always limited them. [REDACTED]

[REDACTED] Much attention would be paid to improved geolocation accuracy and better crosslinking among the satellites. Satellites would have better receivers with more flexible tuning options. The four balls would be launched from 1992 to 1995; the program cost would be \$9.5 billion, including \$1.1 billion for improved SIGINT processing.⁴³

(TS//SI//TK) The first satellite in the series would be launched [REDACTED] and would [REDACTED] which would become the interim control and processing center. [REDACTED] would be positioned as needed in [REDACTED] nodes, and would have [REDACTED] which would be called Gateway. This center, whose location had not been chosen [REDACTED] were both candidates), would take satellite control [REDACTED] and could manage the entire system. [REDACTED] would be the initial [REDACTED] (similar to the role for [REDACTED] and [REDACTED] would be the backup, [REDACTED] as a system location.⁴⁴

(S//SI//TK) NSA, being the signal processing organization, participated in all the system discussions and studies. The Agency generally kept its political opinions to itself, confining its advice to technical assessments of the feasibility of various approaches. Robert Hermann, director of NRO in the early 1980s, once said "NSA didn't care, shouldn't have cared."⁴⁵ But under the surface there was growing concern at the Agency about costs. An NSA advisory board wrote to General Odom in July of 1985 that SIGINT satellite costs in the National Reconnaissance Program were growing so fast that they could squeeze out some favored programs in the CCP. It would be a good idea to get a handle on satellite program costs, and soon.⁴⁶

(S//SI//TK) In fact, NSA's role in the overhead system was not so sterile as it appeared from the outside. Within the vortex was a fierce bureaucratic battle to control the SIGINT satellite business. Part of this undoubtedly stemmed from the philosophy of SIGINT management that NSA had always lived by. In the United States, SIGINT was monolithic, and control was vested in a national manager. But the overhead business was controlled by the NRO, and when NSA tried to intervene, either to manage the satellite planning and programming, or to exercise day-to-day direction over satellite operations, it was on NRO's turf.

(TS//SI//TK) But viewed from NSA's perspective, the issue revolved around a management system that was inefficient from a cost standpoint. NSA managers believed that NRO was paying far too much to its favored contractors for satellite system design, launch and operation, and that this was impacting on money that should have been available for other SIGINT programs. Moreover, if NSA people could control mission ground site operations, they would have a much more responsive system, and could order satellite collection priorities according to the requirements of the entire SIGINT system. In 1981, Admiral Bobby Inman approached former NSAer Robert Hermann, then the director of NRO, to get a change in the rules by which spacecraft were controlled. From the strong-

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

willed Inman's standpoint it made perfect sense to control spacecraft operations from NSA, but an equally strong-willed Hermann told the NSA director that if NSA controlled the programs it would have to fund them, which meant taking the heat in Congress for a large slice of the NRO budget. There was no resolution of the dispute, and the management of SIGINT satellites remained as it had been.⁴⁷

~~(TS//SI//TK)~~ Despite disagreements at the top, NSA and NRO managed to cooperate in the creation of a new system tasking center, the Overhead Collection Management Center (OCMC). It resulted from a July 1983 conference between William Kvetkas (chairman of the SIGINT Committee), Robert Rich (deputy director of NSA) and Jimmy Hill (deputy director of NRO). Kvetkas could not secure agreement even in such a small group, so he wrote a memo to John McMahon (deputy DCI) proposing a new joint tasking center on the DEFSMAC model. (Attached to the memo was a two and a half page nonconcurrence from Hill.) Kvetkas presented McMahon with three options, and McMahon selected one which created an OCMC at NSA headquarters, and permitted DIRNSA to name the director, the director of NRO to name the deputy, and the DCI to name the chief of requirements. This permitted conflict resolution at a technical level, and resulted in a joint organization that soon proved its worth.⁴⁸



(U) George Cotter

~~(TS//SI//TK)~~ Disputes over satellite system control continued into the program. NSA wanted to be the host for the eastern gateway that would replace [] while NRO demanded to exercise its customary host role. NSA wanted to handle system programming and acquisition, not just the ground processing equipment. NSA wanted to handle site and operations security, but NRO, which had always controlled overhead security, forcefully rejected this and all other NSA proposals.⁴⁹ In fact, NSA proposed nothing less than a revolution in the way SIGINT overhead systems were handled. The most extreme view, promoted by Agency senior George Cotter, melded the satellite business into the U.S. SIGINT system. NSA would plan, program and acquire SIGINT overhead systems; it would budget for all overhead systems; it would manage contracts; it would control spacecraft operations; it would control tasking, balancing satellite tasking with other parts of the SIGINT system;

it would rid itself of the special NRO codewords, and would marry the SIGINT and overhead security systems, doing away with overhead compartments at NSA.⁵⁰

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~(TS//SI//TK)~~ As an alternative to the expensive new system, some at NSA pushed an idea variously called "cheapsat" or "frugalsat." The idea which had been around for years, revolved around the need to support U.S. military operations. Most of the emitters in use

[redacted] and, It would be far simpler to support military operations with a small, cheap satellite dedicated to mobile multichannel communications. In the mid-1980s the idea acquired a good deal of thrust when NSA discovered communications [redacted]

[redacted] in the low VHF range. Once again the idea of an "SMO satellite" bubbled up and got a thorough study within NSA. It never mustered enough support, and while NSA officially supported the concept, it was clearly a controversial item. Cheapsat always made the "options list," but it was never high enough up the queue to be funded.⁵¹

~~(TS//SI//TK)~~ The only part of the proposed system that NSA could call its own, absent a cataclysmic reorganization of the SIGINT overhead system, was processing. In the summer of 1986, NSA established a project to organize the ground processing system, called

[redacted] would be very expensive

- a total of over \$957M. (see Table 27)⁵²

~~(TS//SI//TK)~~ By mid-1987, NSA was becoming increasingly hostile to the new system as a solution. There were several reasons, any one of which might have led to a negative vote. First, cryptologic spending guidance from the DCI had begun to diverge from CCP guidance from the secretary of defense. This phenomenon had begun in 1983, and by 1987 the gap was some \$236 million per year and growing. Somehow it had to be closed, and overhead was a prime candidate. The new system would require huge expenditures for processing, first at [redacted] and later at [redacted]. Processing upgrade costs stood at about \$1 billion with the new system, but "only" \$600,000 without. This figure alone could close the gap or reduce it to a manageable size.

~~(TS//SI//TK)~~ Second, it was beginning to dawn on NSA that perhaps it was targeting the wrong sorts of signals. The new system was designed to intercept and process digital microwave signals, but the Soviets were not switching from analog to digital nearly as fast

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~~~(S//SI)~~ Table 27[] Funding Profile ⁵³

FY 86	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
\$4.28M	12.35M	39.79M	208.M	265M	207.2M	219.75M

as had earlier been projected. As each year went by and the Soviets did not meet NSA's projections, the system looked more and more like a turkey.⁵⁴

~~(TS//SI//TK)~~ In the fall of 1987, after a war of paper between NSA and the intelligence community staff, General William Odom took NSA's case to Congress. He had several complaints. NSA, he felt, could do everything with a more finely tuned [] and [] system than it could with a single new system, and spend less money at the same time. He criticized the new system for its lack of flexibility; with two systems NSA had a better chance to support military commanders, while with one system the capability to divert individual satellites to "hot spots" around the world would diminish. It was technically superior in ELINT, but less satisfactory in COMINT, which NSA felt was more important. And he did not like the vast sums required. "I thought [the new system] was sheer robbery of the public purse," he said later.⁵⁵

~~(TS//SI//TK)~~ Much of NSA's dislike came down to system control. Odom felt that NSA's views had not been taken into account by NRO. He viewed NRO as a vast bureaucracy in which two programs, A and B, warred with each other, to the detriment of the national SIGINT manager. NRO tended to view the issue as a simple competition between a new program on the one hand, and two old programs [] on the other. NSA looked at it in the context of the entire SIGINT system, and from that perspective a decision that seemed right to NRO looked wrong to NSA.⁵⁶

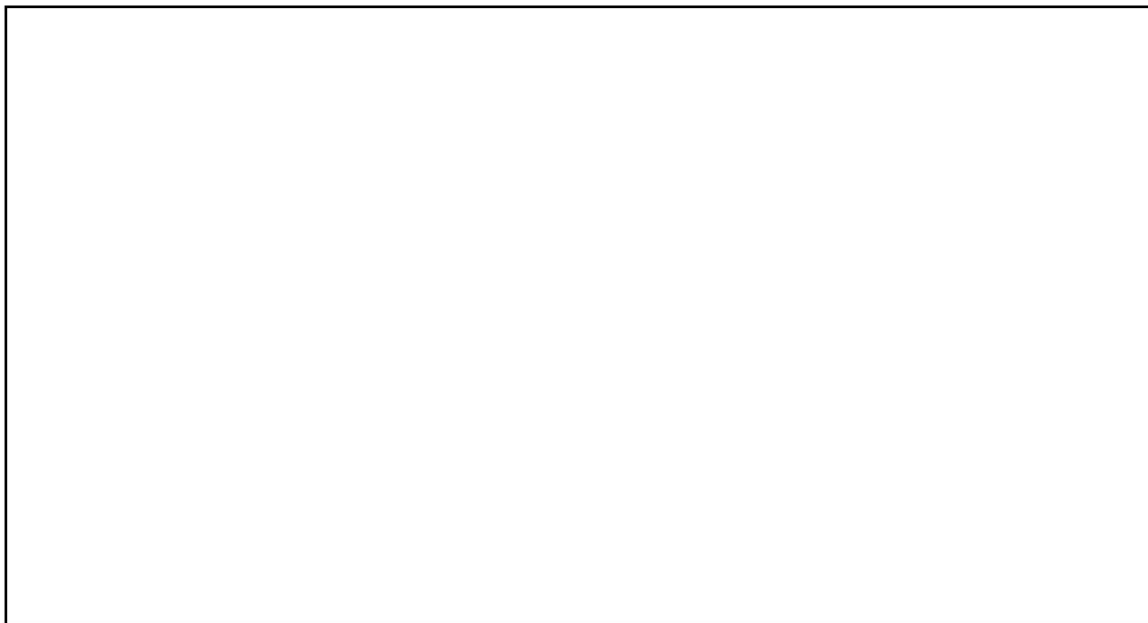
~~(TS//SI//TK)~~ In January of 1988 the new DCI, Judge William Webster, cancelled the new system. In a letter to Senator David Boren of the SSCI, he explained that recent budget cuts put too much of a squeeze on the program. The NRO could save \$4.3 billion by not deploying it, and intended to do so. What he did not say was that NSA, the chief operator of the SIGINT system, was now in active opposition. But this was not news to Boren, owing to Odom's testimony on Capitol Hill.⁵⁷

(U) Comsat

EO 1.4.(c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~



(U) Rosman, North Carolina

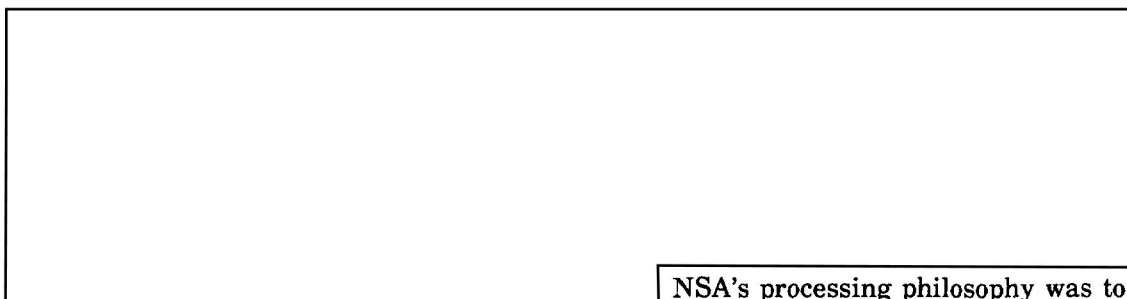


~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~



(U) Misawa, Japan

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605



NSA's processing philosophy was to filter channels at the front end and return the cream to Fort Meade using high-speed communications. This demanded smaller, faster demodulators and demultiplexers, and

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

high-speed communications packages. A whole range of equipment was specially designed [redacted] by NSA engineers. When, in 1984, NSA selected the IBM PC XT as its standard terminal [redacted] . . . also adopted it. Not only did the XT cost about one-fourth as much as the terminal it replaced, the Teletype Mod 40, but it matched up perfectly with the equipment in use at Fort Meade. In effect, [redacted] underwent the same revolution in technology that Third Parties did when NSA finally took over those arrangements. Common equipment and common procedures turned out to be much more efficient.⁶²

(TS//SI) When NSA took over [redacted] in 1978, the Agency found an ESC team [redacted]

[redacted] NSA had the good fortune to inherit the [redacted] and life was easier as a result.

[redacted]

(TS//SI) The cumulative improvements led to boom times [redacted] From 1979 to 1986 [redacted] In 1979 [redacted] contributing to about 18 percent of NSA product reports, while in 1986 the figure was 34 percent. This was achieved even though [redacted] and 5 percent of the Consolidated Cryptologic Program (CCP).⁶⁴

EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~**(U) Cryptologic Communications**

~~(S)~~ No area of cryptologic operations was expanding faster than communications. A chart of communications capacity from 1973 to 1993 (Table 28), first printed in the *Quarterly Management Review* for second quarter of 1994, depicted almost unbelievable numbers. Most dramatic was the worldwide capacity, which had increased by about 1,000 percent. Yet the system was being operated by about the same number of people as it had required twenty years earlier.

~~(S//SI)~~ Table 28
Cryptologic Communications, 1973-1993

	1973	1993
Worldwide capacity	3 MBS	300 MBS
Number of circuits	746	5500
Messages annually	130,000	117 million
Secure phone systems	20 locations	150 locations
Instruments	11 thousand	34 thousand
Cost of communications	2% of CCP	5.5% of CCP
Manpower	1091	

PL 86-36/50 USC 3605

(U//FOUO) NSA had become the largest single user of the DSSCS system, and by the early 1980s had outrun the ability of the DoD system to support it. The only answer was to lease large numbers of commercial circuits, from landline and microwave to satellite.⁶⁵

(U//FOUO) Internally, NSA replaced its communications terminal system under a new project called EMBROIDERY. Under EMBROIDERY every communications terminal became a computer, just as field site collection positions were being computerized. Using off-the-shelf IBM equipment, NSA outfitted its Holder, IDDF/Underprop, OCEANFRONT, TIDE, TIDEWAY, and DAYSEND communications systems with new equipment and new methodology. TRAINMASTER, the field site portion of the system, replaced STREAMLINER, which had been deployed in the mid-1970s.⁶⁶

(U) NSA's impressive communications design capability was sometimes employed in the service of other organizations. This was the case with a system called Umstead, a commercial design originally adapted for government use by an NSA engineer named [] to transmit voice and data via satellite. It was light, mobile and inexpensive, and looked like the answer to an Army tactical communications problem. The Army's problem came into rather stark relief during a large 1981 exercise called Crested Eagle. Army tactical forces simply lacked enough communications channels to carry what they needed, and intelligence got such a low priority that little of it got to the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

customers. Sixty percent of the signals intelligence traffic had to be couriered, and much of it was still in courier two weeks after the exercise had ended.

(U) Through mid-decade, top Army field commanders insisted that Umstead would solve the problem. But it was opposed by Signal Corps generals on somewhat obscure grounds, and was never purchased. Umstead was used on a few occasions by NSA, but never achieved its true potential, and wound up sitting on the shelf.⁶⁷

(U) Cryptologic Computers

(U//~~FOUO~~) If the 1960s and 1970s were the era of mainframe computers, the 1980s were an era of small systems. By the late 1970s the mainframes at Fort Meade were becoming so congested that they looked like the Beltway at rush hour. As access time increased, a movement away from mainframes accelerated. In the early 1980s computer companies were beginning to produce personal computers in large quantities at low prices, and NSA managers began defecting to these systems. Kermit Speierman and Walter Deeley were early proponents of personal computers and off-the-shelf software.

(U//~~FOUO~~) The improved efficiency and cost effectiveness of the computer-on-every-desk approach was counterbalanced by a strong trend toward nonstandard equipment and software. With so many products available in stores, it was difficult for NSA's computer people to keep up. The driver was maintenance: when hardware and software malfunctioned, it was impossible to keep everything running. Moreover, central control over formats, file access, etc., the basis of the cryptologic system's effectiveness, could be lost. Chaos could be the result.⁶⁸

(U//~~FOUO~~) To save the situation, NSA tried to standardize PC hardware. In 1984 it issued a request for proposal for an Agency Standard Terminal Workstation (ASTW). The IBM PC XT, a relatively new entry in the world of personal computers, won the award. It was a big win: the contract was ultimately valued at \$199 million, and NSA bought 21,000 units. The next year the Agency awarded a contract for an Agency Standard Host (ASH), which would interconnect the ASTWs. American Telephone and Telegraph won the contract, valued at \$150 million. Seven hundred twenty systems were finally sold to NSA.⁶⁹

(U) In the early days, most personal computers ran on the DOS operating system, but it was not suitable for internettted systems. Kermit Speierman of NSA discovered that Bell Laboratories had devised an operating system called UNIX, which was at the time the only system that operated in a multi-user, internettted environment. UNIX became the dominant operating system in the 1980s.⁷⁰

(U//~~FOUO~~) Computer power was the essential ingredient in cryptanalysis. In the 1970s NSA had forged ahead with the help of supercomputers, first from Control Data Corporation (CDC) and later from Cray. But the early 1980s were a period of tension in the supercomputer business. The Japanese were rumored to be about to enter the business, and in view of their devastating impact on the commercial VCR business, there

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

was a potential threat to national security if American supercomputer companies were to be bested or even driven out of business. These problems were part of the background noise of 1982, when NSA's Kermit Speierman was doing some work at Los Alamos and talking to scientists there about NSA's computer power problems. The outgrowth of those discussions was a decision to jointly host a conference at NSA in 1983 on supercomputer problems. Called "Frontiers in Supercomputing," the week-long conference focused on how to design and build faster supercomputers. It was clear that serial processing would not be fast enough – the industry needed massively parallel processing to have a chance of staying ahead.⁷¹

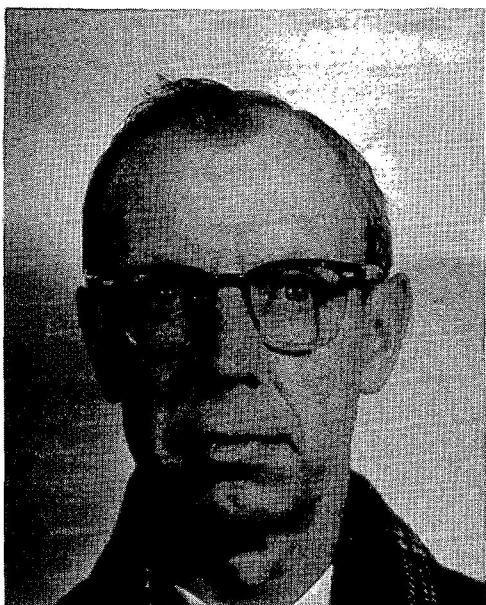
(U//~~FOUO~~) General Faurer, who gave the closing speech, had become convinced that a permanent institute was needed, and asked Speierman to create one. Working through an NSA committee, Speierman put together a concept for a Supercomputer Research Center. Faurer needed \$16 million and a lot of executive push, so he briefed the outlines of the research center around Washington. He was able to muster support from every quarter but the JCS and the Office of the Secretary of Defense, where his boss, William Taft, was staunchly opposed. But Taft was ultimately outflanked, and NSA began looking for a home for the center. Although Boston and North Carolina were considered, NSA finally selected the nearby Bowie area, and on November 27, 1984, Maryland governor Harry Hughes announced from the steps of the State House in Annapolis the creation of the Supercomputer Research Center.⁷² The center would not have survived without Faurer's forceful intervention at the DoD level. Said Speierman several years later, "...he was completely convinced. I think that's a real tribute to him. And he never flinched from that conviction. Without that 100 percent conviction on his part...I don't think any of this would have happened."⁷³ It was one of the disputes with Taft that resulted in Faurer's early departure from NSA.

(U) Computer Security

(U) In 1965 a small computer science firm called SDC of Santa Monica, California, became concerned about security of their computer products. With computer networking in the offing, computer files could become vulnerable to unauthorized users, almost as if a safe had been jimmied. SDC hosted a conference attended by several computer companies and by the head of the Rand Corporation computer sciences division, Dr. Willis Ware. Ware quickly took the lead on the issue.⁷⁴

(U//~~FOUO~~) Ware, as it happened, sat on NSA's Scientific Advisory Board, and called General Carter to tell him that he was about to get a hot new issue on his plate. Contending that NSA was the only agency in the federal government that had the technical expertise, Ware plugged for the Agency's direct involvement. The issue bubbled slowly for two years, but in 1967 the Defense Supply Agency (DSA) at Cameron Station, Virginia, made a formal request to the secretary of defense that NSA be named the computer security authority. This was followed in short order by requests from several other federal agencies. NSA first became involved with these requests on a voluntary basis – it had no charter to do this unless cryptographic equipment was involved, and

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Dr. Willis Ware

in this case it wasn't. Nor did NSA have an organization officially tasked with the job. The DSA request to the secretary was still pending and had generated a lot of controversy within NSA. Many felt that NSA should avoid the task.

(U//~~FOUO~~) Having dodged responsibility for the new COMPUSEC mission for several years, NSA finally made a partial step in 1969 with the issuance of a memorandum by the deputy director, Louis Tordella. Noting that NSA possessed no official responsibility, Tordella nonetheless acknowledged that a moral responsibility was involved. Thenceforth, NSA would provide assistance to other intelligence community (IC) organizations based on experiences that NSA had had with its own systems. NSA would not assist non-IC organizations.⁷⁵

~~(C)~~ In 1972, the consequences of continued inaction were starkly illustrated by an incident involving DIA. The Defense Intelligence Agency had created several intelligence community databases designed for multilevel security access, and DIA contacted USIB about running a security check of the system so that they could get their systems accredited for SI and TK information. NSA and other members of the intelligence community, with participation from defense contractors, obliged. By the time the attacks terminated, the penetration was so thorough that a penetrator at a distant remote terminal had actually seized control of the system. DIA never got its accreditation, and the results of the exercise made many at NSA skeptical that multilevel security could ever be achieved.

(U//~~FOUO~~) NSA's role in computer security expanded in 1973. Needing a focus for research on the subject, Tordella named the ADC (assistant director for comsec) as the responsible official, and ADC established a small center for technical information on the subject, specifically to support federal agencies. Despite Tordella's decision, however, little happened through the end of the decade. Lew Allen requested sixty-seven billets for the fiscal year 1975 program, but was turned down, in part because NSA's role was still controversial.⁷⁶

(U//~~FOUO~~) Late in the decade an OSD staffer and former NSA employee, Stephen Walker, approached Bobby Inman about the computer security mess. Walker explained that in OSD there was a strong feeling that NSA should expand its effort and become the office of primary responsibility for computer security in the federal government. However, Walker personally opposed locating the organization within COMSEC. Inman agreed and asked George Cotter, the assistant director for telecommunications, to take on the task.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Working closely with Walker, Cotter set up the Computer Security Center as a separate organization. It was formally created on the first of January, 1981, as the Department of Defense Computer Security Center, with a small staff working directly for Cotter. Originally it was to have a separate building, to be located in the parking lot outside Ops-3 on the main Fort Meade campus. But, as often happens with money, the line item was diverted, and went into construction of the Special Processing Laboratory. In the end, the center never got its own building, and it continued to operate out of borrowed spaces.⁷⁷

(U//~~FOUO~~) NSA's role in computer security remained a lightning rod for dissent both within NSA and in the outside world. That role waxed and waned depending on the political winds. Under Reagan, it expanded, and under NSDD 145 the DoD Computer Security Center became the National Computer Security Center, with an expanded mission to bring computer security products to non-national security organizations. At the same time, Walter Deeley and Harry Daniels, who were running the COMSEC organization, convinced General Odom that COMPUSEC should be part of their organization, and so the Center was resubordinated to the (now called) DDI, responsible for INFOSEC, which included both COMSEC and COMPUSEC.⁷⁸

(U) But NSDD 145 encountered congressional opposition, and it was overturned in 1987 by the Computer Security Act. This legislation split the mission between NSA and the National Bureau of Standards (NBS, which soon changed its name to NIST, National Institute of Standards and Technology). NSA retained its role within the national security community, but NBS got the mission to deal with all others. It was clear from the legislation, however, that NSA would retain a strong technical advisory role with NBS, which lacked the expertise on the subject.⁷⁹

(U) Operations Security

(U) The experience in Vietnam had generated an operations security program called Purple Dragon (see Vol II, 551). NSA had been the core of the effort, and it became the institutional memory for OPSEC. But as Vietnam faded from mind, memories of OPSEC programs grew dim. So in the early 1980s NSA began holding OPSEC seminars around the Pacific Rim for military organizations. The program quickly expanded to the Coast Guard, the White House, GSA, Customs, and NASA. This nascent effort became a full-blown OPSEC training program at the National Cryptologic School. The National OPSEC Course was open to all federal agencies, and 80 percent of the attendees were non-NSA.⁸⁰

~~(C)~~ In 1983 Caspar Weinberger directed that all DoD organizations have OPSEC programs, and NSA became responsible for OPSEC education. But while NSA spread the word about effective OPSEC programs, it had none itself. The "Year of the Spy" (see page 401) brought on a thorough internal examination of security practices. The panel, headed by David Boak concluded in 1986 that NSA had effectively flunked its own OPSEC exam. This led to the establishment of a DDI OPSEC working group to bring NSA into compliance with its own established standards.⁸¹

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) In 1988, President Reagan signed NSDD 298, which established the OPSEC program of the federal government. Every agency with "classified or sensitive activities" would establish a formal OPSEC program. The order gave NSA the training and technical support mission for all federal programs. It also established an Interagency OPSEC Support Staff, with representatives from NSA, FBI, CIA, DOE, and GSA. A SIGINT professional, Carl Miller, was named to head the NSA effort.⁸²

(U) INFOSEC and the New Way of Doing Business

~~(S)~~ In 1983 the Communications Security organization got a new boss. Walter Deeley, who had revolutionized SIGINT timely reporting, was sent by General Faurer to do the same thing to the COMSEC business. Deeley took stock of American COMSEC, and did not like what he saw. As he later said to a congressional committee, "I was appalled. Within weeks I told Faurer that I would rank the United States in the top half of the Third World countries when it comes to protecting its communications. What I found was a secluded organization with fewer than 2,000 people, including all the printers of our codes and ciphers, no charter to effect change, no money except to engage in research and development, and customers who really didn't want our products."⁸³ Two years later he said to another committee: "The United States is in jeopardy because it does poorly protecting its vital communications....As a nation so far, we have not made this commitment...."⁸⁴

(U) The New Way of Doing Business, as the Deeley revolution was termed, was based on embeddable COMSEC products, or "COMSEC on a chip." Instead of protecting point-to-point circuits, NSA would go for bulk encryption. The Agency would get into a partnership with commercial manufacturers to produce encryption technology. The revolution did not just happen; it was carefully planned and executed.⁸⁵

(U//~~FOUO~~) One of the first battles of the Deeley era was over national policy. The struggles of the Carter administration over what federal agency was to control national COMSEC policy continued into the Reagan years. Admiral Bobby Inman had been sure that Carter would lean toward expanded authorities by the Department of Commerce, and he successfully stalled the Carter White House on the issue, hoping for a more favorable decision from the incoming Reagan people.

~~(S)~~ The new administration was temperamentally inclined to give the problem to DoD. This was strongly reinforced by the problems in Soviet exploitation of U.S. domestic communications, the problems with Moscow embassy security, exposure of the Walker ring, and concern over potential penetration of American computer systems. A coterie of NSC staffers, headed by Kenneth deGraffenreid, pushed hard for NSA involvement. The result was a new National Security Decision Directive, NSDD 145. Issued in 1984, it established COMSEC as a high-priority national objective, and named the secretary of defense as the executive agent for the security of government communications related to national security. NSA was designated the "National Manager for Telecommunications Security and Automated Information Systems Security," a longish title which placed the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Agency directly in the center of the COMSEC business. Moreover, NSDD 145 did away with the old United States Communications Security Board, which had accomplished so little over the years. Instead, the directive replaced it with a new Systems Security Working Group (SSSC) and, under it, the National Telecommunications Information Systems Security Committee (NTISSC, pronounced "entissic"). NBS had separate responsibility for the private sector, but even there, NSA had a technical and advisory role. NTISSC, the real player in this game, was dominated by NSA, and its secretariat was located in NSA spaces.⁸⁶

(U) The ink on NSDD 145 was hardly dry when it was attacked in Congress. The issue turned on a congressional distrust of DoD involvement in computer security. The Department of Commerce, which had been involved in COMPUSEC by the Carter order (PD 24), was anxious to reverse the course of NSDD 145, and a behind-the-scenes brawl developed between NSA and Commerce over the COMPUSEC authority. The fight was ultimately settled by Congress, which in 1987 passed Public Law 200-135, legislation which was promoted by Congressman Jack Brooks of Texas. This gave Commerce control over COMPUSEC in all cases except those involving classified government contracts, in which NSA was still the prime actor. Although the new law was supposed to affect only computer security, NIST was expected to establish crypto standards and policy for computer security, a domain in which NSA had formerly operated with complete freedom. The hearings which led to the legislation revealed the huge technological lead that NSA enjoyed in the field of computer security, but the demons of congressional distrust could not be overcome.⁸⁷

(S) The secure voice revolution that had begun in the 1970s accelerated under Deeley. He brought with him the perspective of a SIGINTer who knew how to exploit other countries' communications.

...twenty years ago I was...having fun listening to Khrushchev and Ustinov and all of them riding around Moscow talking their heads off in their sedans....When I walked into this [job] two years ago, the president and cabinet members and the chairman of the Joint Chiefs of Staff and every other dignitary of government were riding around in their sedans blowing every secret we have over clear telephones - 18 years later we were still doing that.

(TS) By the time he took over, the formerly simple picture had been complicated by the Bell Systems divestiture, mandated by a federal government antitrust suit. This forced NSA to deal with many firms to secure wirelines, instead of just one or two.

[redacted] what was needed was a truly user-friendly secure voice handset. In 1980 Deputy Secretary of Defense Graham Claytor endorsed the STU-II program and recommended large-scale procurement. In 1982, his successor, Frank Carlucci, decided to buy 5,000 STU-II sets and allocated \$120 million for the program. The STU-II was strongly endorsed by Alexander Haig, Carlucci and President Reagan himself.⁸⁸

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~(S)~~ But STU-II was just a waystation. The revolution in voice security was wrought by a new product, the STU-III. The basis for the STU-III was a public key algorithm called Firefly, designed by engineers from NSA's R1. When Deeley came to the COMSEC organization, he "captured" R1 and created a special projects office to develop the STU-III. Deeley made the decision to have the STU-III built by private industry, and three contractors - RCA, AT&T, and Motorola - each developed a unique STU-III device, all three of which sold competitively. It was a low-cost (about \$2,000 per copy) terminal that would sit on a desk. There would be unique plastic key for each device, but the device would not work without another key, developed on demand from a central key management center. The Key Management Center would re-key each device at least once a year. The key generation system relied on an algorithm that would find large prime numbers very quickly. [REDACTED]

(U) The key management facility was originally collocated with a contractor in Waltham, Massachusetts. In 1988 NSA moved the facility to an old 1950s-era bomb shelter in the Maryland countryside owned by AT&T, near Finksburg.⁹⁰

(U) The crypto gear that NSA had designed for the new communications era had, by the early 1980s, come to the end of the rope. The KW-26, a marvel of its day, could only secure 100-word-per-minute circuits. The KG-13 and KW-7 were out of production and becoming more difficult to maintain every day. The replacement device, developed under a project named Yellowfin, would be the KG-84. Small, lightweight (20 lbs), cheap (base price of about \$5,100), it was designed to operate at speeds up to 9600 bps. Cost of maintenance was also a big selling point: while the KW-26 mean time between failure (MTBF) was 1,840 hours, the worst-case MTBF for the KG-84 was 17,000 hours. The KG-84 began appearing in comm centers in the mid-1980s.⁹¹

~~(S)~~ One of the COMSEC improvements of the 1980s was OTAR (over-the-air re-keying). NSA had long wanted to dispense with paper tape re-keying, with its attendant courier problems and possibility of loss or pilferage. The Agency had incorporated OTAR into the Vinson tactical voice system of the late 1970s, but the rationale was combat. If an American unit with a Vinson were overrun, the field commander would need a way to quickly re-key all other Vinson equipments. Vinson was an OTAR device by exception only; it was normally keyed just like any other COMSEC device. The KG-84 was designed with an optional OTAR capability, but DCA thought so little about it that at one time it directed that all KG-84s be rewired to disable the OTAR feature.⁹²

~~(S)~~ But two events in the 1980s spurred a reversal of fortunes for the OTAR concept. One was the invasion of Grenada, which conclusively demonstrated that the services could not easily talk to each other, and drove the JCS to reform the concept of jointness and to direct the services to marry their communications system. This led, ultimately, to a new COMSEC key distribution doctrine which would permit U.S. forces to communicate with each other on almost all tactical crypto devices using electronically distributed key.⁹³

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) The second was the arrest of John Walker in May of 1985 (see page 417). Walker had been stealing crypto key since 1968 and selling it to the Soviets. The massive hemorrhage of classified information was directly attributable to the wide and easy availability of crypto key, and sparked a complete re-look at COMSEC keying doctrine.

~~(S)~~ What resulted was a JCS decision in 1988 to implement OTAR on every KG-84 device in the world. Vice Admiral Jerry Tuttle, the JCS J6 in 1988, forced the issue after being told that NSA was having a hard time keeping up with the demand for paper keying tape and that the KG-84 had been designed with an OTAR capability that was not being used. Tuttle made the historic decision to require OTAR on KG-84 circuits, and by the early 1990s the KG-84 had been completely converted to the new method of operation.⁹⁴

(U//~~FOUO~~) Until NSA came up with an effective OTAR strategy in the 1980s, the best it could do was to protect the crypto keys from tampering. The Agency always had a small group working on protective packaging, but the big breakthrough came with the hiring of a chemist named [] in the 1960s. [] a Harvard Ph.D. in chemistry, had specialized in the detection of poison gasses during World War II. After the war he worked for CIA on protective packaging until he switched to NSA. He brought with him the techniques of the spy.⁹⁵

~~(S)~~ [] introduced many new packaging techniques. For key tapes, NSA developed []

[] John Walker said in his debriefing that he tried to steal key that was canister protected, but gave up and just stole key that was easier to pilfer. This lent a huge push for canister protection.⁹⁶

~~(S)~~ For key cards and authenticators, [] and his group developed methods to

EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S)~~ But occasionally the game became real. In 1982 the COMSEC threat analysis group under Dr. William Ward sent 300 bogus specially packaged one-time pads to users throughout the world. (They were bogus in the sense that they were not to be used; they were to be returned without opening by the recipient.) Back at NSA, the packages were subjected to laboratory analysis to see if they had been tampered with. Two hundred ninety-nine came back clean. One package – the one addressed to [REDACTED] [REDACTED] – had been opened.

EO 1.4.(c)
OGA
PL 86-36/50 USC 3605

~~(S)~~ Ultimately the penetration operation was halted. But for Manning's packaging and the "dangle" operation mounted by Ward, the Polish intelligence service could have continued stealing crypto key indefinitely.⁹⁹

EO 1.4.(b)

(U) The Second Parties - the United Kingdom

~~(S//SI)~~ Relations with the British, relatively sunny even in the worst of times, enjoyed "gold star" status after the Falklands War (see page 374). In this case, the Reagan administration made a commitment, though somewhat tardy, to throw its support behind the British. [REDACTED]

[REDACTED] It was probably the high point for the relationship since World War II.

(U//~~FOUO~~) In the mid-1980s, CIA headed a study of America's close intelligence relationships. The subcommittee on the U.K. relationship, reporting in January of 1988, began with the statement that "No country has closer or more extensive diplomatic and intelligence liaison ties to the United States than does the United Kingdom. The 'special relationship' between the two governments on intelligence matters has existed since the outbreak of World War II."

~~(S//SI)~~ Although calling the CIA-U.K. relationship the broadest in terms of scope, the committee characterized the NSA-GCHQ liaison as the most fully integrated. It concluded that it would be more accurate to call it an "equal partnership" than an exchange of information. NSA assessed that this was likely to become more rather than less

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

integrated, pointing to total integration of British and Americans at [redacted] sites, fuller exchanges on the international terrorism target, the need to broaden access to [redacted] signals through [redacted] and plans for a multinational effort to recoup the Hong Kong collection following British pullout from the Crown Colony in 1997.¹⁰⁰

(S) The only serious rift was on the COMSEC side. Relationships in that area had never been as strong as on the SIGINT side. In 1986, when the STU-III was still under development, NSA decided not to exchange with foreign partners, excepting only Canada (to service the needs of the NORAD joint strategic defense effort). The decision was based on reluctance to release to foreign countries the Firefly key management system. NSA devised a work-around that involved releasing the STU-II to NATO nations, and developing a modification, called STU-IIB, which would permit interoperability with a modification of STU-III. The STU-III variant could talk with other STU-IIIs, but the original STU-III could not talk with STU-IIBs. It was a convoluted system, but the DDI organization insisted that it would work.

(S) Although NSA held to the original decision, it resulted in high-level complaints from GCHQ. How, it was asked, could NSA justify bringing Canada into the system, but not the British, with whom there was a much closer cryptologic relationship? Moreover, the decision was hardly unanimous within the U.S. Admiral Jerry Tuttle, the JCS J6, surfaced the issue in 1988. This occasioned a note from NSA's foreign relations directorate that the NSA position "makes arguments that are illogical, weak, and indefensible." Dissent notwithstanding, the NSA position did not waver.¹⁰¹

(TS//SI) One of the most influential SIGINT joint partnerships was a mysterious project called [redacted]. The partnership between NSA and GCHQ [redacted] brought GCHQ into an indirect association with [redacted]. It raised some very good questions about the viability of continued reliance on [redacted] and GCHQ senior managers began turning the question over in their minds. GCHQ informally approached Director Lew Allen through the NSA representative in London, Milton Zaslow, in 1976. [redacted]

[redacted] but Allen felt strongly that this would fragment the British SIGINT effort and [redacted]. However, GCHQ persisted and brought matters to a head at a 1979 joint NSA-GCHQ conference. [redacted]

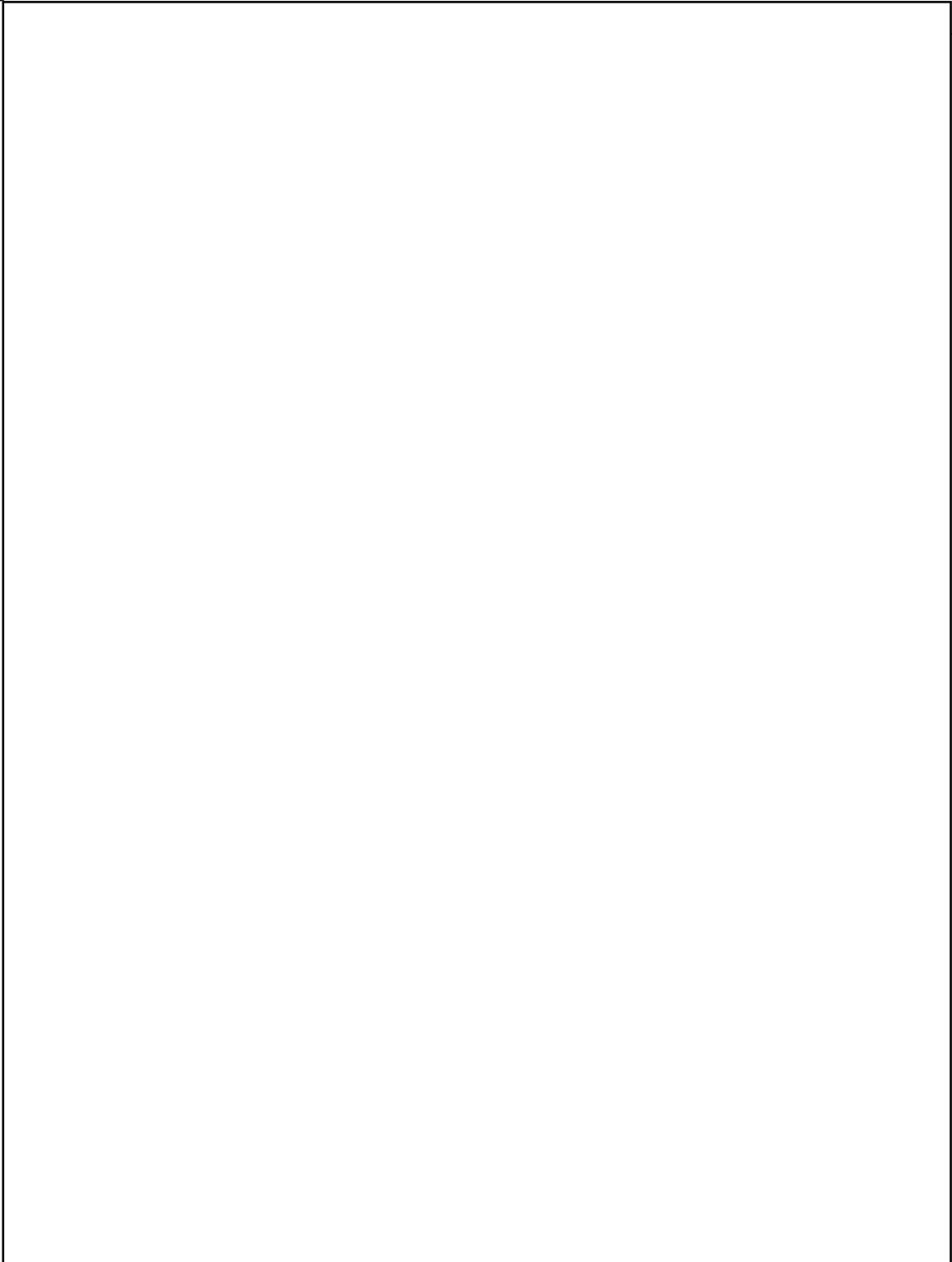
By 1979, Admiral Bobby Inman was the director, and the GCHQ proposal fell on more sympathetic ears.¹⁰²

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~**(U) Australia**

~~(S//SI)~~ Despite the bumpy times of the 1970s, the relationship with Australia enjoyed an unprecedented expansion during the following decade. In the late 1970s DSD had committed to a major joint project, [REDACTED]

[REDACTED] and with considerable help from NSA technical people, and an on-going partnership with GCHQ, Australia got into [REDACTED]

104

~~(S//SI)~~ [REDACTED] was followed soon after by an even larger project. [REDACTED]

[REDACTED] Despite the heavy capital expenditures that would be involved, and the huge management problems that would inevitably ensue, [REDACTED]

105

(U) Australia's parliament had been controlled by Conservatives since the sacking of Gough Whitlam in 1975. But in 1983 the Australian Labor Party (ALP) regained control. The left wing of the party had been critical of Prime Minister Malcolm Fraser's close relationship with the United States. There were threats to close Aussie ports to American warships and strident declarations of brotherhood with the government of Vietnam. But when party leader Bob Hawke took the premiership, he excluded the left wing of the party and repudiated the anti-U.S. planks of the party platform. In foreign affairs he formed a close bond with Ronald Reagan. Soon after his election he publicly declared that the U.S. would continue to enjoy access to defence facilities in Australia, including Alice Springs (also known as Pine Gap). His public statement in support of the facility revealed the base's purpose: "...provision of early warning by receiving from space satellites information about missile launches - and the occurrence of nuclear explosions." It was more than the U.S. wanted him to say, but was received with relatively good graces in view of his strong support for the joint effort.¹⁰⁶

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

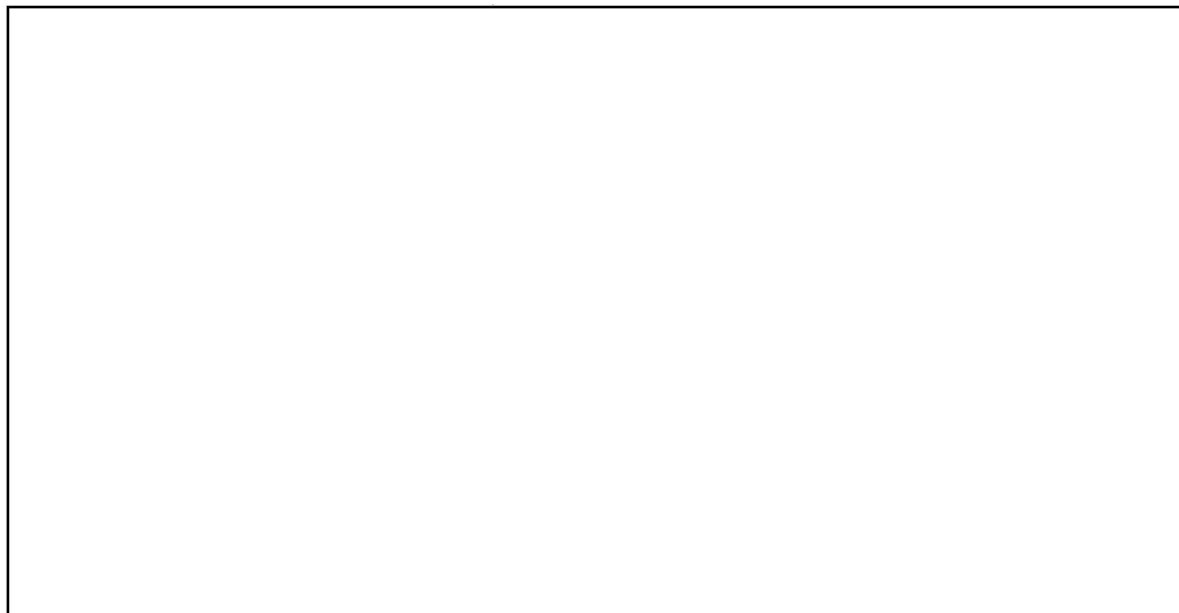
EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(b)

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~



(U) Bob Hawke, second from left



(U) *New Zealand*

~~(S//SI)~~ The fifth UKUSA partner was New Zealand. Since World War II, New Zealand had maintained a cryptologic relationship with the Commonwealth countries and the United States through Australia. This subterranean channel changed in 1980, when New

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Zealand forged a completely independent relationship between its cryptologic organization, GCSB, and NSA. A New Zealander was assigned as liaison to NSA, and later in the decade NSA sent a representative on a PCS tour to GCSB to assist the host country to plan and organize its cryptologic effort.¹⁰⁸

(U) The new relationship occurred just in time for controversy. In the summer of 1984 the Labor Party under David Lange assumed power in New Zealand. The party had long had a nuclear-free plank, and left-wing members were pressing for withdrawal from ANZUS. Lange, being a centrist by persuasion, tried to ignore the anti-U.S. tide, continuing to push a decision into the future. The Reagan administration also tried to ride out the storm, believing that Lange would be a New Zealand Bob Hawke on the issue. But it did not understand the depth of Lange's difficulties. Lange's problem turned on the nuclear-free issue and the determination of his left wing that no American nuclear vessels would be permitted in New Zealand ports. The U.S. delayed port visits in hopes that Lange could solve the political problem. Finally, in March of 1985 the U.S. requested permission for a non-nuclear vessel, the USS *Buchanan*, to visit Auckland in connection with a scheduled naval exercise. This was done under a tacit agreement with the Lange government that the first port visit would be by an obviously non-nuclear vessel, following which Lange could announce that he had determined that it was not a nuclear vessel and could enter. But the deal broke down because Lange could not push it through his party caucus, and he announced that the *Buchanan* would not be permitted to enter port. The outraged Reagan administration cancelled the joint exercise and suspended all military cooperation with New Zealand, including the flow of intelligence information.¹⁰⁹

~~(S//SI)~~ Fortunately for NSA, cryptology was one of the few exempt areas. Relationships continued, albeit at a somewhat reduced level. By 1989 relations had improved to the point that NSA assisted GCSB to set up [] collection facility. The permission was granted because the agreement had predated the 1985 nuclear ship fiasco.¹¹⁰

(U) Third Parties

~~(TS//SI)~~ The 1977 Peace Treaty with CIA behind it, NSA devoted the 1980s to the process of cementing its technical exchanges with Third Parties. As the importance of Third Parties increased, relations inevitably expanded, and in the early 1980s NSA and GCHQ were confronted with difficult technical exchange questions. []

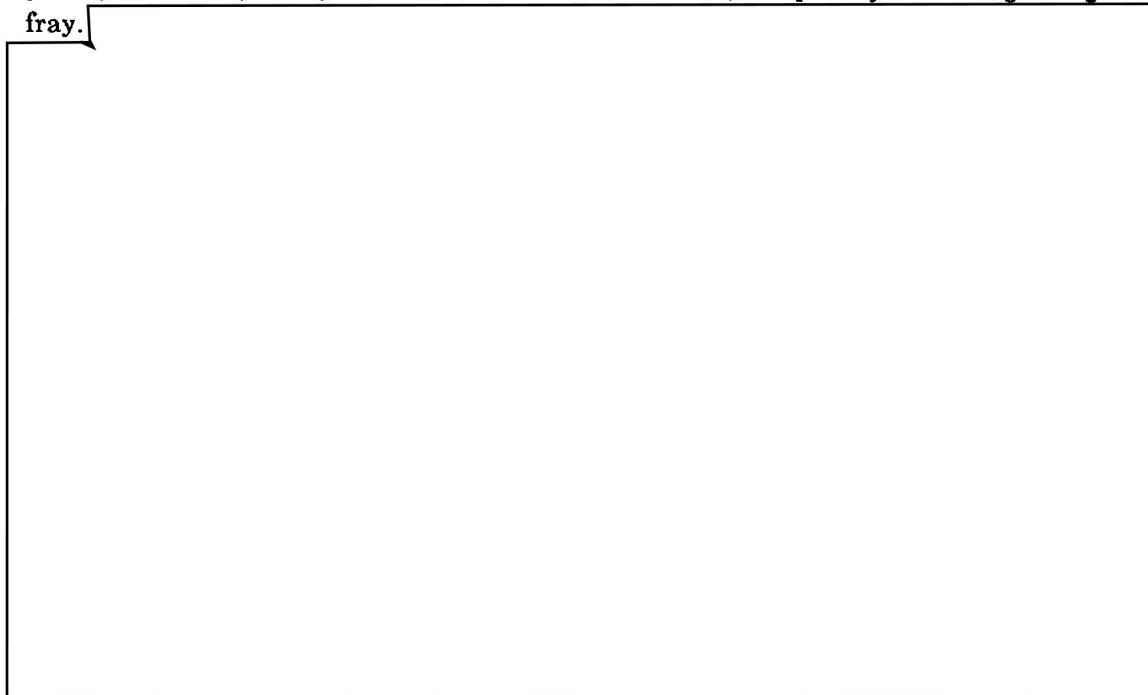
EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



~~(S//SI)~~ Foreign relationships had always been bilateral, in accord with UKUSA principles. Thirty-five years after the accords, however, the principle was beginning to fray.



EO 1.4. (b)
EO 1.4. (c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

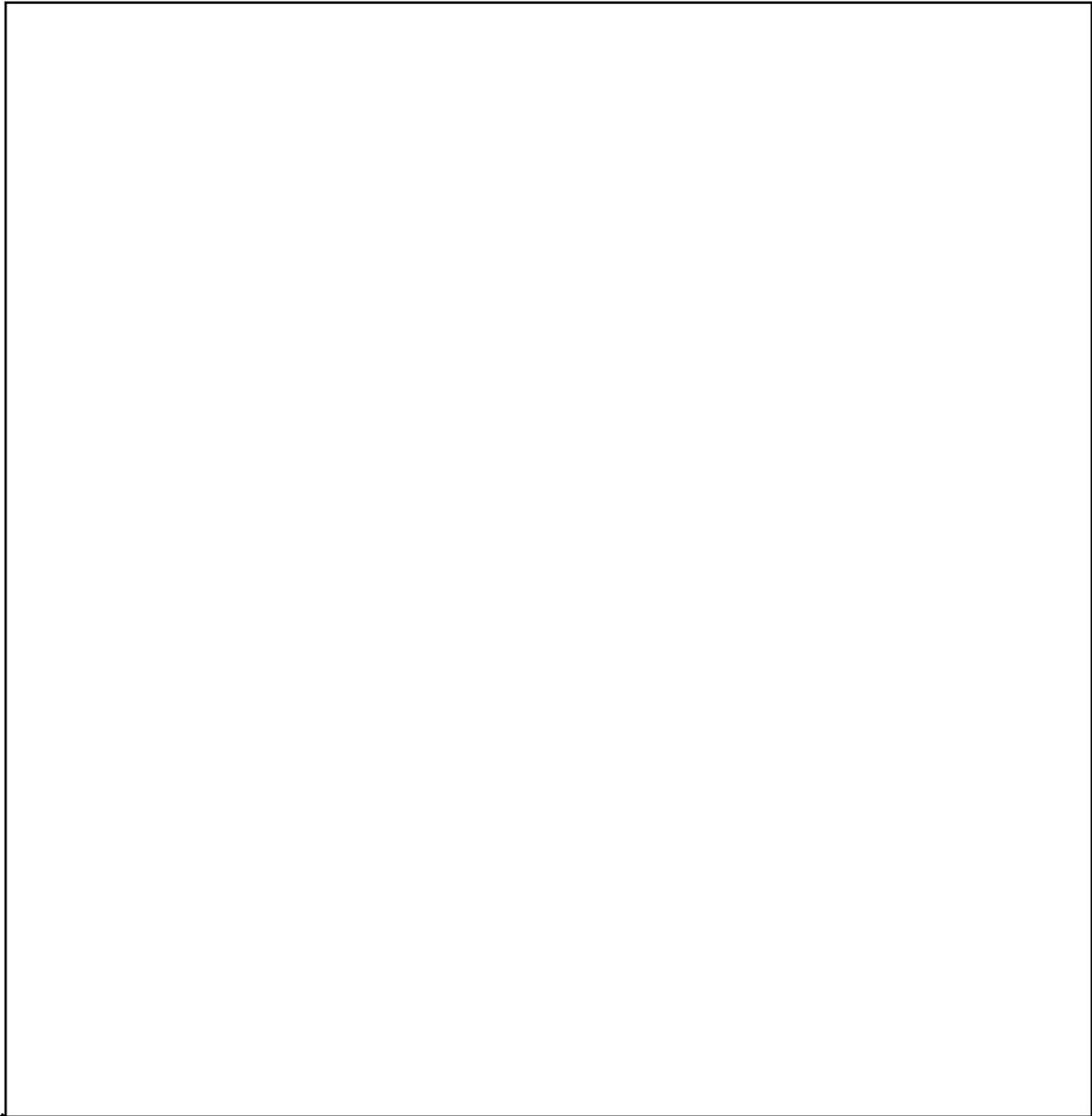
EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



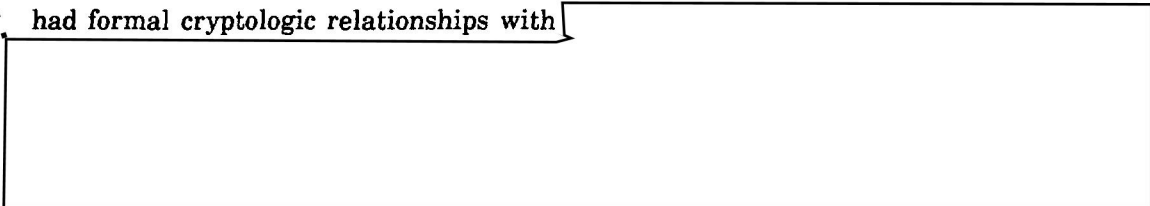
~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605



(U) All The Rest

~~(TS//SI)~~ Once freed from the restrictive CIA direct oversight of Third Party operations, cryptologic relationships with almost all the Third Parties quickly took off. In 1984, NSA had formal cryptologic relationships with



~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(S//SI) [redacted] relationship, split for many years between [redacted] and the NSA relationship with the [redacted] was linked up in the early 1980s when NSA took over the liaison with [redacted]. By 1988 NSA had [redacted] by far its largest Third Party mission, and the financial account stood at \$8 million worth of aid in the form of equipment and technical assistance.¹²³

(S//SI) The relationship with [redacted] was important primarily because of the remote collector [redacted] its efficiency had been impaired by an overly strict [redacted]. In 1981 [redacted] lifted the lid a little. The next year NSA concluded an agreement [redacted] and this arrangement expanded constantly throughout the 1980s.¹²⁴

(U) Notes

1. (U) John Ranelagh, *The Agency: The Rise and Decline of the CIA* (New York: Simon and Schuster, 1986), 666-72.
2. (U) Inman interview.
3. (U) Christopher Andrew, *For the President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush* (New York: HarperCollins, 1994), 501.
4. (U) DDIR files, in NSA retired records 96026, Box 10, "President Reagan." interview, Juanita M. Moody, by David Hatch, [redacted] Michael Peterson and Colin B. Burke, 16 June 1994, OH 32-94, NSA. NSA Archives 44700NZ, G15-0306-1.
5. (U) Bob Woodward, *Veil: The Secret Wars of the CIA 1981-1987* (New York: Simon and Schuster, 1987), 46-47.
6. (U) *Washington Star*, 3 February 1981. U.S., Congress, Senate Select Committee on Intelligence, Nomination of Admiral B. R. Inman to be Deputy Director of Central Intelligence. 97th Cong., 1st sess., 1981, 1.
7. (U) CCH Series VI.D.2.15.
8. (U) Interview, Robert Rich, by Tom Johnson and [redacted] OH 12-97, NSA.
9. (U) Interview, Sir Peter Marychurch, by Henry Schorreck, 17-18 October 1989, OH 11-89, NSA.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

10. (U) Interview, Lincoln D. Faurer, by Robert D. Farley, Tom Johnson and [] 20 March 1987, OH 8-87, NSA.
11. (U) Ibid.
12. (U) Faurer interview. *Washington Post*, 20 April 1985, article by George Wilson.
13. (U) Interview, Lt Gen William Odom, by Tom Johnson, 19 August 1997, OH 13-97, NSA.
14. (U) NSASAB Special Task Group for G Group Study: Report on G Group Machine Systems, 16 March 1979.
15. (U) Odom interview.
16. (U) Rich interview. Interview, Robert J. Hermann, by Charles Baker and Tom Johnson, 2 September 1994, OH 45-94, NSA.
17. (U) Odom interview.
18. (U) Ibid.
19. (U) Odom interview. Chief, A2 executive files, in NSA retired records 96228, Box 4, "Programming Data, 1988." QMR, 3/87. Interview, Adm William O. Studeman, by Robert Farley, OH 5-91, NSA.
20. (U) Odom interview.
21. (U) Interview [] by Tom Johnson, 30 May 1997, OH -97, NSA.
22. (U) NSA Archives, acc nr 92456, Box 72942.
23. (U) Ibid.
24. (U) CCH Series XII.OO, Box 4, "SIGINT Satellite Program Costs."
25. (U) NSA retired records, shipment 90176, Box 63063, "FY 87 Hearings/Testimony/Brief, FY-86 CCP."
26. (U) Informal documentation on population provided by [] of S22. CCH Series XII.D., "Military Manpower Review Group, 1988."
27. (U) CCH Series XII.D., [] "Space Management from a Resource Management Perspective," no date.
28. (U) QMR, 1.87.
29. (U) Ibid.
30. (U) QMR, 3/83, 2/82. CCH Series XII.D., "Military Manpower Study."
31. (U) QMR, 2/94, 2/82.
32. (U) QMR, 2.82.
33. (U) Ibid.
34. (U) Ibid.
35. (U) [] "Space Management...." [Edward Wiley] *On Watch: Profiles from the National Security Agency's Past Forty Years*, 91.

PL 86-36/50 USC 3605

36. (U) QMR, 2/93.
37. (U) QMR, 4/83, 2/93.
38. (U) QMR, 4/83.
39. (U) CCH Series XI.R. DDIR files, Box 1, "FSCS Phase II Wrapup Report."
40. (U) Chief A2 files, "FSCS."
41. (U) Ibid.
42. (U) CCH Series XI.R (papers of Maj Gen John Morrison). Interview, William Kvetkas, by Tom Johnson, 10, 17 July, 6 August, 1996, OH -96, NSA. DDIR files, Box 3, "Overhead Senior Steering Council." Inman interview. The project name is still classified Secret Byeman by NRO, and cannot be used in this book; hence the appellation "Battlestar Galactica." The actual project name has appeared in the open press.
43. (U) DDIR files, Box 3, "Overhead Senior Steering Council"; Box 1, "FSCS Phase III Wrapup Report."
44. (U) DDIR files, Box 1, "FSCS Phase III Wrapup Report."
45. (U) Hermann interview.
46. (U) CCH Series XI.R.
47. (U) Hermann interview. CCH Series XI.R
48. (U) Memo from John McMahon, 15 July 1988, in CCH Series XII.OO, Box 4, "DCI Letters." Interview, Roger Thayer, by Tom Johnson and [REDACTED] 3 May 1994, unnumbered NSA OH. Kvetkas interview.
49. (U) DDIR files, Box 3, "Overhead Senior Steering Council," memo dated 21 December 1987.
50. (U) DDIR files, Box 11, "Overhead SIGINT Strategy Study," memo dated 25 July 1988.
51. (U) Ch A2 files, "SSCI Study, 1987." Black papers, memos dated 18 November 86 and 28 July 1986. Interview, Edward Jacobs, by Tom Johnson, 19 February 1997, NSA OH 04-97, NSA.
52. (U) Black papers, memo dated November 1986. NSA Archives acc nr 25892Z, CBOB 75. Ch A2 files, Box 5, "Ch A2 Strategic Planning."
53. (U) Black papers, "Project [REDACTED] Baseline Summary," 31 October 1986.
54. (U) Interview with Thomas J. Fogarty, by Tom Johnson, 6 August 1997. Kvetkas interview. DDIR files, Box 3, "Overhead Senior Steering Council."
55. (U) Odom interview. DDIR files, Box 3, "Overhead Senior Steering Council," memos dated 16 and 18 December 1987.
56. (U) DDIR files, Box 3, "Overhead Senior Steering Council," 14 January 1988 memo.
57. (U) DDIR files, Box 3, "Overhead Senior Steering Council." Ch, A2 files, "Strengthening Intelligence Capabilities Against the USSR."
58. (U) DDIR files, Box 13, "Collection and Processing of Intelligence, 1981." Interview, Richard L. Bernard, by Tom Johnson, 4 June 1996, OH 18-96, NSA.

PL 86-36/50 USC 3605

59. (U) Ch, A2 files, "A213 Working Aid 004-87."
60. (U) Ch, A2 files. DDIR files, Box 13, "Collection and Processing of Intelligence, 1981." NSA Archives acc nr 46092, H04-0208-7.
61. (U) [] "The Selection of Yakima Research Station, Yakima, Washington as Alternate Headquarters and Reconstitution Site for NSA/CSS," 15 February 1984. DDIR files, Box 13, "Collection and Processing of Intelligence."
62. (U) Henry Millington, untitled manuscript on the history of [] CCH Series XII.D.
63. (U) Ibid.
64. (U) Ibid.
65. (U) NSA Archives, acc nr 44602, H03-0609-6.
66. (U) NSA Archives, acc nr 32597, H01-0101-7; 44602, H03-0609-6; 36692, H03-0203-5.
67. (U) Eugene Becker, manuscript on Umstead available in CCH Series XII.D.
68. (U) Interview, George Cotter, by Tom Johnson, December 1996, OH 7-96, NSA.
69. (U) QMR, 2/93, 95. Cotter interview.
70. (U) Cotter interview.
71. (U) Interview, Kermit H. Speierman, by Robert D. Farley, 16 January 1986, OH 2-86, NSA.
72. (U) Speierman interview. E-mail note from George Cotter to Tom Johnson, 19 August 1997, NSA.
73. (U) Ibid.
74. (U) [] untitled draft history of NSA computer security, in NSA CCH Series XII.D.
75. (U) Comsec History, and Background and Papers, 1946-1970, in CCH Series V.H.1.1. Yankowski draft.
76. (U) [] draft.
77. (U) [] draft. David G. Boak, *A History of U.S. Communications Security* [The David G. Boak Lectures] (Fort Meade: NSA, 1973). Cotter interview.
78. (U) Boak lectures. QMR, 1/87.
79. (U) *Codes, Keys and Conflicts: Issues in U.S. Cryptographic Policy*, Report of a Special Panel of the ACM U.S. Public Policy Committee (USACMP), June 1994 (New York: ACM, 1994).
80. (U) [] *Purple Dragon: The Origin and Development of the United States OPSEC Program*, Ft. Meade, MD: Center for Cryptologic History, 1993.
81. (U) CCH Series VI.F.2.1.
82. (U) [] *Purple Dragon*.
83. (U) NSA Archives, acc nr 36741, CBPJ 46.
84. (U) NSA Archives, acc nr 36740, CBPJ 46.

PL 86-36/50 USC 3605

85. (U) [] interview. QMR, 2/93. Interview, Lt Gen Lincoln D. Faurer, USAF (Ret.), by Robert D. Farley, [] and Tom Johnson.
86. (U) George F. Jelen, "Information Security: An Elusive Goal," Harvard University Center for Information Policy Research, 1985. Interview, [] by Charles Baker and Tom Johnson, 2 February 1993, OH 2-93, NSA. Faurer interview. DDir files, 96026, Box 14, "Embassy Telecommunications Security Assessments."
87. (U) Deputy Director's Records, Box 11, "Compusec." [] interview. NSA Archives, acc nr 36740, CBPJ 46.
88. (U) Deeley quote from c-2527; OH 29-93. NSA Archives, acc nr 42366, H03-0409-1.
89. (U) Interview, [] by Tom Johnson, 18 February 1997. STU-III video in CCH video collection.
90. (U) Interview, [] by Tom Johnson, 5 March 1997.
91. (U) NSA Archives, acc nr 32597, H01-0101-7. QMR, 1/83.
92. (U) Joseph W. Maguire, draft history of OTAR, in CCH Series XII.D. Interview, Joseph W. Maguire, by Tom Johnson, 12 February 1997.
93. (U) Maguire draft history.
94. (U) Maguire draft history. Boak Lectures.
95. (U) Interview, [] by Tom Johnson and [] 15 May 1997, OH 7-97, NSA.
96. (U) Interview, [] by Tom Johnson, 16 January 1997.
97. (U) [] interview. [] interview.
98. (U) [] interview.
99. (U) Interview, Stephen B. Carter, by Tom Johnson and Ben Hoover, 10, 1998, OH 14-98, NSA. V52 (Threat Analysis) file, "Periscope," retained in OPI spaces.
100. (U) Foreign Relations Directorate, CDO UK files, "IPC-Kern Committee."
101. (U) CDO UK files, "STU-III." EO 1.4.(b)
102. (U) CDO UK files, [] Interview, Milton Zaslow, by Tom Johnson, 21 May 1998.
103. (U) Ibid.
104. (U) QMR, 1/83. Interview, Timothy W. James, by Tom Johnson, OH 10-97, NSA.
105. (U) James interview.
106. (U) [] and [] "An Alliance Unravels: The United States and ANZUS," *Naval War College Review* (Summer 1993), 109-10. CCH Series XII.OO., Box 3, History of Rainfall, 25-26.
107. (U) DDIR files, Box 3, "U.S.-Australian Relations." Odom interview. Foreign Relations Directorate, U.S.-Australian Agreement [] James interview.

PL 86-36/50 USC 3605

108. (U) [] NSA's *Involvement in U.S. Foreign SIGINT Relationships*, U.S. Cryptologic History, Series 6, Vol. 4 (Fort Meade: NSA, 1995).
109. (U) [] "An Alliance Unravels."
110. (U) [] NSA's *Involvement in U.S. Foreign SIGINT Relationships*.
111. (U) CCH Series VI.C.4; XII.D., "Development of the UKUSA [] SIGINT Relationships, 1962-1985." Ch. A2 files.
112. (U) DDIR files, Box 13, "Collection and Processing of Intelligence." CCH Series VI.K.1.5.
113. (U) [] "Foreign SIGINT Operations: The Legal Side," IAI International Notes and News (Fort Meade: NSA, June 1993).
114. (U) [] NSA's *Involvement in U.S. Foreign SIGINT Relationships*, 102, 113-14.
115. (U) Ibid., 120.
116. ~~(S//SI)~~ Foreign Relations Directorate, CDO [] files, "Development of the UKUSA [] SIGINT Relationships," in CCH Series XII.D.
117. ~~(S//SI)~~ Foreign Relations Directorate, CDO [] "Record of Meeting Between [] GCHQ, CIA/NSA," London, February 20, 1975.
118. ~~(S//SI)~~ CDO [] files, the [] Agreement.
119. ~~(S//SI)~~ "Development of the UKUSA [] SIGINT Relationship 1962-1985," Z/OO21GW/8500/05, 24 March 1986. Interview, Whitney E. Reed, by Tom Johnson. CDO [] files, "Developments of the UKUSA [] SIGINT Relationship...." Jacobs interview.
120. (U) Jacobs interview. CDO [] files:
121. (U) Jacobs interview. NSA Archives, acc nr 32941Z, G14-0308-6 [] Agreement, undated.
122. (U) CCH Series VI.C.4.
123. ~~(S//SI)~~ [] "A Historical Overview of the U.S. SIGINT Effort in []" October 1998, in CCH Series VI. [] NSA's *Involvement in U.S. Foreign SIGINT Relationships*, 115-16.
124. (U) Ibid., 118.
125. (U) [] NSA's *Involvement in U.S. Foreign SIGINT Relationships*, 119. Foreign Relations Directorate, CDO [] files, "Country Handbook," 1982.

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

(U) Chapter 22 The Second Cold War

(U) THE SIGINT SYSTEM AND THE SOVIET PROBLEM

~~(TS//SI)~~ By the end of the 1970s, the SIGINT system was optimized for its principal target, the Soviet Union. It had never before operated so effectively against the threat. This optimization owed much to the overhead satellite system, and a great deal in addition

~~(TS//SI)~~ What distinguished the system, however, was the way that it all knitted together. Analysis of Soviet force posture was a complex weave of HF command and control status, out-of-schedule radioprinter activations, Soviet nuclear submarine out-of-area movements, aircraft movements tracked through Soviet Air Defense facilities, ground forces [redacted] logistics nets, and other sources. Exploitation of the best source, [redacted] was prioritized for processing based on an assessment of all the other indicators.

~~(S//SI)~~ This system had been employed in an analysis of Soviet and Warsaw Pact exercises beginning in the early 1970s. By the waning days of the Carter administration, NSA had become very proficient at analyzing Forward Area forces through the analysis of communications.¹

(U) *The Polish Crisis*

(U) The entire system was employed effectively in 1980 and 1981 in a watershed event from an intelligence perspective, the Polish Crisis. It began in the summer of 1980 with spontaneous strikes in Polish heavy industry to protest deteriorating economic conditions. The strikes were reminiscent of earlier labor protests over the slow-motion collapse of the Polish economy, but this time they were to have a different outcome, largely because of a stolid, square-jawed unemployed electrician. Lech Walesa was a long-time labor agitator whose goal was an independent union. The labor unrest at the Lenin Shipyard in Gdansk was about to burn itself out in mid-August when Walesa revived it by the dramatic act of clambering onto a steam shovel and imploring the strikers to stand fast. The workers responded with a sit-down strike and were soon followed by workers in other cities. Soon the industrial strength of the country began to melt, and the government was forced to negotiate. On August 31 the Polish government signed the historic Gdansk Accords, ratifying the first independent labor union behind the Iron Curtain. The workers' committee that formed around Walesa became known as Solidarity.²

~~(TS//SI-UMBRA)~~ Events in Poland did not seem critical until an obscure indicator appeared in SIGINT – the Soviets had set up a new command post at Rembertow in Germany. Although clearly a contingency facility, the Rembertow CP was ominously like



(U) Lech Walesa, center

one that had been set up a month earlier in the Southern TVD, at Baku. That exercise had alarmed the intelligence community because the objective, as exposed primarily through SIGINT, was a play against the Middle East. Rembertow looked just like the Baku facility. The comparison was made through traffic analysis. [REDACTED]

~~(TS//SI//UMBRA)~~ As autumn bumped along, the Soviet presence in the vicinity of Poland increased. In November the Soviets [REDACTED] set up a TRA (temporary restricted area). Communications showed heightened levels of Soviet activity. By mid-November, initial CIA complacency had given way to unease, but on November 21 CIA reassured the president that "We feel confident that preparations for an imminent invasion of Poland are not under way." Despite the increasing military activity, this accorded with SIGINT, which seemed to indicate a posture of getting ready, but not getting set.⁴

~~(S)~~ But in fact, SIGINT was not all that CIA had. They had an "asset" in Warsaw. Colonel Ryszard Kuklinski worked high on the Polish General Staff, directly with Jaruzelski and Warsaw Pact officers. He was in a position to know what the plans were, both from the Polish and Soviet directions, and, in an operation highly unusual for the Cold War, was able to get timely information to CIA. As Soviet forces readied, Kuklinski kept a running account flowing back to Langley.⁵

~~(TS//SI//UMBRA)~~ At the beginning of December, Stansfield Turner noted to the president that "I believe the Soviets are readying their forces for military intervention in Poland. We do not know, however, whether they have made the decision to intervene, or

are still attempting to find a political solution.”⁶ This conclusion, made primarily on the basis of SIGINT, accorded completely with NSA’s views. But three days later everything changed. Kuklinski got word to CIA that the invasion was on for December 8. Brzezinski met with the president on Sunday, December 7, to discuss the impending invasion. Carter agreed to issue a public statement, coupled with a direct message to Soviet premier Brezhnev and overtures to Allied governments. Monday came and went, without movement by Soviet forces. On December 19, Kuklinski sent word that the invasion had been postponed, and he alleged that the principal reason was worldwide reaction to the impending move.⁷

~~(TS//SI-UMBRA)~~ NSA, looking only at the SIGINT, did not know what the Soviets planned, but did not believe that they ever issued the final orders. The communications patterns were not right for an invasion, and NSA experts believed that the entire thing was an exercise to put pressure on the Poles. NSA reporting was consistent and unwavering – no invasion was in the offing. There would be no second Czechoslovakia.⁸ This was either a prescient view of events based on a healthy helping of reality or a myopic view of the world based on incomplete information.

~~(S//SI-SPOKE)~~ Even before Kuklinski’s December 19 report, SIGINT depicted a calming of the waters. Contingency communications were closing down and troops were being taken off alert.⁹

~~(TS//SI-UMBRA)~~ The Polish crisis was left over for the incoming Reagan administration. In the spring of 1981 Warsaw Pact exercise patterns and troop movements put NSA on alert, but this subsided without Soviet invasion. But the issue continued to bubble in the East Bloc. The Soviets applied pressure on Jaruzelski to take a harder line – Jaruzelski stalled for time, hoping for a breakthrough with Solidarity that would forestall a Soviet military move. The long-running crisis continued through the summer.¹⁰

~~(TS//SI-UMBRA)~~ The Soviets wanted the Poles to declare martial law and suppress Solidarity. Jaruzelski continued to resist, but drew up plans for the inevitable. During the fall of 1981, Kuklinski managed to smuggle the document out of Poland, and CIA had a copy of it in November. Meanwhile, SIGINT showed what it had shown a year before: Warsaw Pact forces appeared prepared, but no final orders appeared to have been issued. When martial law was finally issued on December 12, the Reagan administration found out about it through the press.¹¹

~~(TS//SI-UMBRA)~~ The imposition of martial law hardly ended the chaos in Poland. Solidarity and the government continued to confront each other across frequent picket lines; in some ways the situation in January was worse than in December. But the Soviets had washed their hands of it. It was up to the Polish government to work its way out of the situation; the USSR would not be coming to its rescue. Warsaw Pact communications subsided, and military forces simply went back to garrison. No amount of confrontation in Poland reversed the process.¹²

~~(TS//SI-UMBRA)~~ Based on an intensive analysis of Soviet communications, NSA contended through the crisis line that the Soviets were not ready to invade. This turned out to be right, but in this case it was not the best source on Warsaw Pact thinking. Kuklinski was the best source, and Langley had the martial law plan almost as soon as it was drafted. It was one time when HUMINT provided the best information.¹³

~~(S)~~ Many analysts felt that Afghanistan played a critical role in the Soviet decision. Certainly no country relishes a two-front war. But in any case, American intelligence, through judicious use of both HUMINT and SIGINT sources, had about as good a handle on the Polish crisis as could have been obtained. It is conceivable that the Politburo itself did not have any better idea of what Brezhnev's next move would be during the crisis.

(U) *The Second Cold War*

(U) The most distinguishable characteristic of American foreign policy during the Reagan administration was hard-line anticommunism. Reagan's views were so well-known that they apparently induced great consternation in Moscow. The Soviet view of Reagan was confirmed when, barely two months into his first term, Reagan referred to the USSR as the "focus of evil," and seized every opportunity to brand the Soviet Union as an international outlaw. The Soviets reciprocated by launching a propaganda blitz, at one point comparing Reagan to Hitler. This was not in the spirit of detente.¹⁴



(U) Yuri Andropov

(U) Militarily, the Reagan administration opened a campaign of psychological military warfare. American aircraft, especially from the Strategic Air Command, probed East Bloc borders in increasingly provocative flights. SAC sent B-52 flights over the North Pole to see what the Soviet reaction would be. The Navy was by all odds the most daring, however. Two huge naval exercises – one near the Murmansk coast in 1981, the other in the Sea of Okhotsk in April of 1983 – served notice that Allied naval forces would intrude into what the Soviets had come to regard as their own private lakes. The Navy also delighted in using sophisticated evasion techniques to elude the USSR's ocean reconnaissance systems. These techniques would frequently be turned against the Soviets in high-tech sub-shadowing exercises.¹⁵

(U) These actions were calculated to induce paranoia, and they did. In early 1981, KGB chief Yuri Andropov, who had apparently come

to believe that the U.S. had decided to launch a first nuclear strike, launched Operation Ryan. Ryan was an attempt to get as much information as possible about this supposed attack. The scare peaked in 1983. In February of that year the U.S. began the deployment of nuclear-armed Pershing missiles. In March, Reagan made his famous "evil empire" speech, and only two weeks later he announced the inauguration of his Strategic Defense Initiative, later dubbed "Star Wars."¹⁶

(U) Cold War hysteria reached a peak in the autumn of the year with two events: the Soviet shootdown of KAL-007 (see page 320) and the NATO exercise Able Archer. The latter was an annual NATO command post exercise of a distinctly nonthreatening nature. But in 1983 the scenario was changed to involve the secretary of defense, the chairman of the JCS, the president, and the vice president. Moreover, Able Archer 1983 added a practice drill that took NATO forces from the use of conventional forces through nuclear release. This, says Gordievsky, was interpreted in Moscow as the possible initiation of a preemptive strike, and this extremely dangerous postulation was used as a spur to intensify intelligence collection. It also, according to the same source, resulted in a very high state of KGB alert.¹⁷

(U) A last bit of melodrama was provided by the "Bogus War Message" of 1984. This bizarre episode had its origins in Reagan's penchant to ham for the microphones. Just prior to his weekly radio address on August 11, 1984, he was asked to do a voice check. Not content to do a routine countdown, he said "My fellow Americans. I'm pleased to tell you today that I've signed legislation that will outlaw Russia forever. We begin bombing in five minutes." Although this was supposedly off the record, it was overheard by all three networks and was broadcast over NBC and ABC. The Soviets took a very dim view of the incident, calling it "unprecedentedly hostile toward the USSR and dangerous to the cause of peace."¹⁸

..... ~~(S//SI SPOKE)~~ Just four days later, USN-39 at Kami Seya intercepted a strange message [redacted] informing the Soviet Pacific Fleet and probably a strategic military audience that "war has begun with the United States of America." By the formatting, it was clearly practice traffic, and a cancellation message was intercepted four hours later. NSA's summary of the incident two days later stated that "All available evidence suggests that both the codewords and the plain language alert notification were unauthorized actions." In a twisted way, it seemed to be retaliation for Reagan's remarks.¹⁹

~~(S//SI)~~ Project Ryan appears to have been primarily a KGB phenomenon. According to NSA officials watching events in 1983, it did not result in a general state of readiness in the armed forces, nor did it come down through SIGINT sources in any stark shape.²⁰ But even if Ryan had never existed, rumors of it accurately depicted the psychological state of the new superpowers in the early 1980s.

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

SERIAL=
2/I9/2515-84
DE [] #2066 2292315
ZNY MMNSH
ZKZK ZZ RID SOL ZNN DE
Z 162310Z AUG 84 ZYH
FM USN-39
TO USN-39 []
ZEM . . .
~~S E C R E T SPOKE~~
XXMMENF01FI984229

SERIAL: 2/I9/2515-84 SPOT REPORT

TAGS: []

SUBJ: BOGUS NOTIFICATION OF WAR BETWEEN SOVIET UNION AND UNITED STATES OF AMERICA

REQS: 0R000

TEXT:

(SC) AT [] ON 15 AUGUST 1984, []

[] INFORMED A SOVIET PACIFIC OCEAN FLEET, AND PROBABLY A STRATEGIC MILITARY AUDIENCE THAT "WAR HAS BEGUN WITH THE UNITED STATES OF AMERICA."

(SC) THE STATEMENT WAS CANCELLED BY []

DECL: OADR

XXHH

#2066

NNN

SEE CHANGE ONEUSN-39 170827Z AUG 84 FOR TEXT CHANGE

===EOD===

~~(S//SI SPOKE)~~ Product report from USN-39

(U) KAL-007

(U) Shemya

~~(S//SI SPOKE)~~ Late in the evening of August 31, 1983, a lone EC-135 Cobra Ball aircraft took off from Shemya. Its mission was to monitor the re-entry telemetry of a Soviet SSX-24 missile that, according to DEFSMAC, would be launched before dawn the next day to impact off the Kamchatka coast. Soviet air defense facilities first picked it up at about 2245 local and tracked it routinely throughout its flight along the Kamchatka periphery. It left Soviet radar coverage just before 0200 the next morning, August 31, and got back to Shemya at 0322 Japan time, 1 September.²¹

~~(S//SI SPOKE)~~ Meanwhile, at 0051 Japan time, the Soviets began tracking a second aircraft. Confused, they first identified it as a probable RC-135 SIGINT collection aircraft. This new track headed southwest parallel to the Soviet coastline. But, in a highly unusual move, it continued on a direct flight path, over the southern tip of Kamchatka Peninsula.

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(See map) It never got within seventy-five nautical miles of the Cobra Ball, which crossed the new track on its way back to base.²²

~~(S//SI-SPOKE)~~ The Soviets launched two fighters in pursuit of what they thought was a U.S. reconnaissance aircraft. Possibly surmising that the new aircraft would fly east out of Soviet airspace as soon as fighters were launched, the ground controller vectored the pilots in the wrong direction. Instead, the intruder continued south in a straight line, seemingly unconcerned about Soviet reaction. It left Soviet airspace only a few minutes later and proceeded south across the Sea of Okhotsk.²³

~~(S//SI-SPOKE)~~ The ESC unit in Elmendorf, Alaska, intercepted the Soviet tracking. The intruder was reflected as a hostile raid, number 6065, with negative IFF. But Elmendorf was unconcerned, believing it to be practice tracking.

(U) But it was a real aircraft. Early on September 1, Korean Airlines flight 007 had taken off from Anchorage, Alaska, on its way to Seoul. It was programmed to fly commercial track R20, which skirted Soviet airspace along Kamchatka. It was obviously off course.

~~(S//SI-SPOKE)~~ At 0246 local it was redetected by Soviet air surveillance facilities, this time just north of Sakhalin Island. This time it was not identified except as a "negative IFF" target. Fifteen minutes later two SU-15 air defense fighters took off from Sokol, a fighter base on southern Sakhalin Island, and headed straight for the intruder. Fifteen minutes after that, a Soviet radar station reported that the aircraft had crossed into Soviet airspace over Sakhalin, even as one of the SU-15s maneuvered behind it.²⁴

(U) While the SU-15 maneuvered, the airline pilot was engaged in routine conversations with the tower at Narita airport, outside Tokyo. At 0320 the tower controller gave KAL-007 permission for an altitude change, and three minutes later the pilot reported that he had climbed to the new altitude and had leveled off. At 0327 the controller tried to contact KAL-007, but the answer was lost in a haze of static. Tokyo tower never heard from KAL-007 again.²⁵

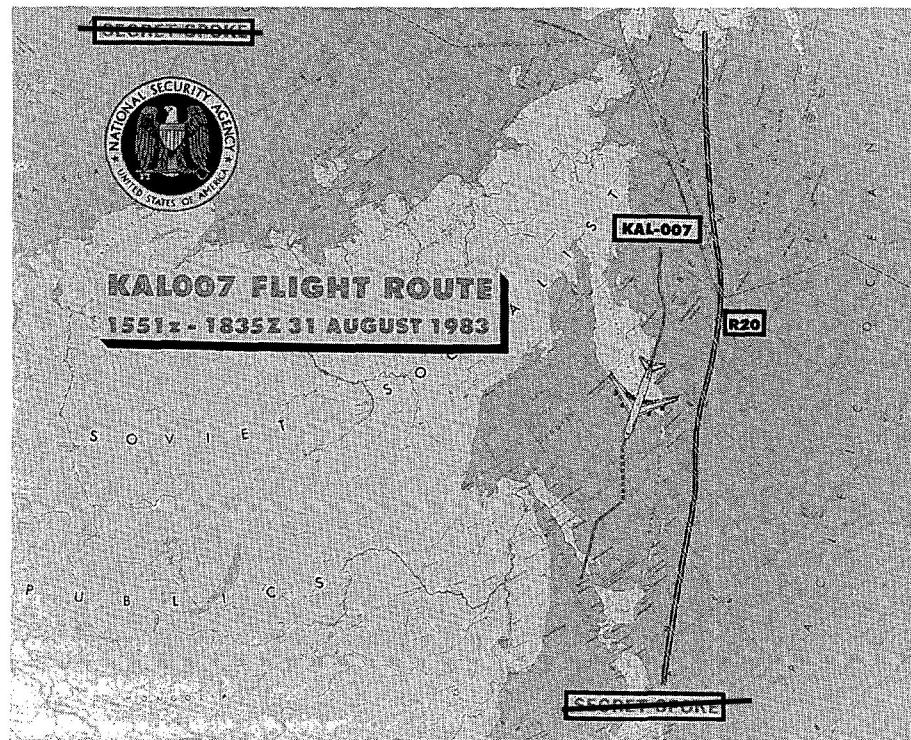
(U) Misawa

~~(S//SI-SPOKE)~~ It had been a typically slow mid shift on the ground at the Air Force collection site at Misawa, Japan. But sometime after 0300 an analyst raced to the plotting board with a fist full of intercepted traffic and began frantically plotting a tangle of air defense raids in the vicinity of southern Sakhalin. She tapped on the plexiglass plotting board, a clue to the reporting supervisor that she had something hot. Everyone turned to look at the activity. The raid was identified as a "border violator" at 9,000 meters. Beginning at 0328 it began a spiral descent, and at 0330 it had plummeted to 5,000 meters. Eight minutes later the Soviet facilities stopped reflecting it altogether. At the time, at least five Soviet fighters were shown in reaction.²⁶

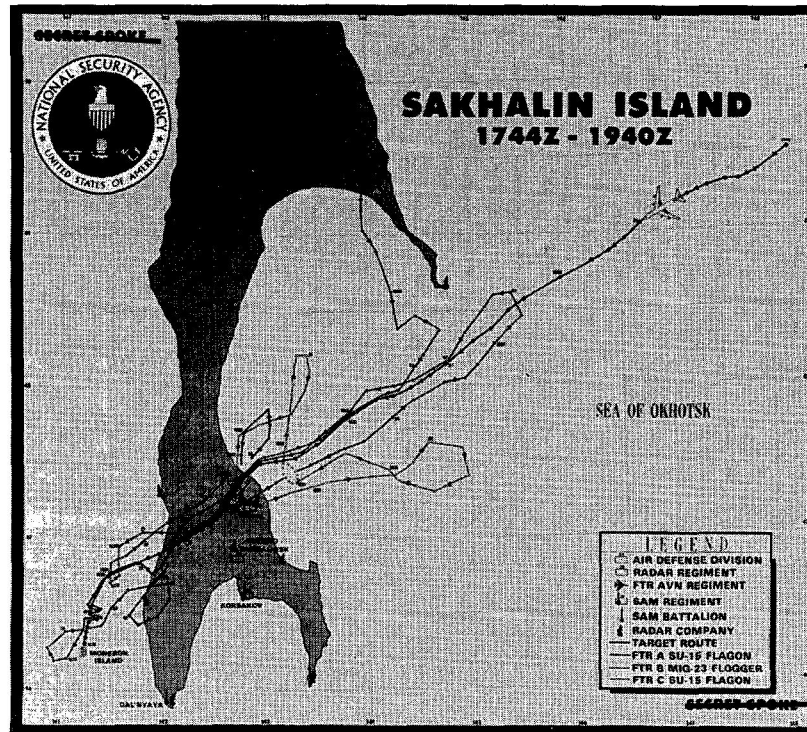
~~(S//SI-SPOKE)~~ [REDACTED] the senior analysts on duty, briefly discussed the possibility of practice tracking, but they discovered that more than

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~



~~(S//SI SPOKE)~~ KAL-007 flight route



~~(S//SI SPOKE)~~ Tracking details of the shootdown

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

one radar site was reporting the same tracking, a strong indication that they had valid traffic. Calls to 5th Air Force produced no information. So [] got in touch with USA-34. Elmendorf reported that they had intercepted tracking of the same raid, 6065, earlier in the morning, but thought that it was practice tracking and had not reported it.²⁷

(S//SI) [] contacted NSOC with his concerns, but was advised that it was practice tracking. A Klieglight series was sufficient; no product report should be issued. [] argued, but was overruled by the A Group Senior Coordinator. Still, he was convinced: "...there was no doubt in my mind that it was actually valid tracking. I still had absolutely no idea who it was."²⁸

(S//SI) Four hours passed. The day shift relieved mids, and [] briefed the new reporting team on the activity. Then, just before eight in the morning, 5th Air Force was on the phone. A Korean civil airliner had disappeared near Hokkaido and was reported to be two hours overdue in Seoul. Misawa people knew what they had, and at 0905 local the day shift surveillance and warning supervisor, [] issued their first Critic of the year.²⁹

(S//SI SPOKE) A bitter long-range argument ensued between NSOC and Misawa about the Critic. The SOO believed that the incident did not meet Critic criteria and demanded cancellation. Instead of cancelling the Critic, Misawa issued a follow-up. This provoked more arguments over the Opscomm. An hour later Misawa cancelled the Critic. But almost immediately they received information that Soviet SAM controllers had been overheard discussing the incident and confirming that a Soviet pilot had shot down the aircraft. With this iron-clad confirmation, Misawa issued a second Critic.³⁰

(U) Wakkanai

(S//SI SPOKE) There is a [] intercept site at Wakkanai, on the northernmost tip of Hokkaido, which is itself the northernmost point of land in Japan. The wind constantly blows across the frozen, stubby hills surrounding Wakkanai - a Japanese Siberia. It was originally a Security Service unit placed there to copy VHF communications from southern Sakhalin Island. In 1983 the successor command, ESC, had been given approval to reopen temporarily for a hearability test under the name of []

(S//SI SPOKE) The [] operators worked only days and eves; when they left for the night, they kept the recorders on and the receivers tuned to the standard Soviet air-to-ground frequency. But [] linguists routinely worked around the clock, and early on the morning of September 1 they were transcribing tapes. The receivers were active, and when the oscilloscope spiked on the air-to-ground frequency, the transcriber reached over, switched on the tape recorder, and kept transcribing. What he heard in the background from the speaker on the intercept position was apparently a live missile firing of some sort, followed by Soviet pilots returning to base. The conversations sounded normal, but a live

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

missile firing at night was highly unusual. Since their secure phones were down because of a crypto problem, they could not call Misawa to ask for further information.³²

~~(S//SI SPOKE)~~ At about eight that morning the weary mid-shift workers were packing to go back to the barracks when they received a phone call from Misawa. (It appears that Misawa was making the call at the request of Major General James O'Donnell, commander of 5th AF.) The analyst at Misawa began reading a just-published UPI dispatch:

A Korean Air Lines jumbo jet flying from New York to Seoul Wednesday with 269 people aboard, including a U.S. congressman, was forced to land on Sakhalin, a Soviet-occupied island north of Japan. The congressman was identified as Larry MacDonald, Democratic representative of Georgia....

The transcriber who had overheard the Soviet voices knew immediately what they had been talking about. He had overheard the Soviets in the act of shooting down a civilian airliner.

~~(S//SI)~~ With that, all semblance of normality vanished. Every linguist at the site was called to listen to the tape. They then called Misawa back with the word "Roger, we have an LMF" (live missile firing). No one went to bed – they spent the rest of the day transcribing that small section of tape, readying it for the inevitable avalanche of questions.³³

~~(S//SI SPOKE)~~ Wakkanai continued to monitor Soviet communications, and that afternoon they intercepted the conversation that sealed the matter. Two Soviets at a SAM unit in southern Sakhalin were talking:

Station a: (They) shot down (1-2 words garbled) an RC-135 (1 garbled) at Moneron.

Station b: I don't understand

Station a: At Moneron (they) shot down as RC-135.

Station b: Really?

Station a: Yes

Station b: Who?

Station a: Who? We (1 garbled) from Sokol....

Station a: Then our pilots told us that it was not an RC-135, but it was a passenger (plane).³⁴

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

(U) Tokyo

~~(S//SI)~~ In downtown Tokyo, Terry Lantz, [redacted] got a call from Hugh Erskine, the NCRJ operations officer, soon after he arrived at 0800. Erskine had a Klieglight from [redacted] about the Soviets shooting down "an aircraft of unknown nationality" using a MiG-23. Obviously the Japanese had information on the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

same activity, and Lantz was told to get permission to get the voice tapes. Lantz reported back two hours later that [] did have intercept, but getting copies of the tapes would be a very bureaucratic process.³⁵

(S//SI) At Yokota Air Base, NCRJ people were told to get both Japanese and American tapes back to Fort Meade - to pull out absolutely all the stops, that they were wanted at the White House on Saturday. Somehow, the people in Japan needed to make a Pan Am flight departing Narita at 1300 the next day. That morning, September 2, [] gave his permission. At Wakkanai, the American [] director, Joseph Sausnock, walked over to the Japanese site across the street from the American facility. After drinking a couple of ceremonial cups of Japanese green tea, the Japanese site commander handed over the tapes, which Sausnock put into a flowered Japanese shopping bag and, as casually as he could, walked back to his office.³⁶

(S//SI) Meanwhile, a U.S. Navy courier flight was on its way to Wakkanai for the tapes. It barely hit the runway and was off again with the flowered shopping bag full of tapes. At Misawa the bag of tapes was whisked to the far end of the runway in a black sedan, where a Navy jet fighter was waiting with engines running. The tapes were thrown into the back seat and the plane shot down the runway. An hour later it landed at the Naval Air Station at Atsugi, south of Tokyo, where it was hoisted into a helicopter for the ride to Narita, the international airport north of Tokyo. There, NCRJ people were waiting with the Pan Am representative. Pan Am delayed the flight about fifteen minutes while the crucial tapes were taken by an NSA official who had been designated to courier them back to Fort Meade. After takeoff, the Pan Am flight crossed the international dateline, and so landed on the East Coast that same afternoon. The tapes were at NSA that evening, September 2, having come all the way from Wakkanai in a single calendar day.³⁷

(U) Washington

(S//SI) [] senior Russian linguist on the Soviet problem, was on the golf course Saturday morning, September 3, when he got a call. "Something has happened; you've got to come in." The tragedy of a lost Saturday was made more acute because he was having a very good round.

(TS//SI) When he arrived in the Ops-1 transcription area, all was chaos. There were [] tapes, there were [] tapes, some with the pilot voice conversation, some with conversations by ground personnel, all mixed up, each in multiple copies. The shipment had arrived at

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

midnight, and linguists had been up all night processing them. [] had to be at the White House with the air-to-ground tapes by 1700 that day. So they concentrated on sorting the tapes and finding the ones that they had to take.³⁸

~~(S//SI SPOKE)~~ What [] heard when he first listened to the air-to-ground tapes was the cold voice of an experienced pilot performing a maneuver he had practiced many times. (Note: all intercepts are of pilot billet suffix 805. The voices of two other pilots were on the tapes, as they maneuvered astern of 805, who was being vectored toward the intruder. The ground controller was out of range and was not intercepted, either by the Japanese or the Americans. Not all of 805's transmissions are included here. Times are in Zulu.)

18:19:02 I am closing on the target.
 18:20:08 Fiddlesticks. I'm going, that is, my Z.G. (indicator) is lit (missile warheads are already locked on).
 18:30:30 I'm turning lock-on off and I'm approaching the target.
 18:20:49 I have broken off lock-on. I am firing cannon bursts.
 18:21:34 Yes, I'm approaching the target, I'm going in closer.
 18:21:35 The target's (strobe) light is blinking, I have already approached the target to a distance of about two kilometers.
 18:21:40 The target is at 10,000 (meters).
 18:22:02 The target is decreasing speed.
 18:22:17 I am going around it, I'm already moving in front of the target.
 18:22:23 I have increased speed.
 18:22:29 No. It is decreasing speed.
 18:22:42 It should have been earlier. How can I chase it, I'm already abeam of the target.
 18:22:55 Now I have to fall back a bit from the target.
 18:23:10 The target's altitude is 10,000 (meters).
 18:23:18 From me it is located at 70 degrees to the left.
 18:23:37 I'm dropping back, now I will try rockets.
 18:24:22 Roger, I am in lock-on.
 18:25:11 I am closing on the target, am in lock-on. Distance to target is 8 (kilometers).
 18:25:16 I have already switched it on.
 18:25:46 Z.G. (missile warheads locked on).
 18:26:20 I have executed the launch.
 18:26:22 The target is destroyed.

~~(S//SI SPOKE)~~ Going through the voice tapes, [] heard nothing about either aircraft identification or warning. Ground controllers variously identified the raid as

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

either an RC-135 or an unidentified intruder. The pilot apparently was not asked to identify or warn. Said [] later,

I never heard course changes and parallel flying, wagging their wings, blinking their lights, notification, nothing; I heard nothing....when I first turned to one of the senior people, I said 'This sounds a lot like point to point to me.' That's jargon for point to point intercept, you know that you wish to shoot down a drone, you have the identification of the target and your intent when you take off is to destroy the target.³⁹

~~(S//SI-SPOKE)~~ Comparing the voice tapes with the air defense tracking, it was clear to [] and to his analysis counterpart, [] that the identification did not matter. The aircraft had flown through Soviet airspace over Kamchatka unhindered. Air defense controllers were concerned that it not happen a second time. It took several minutes to maneuver the SU-15 into position, during which time miscommunication between the pilot and controller caused the Sukhoi to overrun the target. By the time he had once again dropped astern and readied his weapons (this time missiles), KAL-007 was exiting Soviet airspace. There was just barely time to launch the weapons, and that was what the pilot was concerned with. At no time was he concerned with either identifying the target or warning it.

~~(S//SI)~~ When KAL-007 went down, the director, General Lincoln Faurer, was on leave in Maine. His deputy, Dick Lord, organized the response. As soon as he was sure that the [] he notified the White House. His memo explained that [] and that the language factor might slow down the translation process.⁴⁰

~~(S//SI)~~ Saturday afternoon an outraged secretary of state, George Shultz, who was the ranking administration official in Washington that day, accused the Soviets of shooting the aircraft down in cold blood. He stated that the the Soviets had tracked KAL-007 for 2 1/2 hours, and quoted the pilot as saying, "The target is destroyed." Later, on ABC *Nightline*, the presidential press secretary, Larry Speakes, used Dick Lord's memo to explain why the voice tapes were not yet ready, including the information about working through Japanese language difficulties. Before the day was out [] the involvement of the Japanese, [] was public knowledge.⁴¹

~~(S//SI)~~ [] arrived at the White House just before 1700 that Saturday. They met in the Situation Room with NSC officials John Poindexter, Ken de Graffenreid, Bob Kimmel, and Oliver North and went over the material piece by piece. The NSC people wanted to know especially if any attempt had been made to warn the aircraft. [] contended that none had. [] stuck to his contention that it was a point-to-point intercept, with no thought given to warning. They also asked about the aircraft identification, but the NSA people reiterated that the voice transcripts indicated no attempt at all to identify. The NSC people informed them that they would be briefing President Reagan the next morning.⁴²

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(S//SI) [] and Lord returned to the White House at 0800 Sunday, and were ushered into the Cabinet Room, where they briefed the president. [] played the tape and gave the English translation, while [] explained what was going on and what the significance of it was. The briefing lasted only ten minutes, but the questions that followed went on for almost forty. Following that, the president conducted a highly unusual Sunday morning press conference to condemn the Soviets and demand an admission of guilt.⁴³



(U) Briefing President Reagan. Clockwise: President Reagan, George Shultz, Robert McFarlane, William Casey, and Caspar Weinberger.

(U) On Monday evening Reagan went on television again to repeat his charges and outline a program of sanctions against the USSR. To back up his charges, he played part of the tape. At the same time, administration officials were appearing on TV talk shows to condemn the Soviet shootdown. The State department frantically rounded up support for sanctions from friendly capitals. It was a full-scale propaganda blitz.⁴⁴

(U) Moscow

(U) The Soviets went into public denial. In the first official press release from Moscow, almost twelve hours after the shootdown and some nine hours after debris was confirmed floating on the ocean, *Tass* reported an encounter with an unidentified plane, which, it was alleged, failed to respond to queries and continued on its way. The next day *Tass* still denied any knowledge of the fate of the aircraft, but began hinting that it might have been some sort of "spy flight." It was not until Sunday, September 3, that Soviet official sources

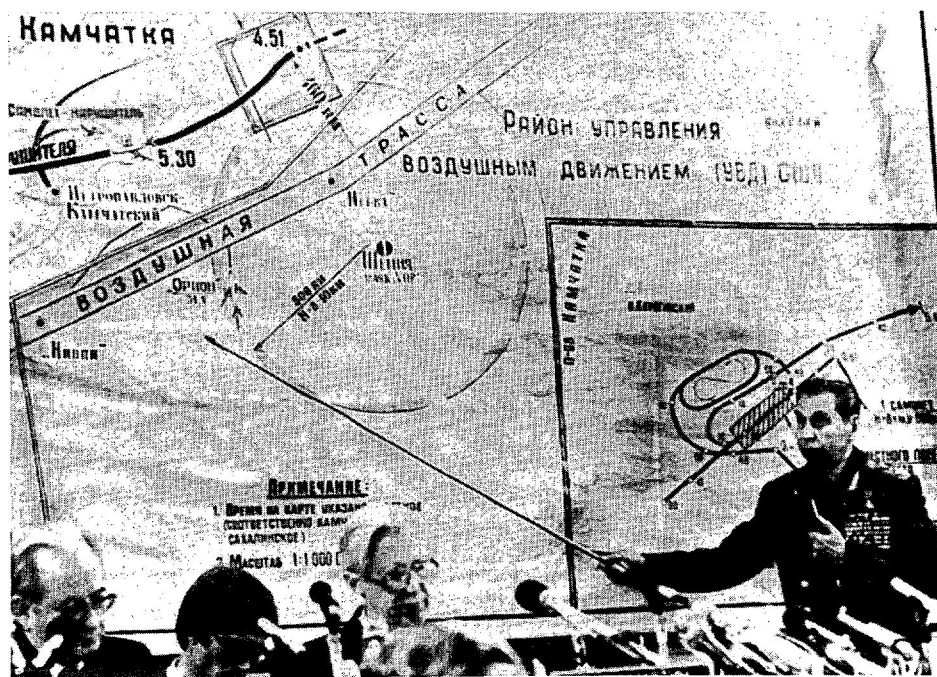
~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

admitted that it might have been the missing KAL flight; but they reiterated that it was undoubtedly on an espionage mission.⁴⁵

(U) The spy scenario was one that the Soviets repeated and embellished. A writer in the *Moscow Literaturnaya Gazeta* for September 7 alleged that KAL-007 was "...a provocation hatched a long time ago and carefully prepared by the US CIA." He went on: "It is universally known that Boeing passenger aircraft are equipped with modern control instruments and also that they can be fitted with the most advanced intelligence gathering instruments to carry out highly secret assignments."⁴⁶

(U) The Soviets did not finally admit that they had shot the aircraft down until September 6, three days after President Reagan had played the incriminating tapes. They expressed regret that it had proved to be a civilian aircraft, but held the U.S. "fully responsible," in line with their contention that its flight course had been charted by the CIA.⁴⁷



(U) Nikolay Ogarkov

(U) On September 9, with worldwide criticism mounting, the Soviets took the unprecedented action of putting the chief of their general staff on television to explain the Soviet side of the story. Nikolay Ogarkov proved to be an articulate spokesman for the Soviet story, gesticulating at the flight route on the map and hammering away at the spy theme: It has been proved irrefutably that the intrusion of the South Korean airlines plane into Soviet airspace was a deliberately, thoroughly planned intelligence operation. It was directed from certain centers in the territory of the United States and Japan. A civilian plane was chosen for the mission, deliberately disregarding or, possibly, counting

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

on the loss of human life. American radars, he asserted, tracked the flight (ignoring the laws of physics which prevented that) and would have warned the plane had it not been a spy flight. He contended that it flew in tandem with the RC-135, in a pattern designed to confuse Soviet air defense, then broke off into Soviet territory, deliberately evading pursuit.⁴⁸

~~(S//SI SPOKE)~~ A by-product of the press conference was Ogarkov's assertion that the Sukhoi pilot fired cannon bursts at the airliner. This line had originally been omitted from the official transcript because the pilot voice had been badly hit by static at that point, but when [] heard Ogarkov use the Russian words he immediately knew what had been in the garbled sentence. NSA corrected the translation after it had been released, an embarrassment which proved to be only temporary.⁴⁹

~~(TS//SI-UMBRA)~~ The Soviet postmortem had begun immediately. Within two hours of the shootdown, the Soviet Far East Military District had released a full report to Moscow. This began a series of urgent meetings in the capital from 2 to 6 September, following which a high-level investigative team was dispatched to the Far East to interrogate everyone involved and report back to the general staff. This team delivered its report on September 13, four days after Ogarkov had already given a "full report" to the world. In many ways it contradicted his press conference.

~~(TS//SI-UMBRA)~~ The "facts" in the report [] pretty much matched [] as had been originally established [] but offered significant new information. When KAL-007 approached Kamchatka, it flew into a Soviet radar zone that was under wholesale reconstruction and refitting, and not a single fighter direction post was operable on the entire peninsula that night. Because of the fragmentary radar reporting, the position of the aircraft was not known for sure until it was too late to make an intercept over Soviet territory. But air defenses on Sakhalin were alerted, and fighters were launched as soon as it crossed back into Soviet airspace.

~~(TS//SI-UMBRA)~~ Far East military authorities offered up only one bald-faced lie. They alleged that the civilian airliner and the Cobra Ball rendezvoused over the Pacific, and after one pilot reported to the other that "all was in order," they departed in different directions. An intercept of such a conversation was no more plausible than the Ogarkov assertion that American radar could track the flight throughout its route.

~~(TS//SI-UMBRA)~~ The Far East Military District commander was involved in the incident before the firing order was given, and at one point reported the situation to the commander in chief of the Far East Forces, his immediate superior. Despite this level of detail [] establish exactly who gave the order to fire, or if this order received prior approval from authorities in Moscow.⁵⁰

~~(S//SI SPOKE)~~ Soviet reactions to KAL-007 were a product of history. The insular nature of the regime had produced over years an obsessive concern with safety and secrecy, a concern that NSA had documented many times. The 1983 shootdown was, in fact,

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

preceded by a similar incident involving a Korean Airlines commercial flight five and a half years earlier. On April 20, 1978, a KAL 707 flying from Paris to Seoul by way of Anchorage strayed into Soviet airspace over the Kola Peninsula. Soviet Air Defense launched several fighter sorties in an effort to catch the errant plane. Flagon E out of Afrikanda was first to catch up with the intruder. First thinking it to be a possible U.S. reconnaissance flight, the pilot discovered it to be a Korean Airlines passenger flight (which he incorrectly identified as a 747). The controller demanded that he shoot it down. The pilot protested, pointing out that he was equipped with air-to-air missiles, not cannons – a single shot was much more likely to destroy the plane. The controller insisted. Finally the pilot launched a missile that exploded close to the flight, killing two passengers and injuring several others. His controller demanded a second shot, but the pilot again demurred, contending that the aircraft was descending too rapidly for that. The Flagon pilot broke off the attack and returned to Afrikanda.

~~(S//SI-SPOKE)~~ Meanwhile, the crippled airliner dropped like a stone from 35,000 feet to 3,000 feet. It then flew an erratic pattern across northern Russia, finally crash-landing more than an hour later on a frozen lake south of the White Sea. The Soviets sent waves of helicopters to the site, where they picked up the passengers and took them to a nearby town. After a few days they were returned to the West by a Pan American rescue flight. Although NSA had detailed information on the incident, there was no demand to release information in 1978.⁵¹

~~(S//SI-SPOKE)~~ The Soviet concern for border security had escalated to paranoid intensity by August of 1983. The Reagan administration's campaign of psychological warfare and border probing had been bringing up the temperature for two years. Soviet tempers boiled over in April of 1983 as a result of the U.S. naval exercise in the Sea of Okhotsk. By Soviet accounts, the U.S. Navy flew bombing runs on April 4 that penetrated deeply into Soviet airspace in the militarily sensitive Kuril Chain area, and led to an Andropov-issued shoot-to-kill order. Following the April exercise, Soviet reactions to U.S. reconnaissance almost went through the roof.⁵²

(U) New York

(U) U.S. ambassador Jeane Kirkpatrick represented the United States at the UN. The Reagan administration intended to lay the wood to the Soviet Union, and she was well equipped to do this. Acerbic even in calm seas, she could be ferocious in a fight.

—(U) After listening to denials from the Soviet ambassador, she launched an attack reminiscent of Adlai Stevenson's charge during the Cuban Missile Crisis in 1962. She played the tape [redacted]

[redacted] following which she made a point-by-point refutation of Soviet denials and evasions: Contrary to Soviet statements, there is no indication whatsoever that the interceptor pilot made any attempt either to communicate with the

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

airliner or to signal it to land....at no point did the pilots raise the question of the identity of the target aircraft....At a distance of two kilometers, under the conditions prevailing at the that time, it was easily possible to identify a 747 passenger airliner. Either the Soviet pilot did not know the Korean plane was a commercial airliner, or he did not know what he was firing at [sic].⁵³ Her interpretation of what had happened was near perfect, and her language was supported by the voice transcript. Her more general charge later in the speech about historic Soviet brutality and disregard of international law had much less to do with the evidence, and was part of the Reagan administration's diplomatic offensive against the USSR. KAL-007 simply opened the door of opportunity.



(U) Jeane Kirkpatrick

(U) The Postmortems

(U) When it was all over, the intelligence community, as well as the journalistic world, had some reassessing to do. What did the Soviets know, and when did they know it? What did the intelligence community know, and how did they use it? And what contributions did the White House make to the situation?

(U) To answer the last question first, the White House pounced on the shootdown and squeezed it dry of propaganda value. It was one of those opportunities that comes but once in a lifetime. There is no question that the Reagan administration made the very, very most of it. In years following the collapse of the Soviet Union, a Russian journalist assessed it as the single most disastrous propaganda defeat they ever suffered.⁵⁴

~~(S//SI)~~ It would not have been such a great coup, however, but for the stubborn insistence of some key NCOs at Misawa. When they first reported the information, they were ignored. They protested. They were told to forget it. They reported it anyway, and were told to cancel the report. They delayed for almost an hour, hoping that something would turn up. It did, just minutes after they had finally cancelled the report. So they reported it again. The NSA assessment tried to be even-handed: "Some interpretive problems surface dealing with the initial decision-making stages of the activity....no definite error in either's decision is apparent." Looking back on it four years later, General Faurer mused that the SOO's decision to have Misawa cancel the first Critic was "within what ought to be the expected envelope of human fallibility."⁵⁵

~~(S//SI)~~ This was exculpatory but wrong. Misawa's stubbornness put the intelligence community ahead of a curve that it absolutely had to be ahead of. To have missed the shootdown, and to have been jerked back into the picture by some outside, inquiring force,

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

would have besmirched NSA's reputation and called into question its capability to warn. While no one in NSOC was technically on a blacklist, the real heroes were in Misawa.

~~(S//SI)~~ Once set in motion, the cryptologic system performed more than passably well. From the executive leadership of Dick Lord, to the seat-of-the-pants innovativeness of the cryptologic people in Japan who got the voice tapes back to NSA, to the contributions of [redacted] in the White House, the people in the system responded extremely well. It was an example of how quickly a large and far-flung bureaucracy could move once pricked. It is hard to see how anyone could have done better. Seymour Hersh, one journalist who got most of the story right, singled out NSA for excellence and for a non-political approach. (He did not, however, have kind words for the Reagan people.)⁵⁶

~~(TS//SI//TK)~~ How did the cryptologic community fare concerning the amount of classified material released? Considering only the voice tapes and flight tracking, the incident resulted in virtually no damage. The Soviets had known for years exactly what the U.S. capability was, and the KAL-007 shutdown told them nothing. It had a far more serious impact on NSA's relations [redacted] received instructions which hamstrung it in future cases of this nature, much like the restrictions that the [redacted] Heavy governmental interference did nothing for the cause of cryptologic cooperation, and had a lasting effect on the closeness of those ties.⁵⁷

~~(TS//SI//UMBRA)~~ The most damaging were the persistent leaks from the White House following the release of the voice tapes, [redacted]

[redacted] William Casey decreed on September 21, 1983, that "...it is now time to circle the wagons and stop talking." But the Reagan administration, in some ways the most porous in memory, could not seem to stop talking.⁵⁸

~~(S//SI//SPOKE)~~ And, finally, how culpable were the Soviets in the incident? No question, ground controllers thought they were tracking an RC-135. Given the paranoia that had existed since April, it was unthinkable that such a penetration could be permitted without action. A scenario like that would place everyone's jobs at stake.

(U) The Soviet SU-15 pilot claimed that he did not recognize it to be a civilian airliner. Flying in the dim light of an early dawn, with the cabin blacked out so passengers could sleep, it could have looked like a military aircraft from a distance. The size of the silhouette, the rotating beacon, argue the opposite case. But far more egregious errors of visual identification are made every day, and were made during the attack on the *Liberty* in 1967, to name just one case.

~~(S//SI//SPOKE)~~ The entire shutdown proceeded like a pilot working through a checklist. The identification part of the checklist was long past - he was concerned only

EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

with altitude and angles, with preparing missiles and launching before the intruder left Soviet airspace. That was his job.

(S//SI) NSA reporting, once it got going, was right on the mark. It dispassionately recounted the incident from the Soviet perspective, from their own communications. It was the Reagan people who insisted that the Soviets could not have mistaken a 747 for a 707. That was their value judgment. It was wrong, but not so wide of the mark that one can impute anything more sinister than righteous wrath. It was the height of the Second Cold War.

(U) VERIFICATION

(U) SALT II was never ratified by the Senate, thus leaving a huge question mark about the fate of strategic arms limitation. In the absence of a ratified treaty, however, both sides decided independently to abide by the provisions of the draft. When Reagan became president, that was how matters stood.

(U) Reagan, too, continued the informal arrangements that the Carter administration had left him. But under Reagan there was much less trust. The issue of a "Soviet strategic breakout" from the treaty was never far from anyone's mind, and the intelligence work to discover such a "breakout" was intense. In late 1982 intercepted telemetry from a Soviet missile test showed 95 percent encryption, the first time Soviet telemetry encryption had ever hit that level. The intelligence community assessed that above 70 percent amounted to denial of capability to monitor treaty compliance. The next year, as the debate of telemetry encryption continued to rage, an advisory committee reported to the president on a long history of Soviet arms control treaties, including SALT I. The report reinforced Reagan's natural tendency to distrust the Soviets anyway.⁵⁹

(TS//SI UMBRA//TK) SIGINT and photography were the two primary forms of "national technical means of verification." Both were in high gear, thanks to generous funding over the years. From the SIGINT side, the main sources were three satellite systems: [redacted]. In addition, the U.S. site in Sinop, Turkey, provided valuable information on launches of short- and medium-range missiles from Kapustin Yar Missile Test Range. The most critical gap was the loss of the Tacksman sites in Iran. When Reagan came in, this had not yet been solved except [redacted]. This was pretty much the story of the effort against missile launches.⁶⁰

(S//SI) Reentry was a different story. For that, several collectors were used: the Cobra Dane phased array radar on Shemya, the Cobra Ball EC-135 collection platform flying out of Shemya, and [redacted] (the Cobra Judy program).

OGA

(S//SI) Cobra Judy was a floating collection platform in the Pacific Ocean configured specifically for downrange missile shots. But it was the strangest ship in the Navy. Although it was piloted and operated by the Navy's Military Sealift Command, [redacted]

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Organization. The program was conceived in 1975 as a way to replace ships with a similar mission, the *Vandenberg* and the *Arnold*, with something specifically configured for the collection of intelligence from Soviet ballistic missile reentry vehicles. The Air Force selected an aging cargo vessel originally launched in 1953. It had bounced around between drydock, mothball and operational status for years. When the Air Force found it, the vessel was serving as a launching platform for Poseidon missiles undergoing test. To convert it to intelligence uses, the Navy had to remove four missile launch tubes. Then it had to install a 250-ton phased array radar in the rear, and various other collection systems. The SIGINT component went by the name of Cobra Judy.

~~(S//SI)~~ Cobra Judy's primary function was telemetry collection, with COMINT being an additional mission. It became operational in 1981 and added considerably to the collection capability against Soviet missile tests.⁶¹



~~(S)~~ In 1983, the Reagan administration decided that all future U.S. ICBMs would have encrypted telemetry, partly in retaliation for the earlier Soviet decision to encrypt theirs. Within NSA the debate raged hot. The INFOSEC side argued that it was better to deny Soviets the national technical means of verification, but DDO argued in return that the Soviets did not need to analyze telemetry to keep up with American missile technology - there were plenty of other sources. The U.S., on the other hand, possessed only telemetry as a source and should continue to press the Soviets to use unencrypted telemetry. To encrypt U.S. telemetry would be to give up the argument. In this case the defense won, and U.S. telemetry became unreadable.⁶²

(U) The Relocatable Targets Problem

~~(S//SI)~~ Monitoring the Soviet operational force was the key to SALT verification. This was done, with varying levels of success, through a combination of technical sensors, in which SIGINT played a large role.

~~(TS//SI-UMBRA//TK)~~ The most difficult part of the process was keeping track of Soviet ballistic missile submarines. Through a combination of overhead photography and SIGINT, the U.S. kept a fairly accurate picture of how many "boomers" were out on patrol from each fleet (Northern and Pacific). Once on patrol, however, boomer location was a very difficult problem. Through occasional hits from the SOSUS array and by geolocating submarine [redacted] the intelligence community kept tabs on generalized SSBN locations. This was periodically supplemented by special Navy [redacted] projects, which

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

[redacted] But except for the latter, this was hardly accurate enough for targeting. What it yielded was threat warning information – too many boomers on patrol might be a cause for alarm – that was about all. Submarines were the most difficult part of the Soviet strategic threat to keep track of.⁶²

~~(TS//SI UMBRA//TK)~~ The strategic bomber picture was a little clearer. Through photography and SIGINT, the U.S. could keep tabs on bomber locations.

[redacted]

EO 1.4.(c)
PL 86-36/50 USC 3605

~~(TS//SI UMBRA//TK)~~ At the time, DIA was intensely interested in trying to intercept and exploit Soviet IFF [redacted] DIA called the project Sudden Dawn and proposed to demonstrate the concept [redacted] NSA was cool to the possibilities of IFF exploitation, but realized that the same equipment and concept could

[redacted]

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

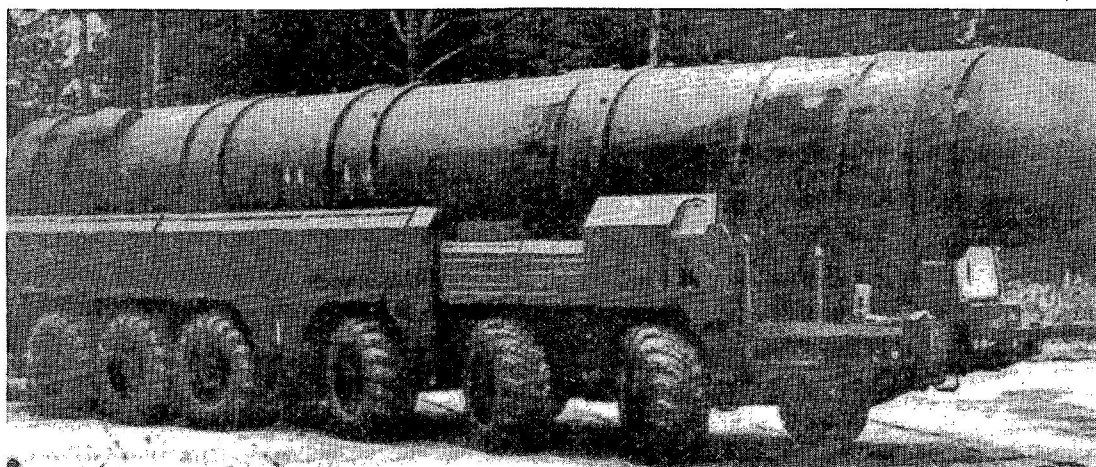
EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

[REDACTED]

~~(S)~~ The Soviet bomber force was aging and did not represent the main threat – missiles were the threat. Again through a combination of technical systems – photography, SIGINT, and infrared detection satellites – the silo-based missile force could be monitored with [REDACTED] But by 1981 these, too, represented a declining threat. The real threat was the relocatable missiles.

(U) The Soviets introduced the SS-20 in 1977. The SS-20 was an IRBM with a range of 5,000 kilometers, and it carried three nuclear warheads, each with a 150-kiloton weapon. This made it a threat to NATO forces. But the real news about it was its mobility. The SS-20 was the first relocatable strategic missile in the inventory.⁶⁷



(U) SS-20

~~(S)~~ SS-20 units moved into former SS-4 and SS-5 sites in the western USSR, and in the Far East they occupied former SS-7 complexes. By the mid-1980s the Soviet SRF had ten SS-20 divisions composed of 48 regiments and 405 launchers. Units in garrison were not fully operational – to achieve that, the unit had to go to the field.

~~(TS//SI//UMBRA//TK)~~ It took about an hour to tear down a garrison unit and get ready to roll. The unit would proceed to a geographical point (preset in order to improve missile accuracy) and set up again, requiring another hour for the set-up procedure. It would then be ready to fire.

~~(TS//SI//UMBRA//TK)~~ There were too many possible locations for overhead photography to find operational units more than occasionally. (The U.S. tried for several years with no success beyond an occasional lucky accident.) But the intelligence

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

OGA

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(c)
PL 86-36/50 USC 3605

[REDACTED]

(S) Following on the heels of the SS-20 was a new threat – the SS-25 ICBM. With a range of 10,500 kilometers and a deployment MO similar to the SS-20, the SS-25 soon became the highest priority in the intelligence community. The first units became operational in 1985.⁶⁹

[REDACTED]

OGA

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

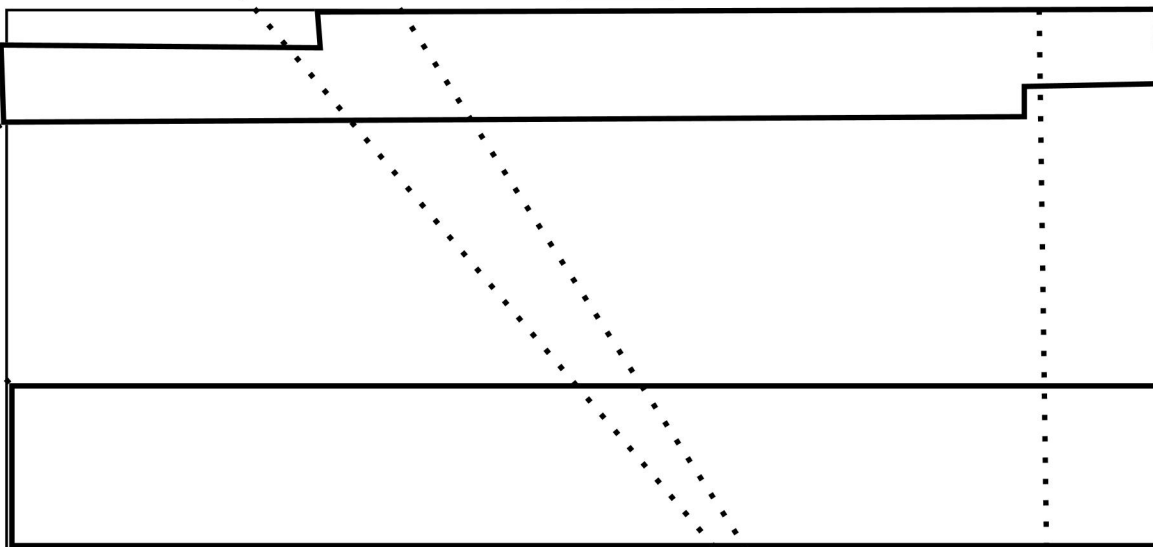
EO 1.4.(c)
OGA
PL 86-36/50 USC 3605

~~(S)~~ The relocatable target problem continued to be a research effort until 1985. Then, in July of that year, the intelligence community got its marching orders, in the form of NSDD-178. The directive was specific and unambiguous. It directed the Department of Defense "to develop a program to provide a capability to attack relocatable targets with U.S. strategic forces...." Soviet relocatable targets would be placed at risk and kept that way beyond the year 2000. "At risk" was defined as having the ability to destroy at least 50-75 percent of the force.⁷⁶

~~(S)~~ NSDD-178 generated money and priority. Essentially, the intelligence community was to remove all stops to find relocatable targets. The effort was headed by the Mobile Missile Task Force, a multi-agency committee set up within DoD to direct the effort.⁷⁷

~~(TS//SI//UMBRA//TK)~~ From NSA's perspective, this meant a period of very intensive research. It would be essential to zero in on all possible communications associated with SS-20 and SS-25 deployments, and this meant being able to commandeer overhead systems almost at will. Using NSDD-178 as justification, NSA designed a test under the name Project [redacted]. The starting point would be the three SIGINT satellites [redacted] and the test would be divided into two periods in 1986. Photographic satellites would be brought into the test using [redacted] techniques.

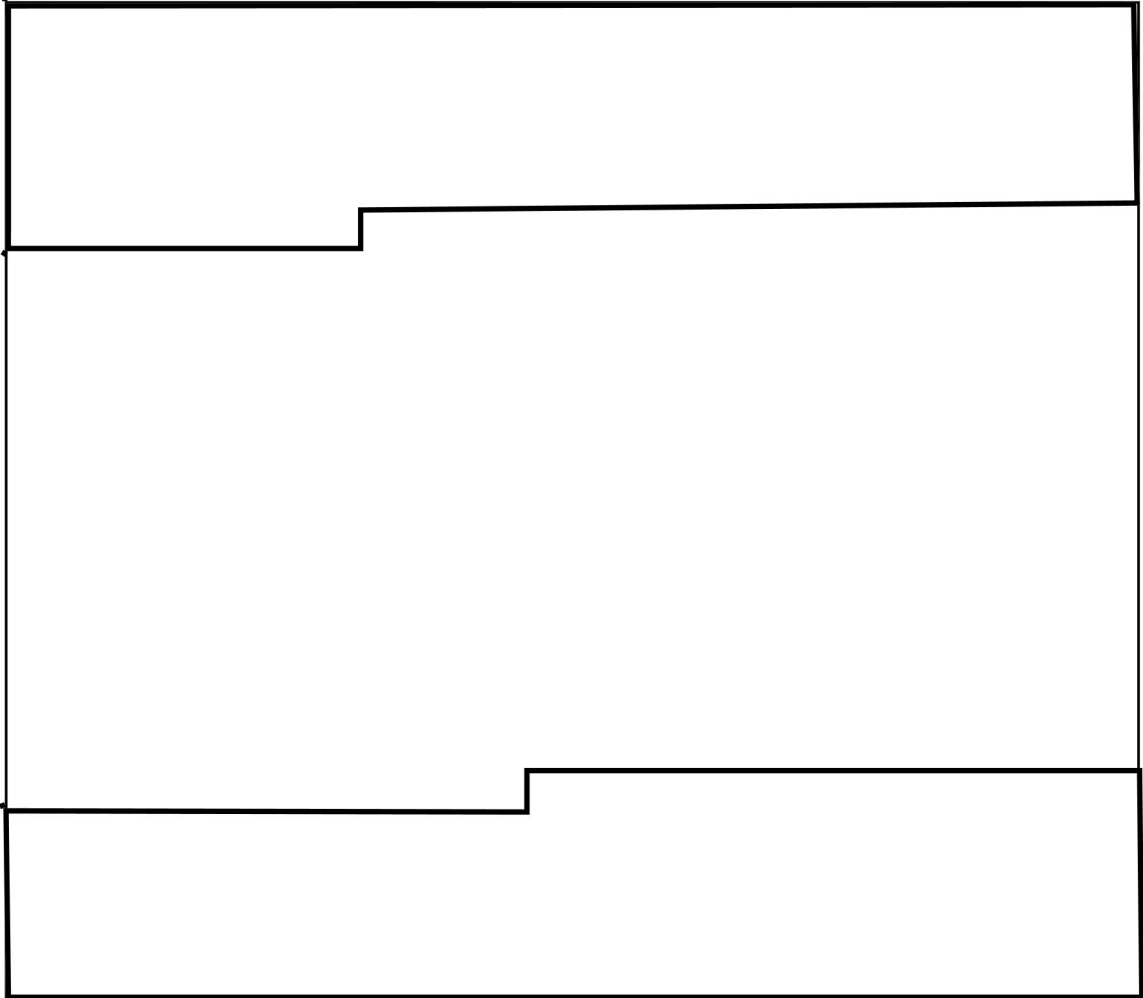
OGA

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

OGA



(U) Notes

1. (U) Interview, [redacted] by Tom Johnson and [redacted] 16 September 1997, OH 15-97, NSA.
2. (U) Carl Bernstein and Marco Politi, *His Holiness: John Paul II and the Hidden History of Our Time* (New York: Doubleday, 1996), 238-45.
3. (U) Interview, [redacted] by Vera Filby, 20 July 1992, OH 1-92, NSA.
4. (U) [redacted] interview. Carter Presidential Library, NSF, in CCH Series XVI.I., "Poland."
5. (U) *Washington Post*, 27 September 1992. Zbigniew Brzezinski, *Power and Principle: Memoirs of the National Security Advisor, 1977-1981* (New York: Straus, Giroux, 1983), 465-68. Bernstein and Politi, 259.
6. (U) Carter Library, NSF, PDB, 2 December 1980.
7. (U) Brzezinski, *Power and Principle*, 465-68. Sidney I. Ploss, *Moscow and the Polish Crisis: An Interpretation of Soviet Policies and Intentions* (Boulder: Westview Press, 1986), 47. Carter Library, NSA, in CCH Series XVI.I.,

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

"Poland." Stansfield Turner, *Secrecy and Democracy: The CIA in Transition* (Boston: Houghton Mifflin, 1985), 208.

8. (U) [] interview.

9. (U) CCH Series XII.M, Filby papers, "Polish Crisis."

10. (U) Ibid. Ploss, Moscow and the Polish Crisis, 76.

11. (U) CCH Series XII.M.

12. (U) Ibid.

13. (U) Inman interview.

14. (U) Ben B. Fischer, "The 1983 War Scare in U.S.-Soviet Relations," *Studies in Intelligence* (1995), Vol. 39, #4, 61-72.

15. (U) Ibid.

16. (U) Ibid. John Prados, "The War Scare of 1983," *Military History Quarterly* (Spring 1997), 9: 63-73. Anatoly Dobrynin, *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents (1962-1986)* (New York: Times Books Division of Random House, 1995), 522-23.

17. (U) Fischer, "The 1983 War Scare." Andrew, *For the President's Eyes Only*, 475. Prados, "The War Scare of 1983," 68.

18. (U) Facts on File, 604.

19. (U) CCH Series XII.D.

PL 86-36/50 USC 3605

20. (U) [] interview.

21. (U) ESC, *A Historical Monograph of the KAL 007 Incident* (San Antonio: Kelly AFB, 1984), in CCH Series X.J.

22. (U) DDIR files, Box 2, "KAL-007"; Box 2, "Hersh Book Assessment, Briefing for Senator Ted Stevens."

23. (U) CCH Series VIII.35 (2/AA/24155-83); A2505 Memo 27 June 1984.

24. (U) ESC, *Historical Monograph....*

25. (U) Tower conversations quoted in Amembassy Tokyo message 051354Z September 1983, as provided from Japanese authorities. Typewriter Bar Message contained in CCH Series VIII.35.

26. (U) ESC, *Historical Monograph....*

27. (U) [] interview. ESC, *Historical Monograph.*

28. (U) Interview [] CMSgt Paul Johnson, [] by Tom Johnson, 12 June 1986, OH 18-86, NSA.

29. (U) ESC, *Historical Monograph....*

30. (U) ESC, *Historical Monograph.* To add to the mix, South Korean television reported shortly after 0900 that the flight had been forced down by the Soviets and had landed safely on Sakhalin Island. This appeared to have

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

been pulled out of thin air and may have been done to calm families waiting at Kimpo Airport for the flight to arrive, according to [redacted] See interview, [redacted] by Robert Farley and Tom Johnson, 15 April 1986, OH 14-86, NSA.

31. (U) ESC, *Historical Monograph*....

32. (U) Interview, [redacted] Johnson, and [redacted] ESC, *Historical Monograph*....

33. (U) ESC, *Historical Monograph*.... Interview, [redacted] Johnson and [redacted]

34. (U) CCH Series XI.4, from a USA-38 product report repeated in NSA 2/00/14582-83, 041020Z Sep 83.

35. (U) Terry Lantz, "The KAL 007 Shootdown: A View from Tokyo," in CCH Series VIII.35.

36. (U) Interview, H. Judd Berry, by Robert Farley and Tom Johnson, 20 February 1986, OH 9-86, NSA. Interview, [redacted] by Robert D. Farley and Tom Johnson, 10 October 1986, OH 24-86, NSA.

37. (U) Berry interview. [redacted] interview. [redacted] interview. CCH Series VIII.35, message series in II.B.

38. (U) Interview, [redacted] by Tom Johnson and Robert D. Farley, 10 April 1986, OH 13-86, NSA. Berry interview. Interview, [redacted] by Tom Johnson, 1 September 1998, OH 1998-19, NSA.

39. (U) [redacted] interview.

40. (U) DDIR Memo to William Clark, William Casey, and others, 1 September 1983, in CCH Series VIII.35.

41. (U) Schultz press conference, 1 September 1983, in CCH Series VIII.35. CCH Series XI.R. Dobrynin, *In Confidence*, 536.

42. (U) [redacted] summary of events can be found in CCH Series VIII.35.

43. (U) IWO Press Review, in CCH Series XI.R. Interview, [redacted] by Robert D. Farley, 18 December 1985, OH 19-85, NSA.

44. (U) IWO Press Review, 6 September 1983, and State Department KAL Working Group Report #3, in CCH Series VIII.35.

45. (U) FBIS Bulletins in CCH Series VIII.35.

46. (U) CCH Series VIII.35. According to Soviet ambassador to Washington Anatoly Dobrynin, Andropov, though convinced that the CIA had used the aircraft for espionage, was highly upset that it had been shot down and wanted to "come clean" with the foreign press. He was talked out of it by Defense Minister Ustinov. See *In Confidence*, 537-8.

47. (U) IWO Press Review for 7 September 1983, in CCH Series XI.R.

48. (U) FBIS item 118 from Moscow domestic service, in CCH Series VIII.35.

49. (U) [redacted] interview.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

50. (U) [redacted] in CCH Series VIII.35. All important Soviet sources confirm that the decision was made in the Far East. See, for instance, Dobrynin, *In Confidence*, 538. (Dobrynin also confirms that the radar system on Kamchatka was basically inoperative that night.)

51. (U) This incident was wrapped up in 2/00/444-78, 1 August 1978; a copy can be found in CCH Series VIII.35. Other facts about the incident came from *Facts on File*, 28 April 1978.

OGA

52. (U) NSA/CSS message 261419Z August 1983, in CCH Series VIII.35. [redacted] "The 1983 War Scare...."

53. (U) *New York Times*, 7 September 1983, 15, in CCH Series VIII.35.

54. (U) *Washington Post*, September 1, 1996, in CCH Series VIII.35. Reagan Library, NSF, in CCH Series XVI.J, "KAL 007."

55. (U) P05 critique, undated, in CCH Series VIII.35. Faurer interview.

56. (U) Seymour M. Hersh, *The Target is Destroyed: What Really Happened to Flight 007 and What America Knew About It* (New York: Random House, 1986).

57. (U) DIRNSA message to NCRJ, 7 March 1985, in CCH Series VIII.35.

58. (U) DCI memo, 21 September 1983, in CCH Series VIII.35.

59. (U) Reagan Library, NSF, in CCH Series XVI.J, "SALT Monitoring."

60. (U) Folder on arms control and SIGINT, in CCH Series XII.D.

61. (U) Ch A2 files, Box 3, "RT Location Project." DEFSMAC papers, paper dated 1994. QMR, 1/79. NSA Archives, acc nr 25759, GBOL 16 [redacted] "The Cobra Judy Acquisition," *Cryptologic Quarterly* (Winter 1983), 79.

62. (U) Ch A2 files, Box 3, "RT Location Project."

62. (U) Interview [redacted] by Tom Johnson, 27 July 1998, OH 13-98, NSA. SISR Vol IV, Foreign Instrumentation Signals, June 1987, in CCH Series XII.D.

63. (U) Ibid.

64. (S//SI) [redacted] *Cryptologic Quarterly* (Spring 1997), 75-89.

65. (U) NSA Archives, acc nr 420-83Z, H03-0503-1.

66. (U) Informal interview with [redacted] by Tom Johnson, 4 February 1997.

67. (U) *Jane's Strategic Weapon Systems*, 1989, issue 0.

68. (U) Ch A2 files, Box 2, [redacted]

69. (U) Ch A2 files, Box 3, "RT Location Project."

70. (U) Interview [redacted] by Tom Johnson, OH 12-96, NSA Interview [redacted] by Tom Johnson, 23 May 1996, OH 15-96, NSA.

71. (U) [redacted] interview. Ch A2 files, Box 3, "RT Location Project."

EO 1.4.(c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

72. (U) [] interview. *Jane's Strategic Weapon Systems*, Issue 22, September 1996.

73. (U) [] interview.

74. (U) CCH Series VI.FF.7.1.

75. (U) Ibid.

76. (U) Ch A2 files, Box 3, "RT Location Project"; "Relocatable Targets Master Plan"; Box 4, "A2 Ops, General."

77. (U) CCH Series VI.FF.7.1.

78. (U) Ch A2 files, Box 2, []; Box 3, "[] final Report"; Box 3, "RT Location Project"; Box 3, "Project Illustration." [] interview. [] interview.

79. (U) [] interview.

80. (U) Ch A2 files, Box 3, "RT Location Project"; Box 4, "CSPAR Steering Group."

81. (U) [] interview.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) Chapter 23

The Rise of Terrorism and Unconventional Targets in the 1980s

(U//~~FOUO~~) The U.S. SIGINT system had developed a modus operandi in dealing with military targets which drove the functioning of the system for many years. When faced with other types of targets, however, the system tended to become unstuck and dysfunctional. Paradoxically, the Reagan period, with its focus on Soviet strategic forces, became the time when the system was first wrenched into a response to unconventional targets.

~~(S//SI)~~ They had been there all the time, of course. One of the earliest targets of the post-World War I period were the rumrunners, a target that virtually defined the successful Coast Guard SIGINT effort in the interwar period. The establishment of NSA was due partly to CIA's insistence that the SIGINT system respond to economic, as well as military, targets. But resources were hard to come by, and most of the money went to watching the Soviets and fighting the Vietnam War.

~~(S//SI)~~ In the late 1960s, as SIGINT budgets began to slide, some of NSA's prime contractors, like LTV, HRB-Singer and Sylvania, attempted to sell their wares on the international market. CIA brought this to the attention of the SIGINT Committee and thus forced NSA to pay attention to economic targets.¹

~~(S//SI-SPOKE)~~ [redacted] required the diversion of SIGINT resources to international economic targets. This, and the grain deal with the Soviets during the Nixon administration, forced NSA's compass to swing around to economic issues. SIGINT provided the best insight into [redacted]

EO 1.4.(c)
PL 86-36/50 USC 3605

(U) TERRORISM

(U) The single biggest factor in nonmilitary targeting, however, was the rise of international terrorism. Originating in the Middle East as an Arab reaction to successive military defeats at the hands of Israel, the disease spread to Northern Ireland in 1969, to the Basque country of northern Spain in the 1970s, and elsewhere. From 1968 to 1970 terrorist incidents worldwide increased 113 percent each year, and 24 percent from 1970 to 1972. The infamous Palestinian assault at the 1972 Munich Olympics was followed by a brief decline in incidents, but in 1976 they began to rise again – 41 percent each year from 1975 to 1978. Moreover, terrorists shifted their attention from property to people. In 1970 half the incidents were directed against people, but in 1981, 80 percent were.³

~~(TS//SI)~~ NSA's response was delayed by organization and methodology. From the latter standpoint, international terrorism did not use dedicated communications. Isolated

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

plotches of information tended to appear on [] links, but [] volumes were huge, and NSA did not have enough information to pick out specific links. CIA and FBI had that sort of information, but kept it very close to the vest, and NSA had a very poor connection with the two. Moreover, these [] links had such low priority that, in the absence of specific CIA or FBI targeting information, they tended to fall below the collection threshold. Other information would appear in the communications of foreign government, police, internal security and intelligence organizations, but collection depended largely on covert sites, which quite literally did not know what they should be looking for. Moreover, without corroborating evidence, it all sounded like "COMINT HUMINT," low grade ore whose validity was constantly suspect.⁴

~~(S//SI)~~ The other problem was organizational. It was not until after the Munich Olympics that NSA created an organization whose task was, specifically, international terrorism. In 1973 G Group established a branch-level organization, G77, known as "Designated Topics." In addition to terrorism, G77 was responsible for security for Secret Service protectees, nuclear proliferation, alternate energy, advanced technology, and others. It owned no collection resources, and received short shrift from those who did. It was dissolved in 1976. All that survived was a recently created centralized terrorism reporting effort, the *Summary of International Terrorism Activity*, or SITA. Created in 1976 by Richard Kern, the chief of G, it resided in an organization called G11, the Synthesis Reporting Division.⁵

~~(TS//SI-UMBRA)~~ Despite methodological and organizational problems, there were enough actual successes to indicate potential. In 1973, for instance, a terrorism bomb plot in New York was thwarted through SIGINT. A Black September cell in Turkey planned to blow up Israeli-associated offices in New York. CIA obtained the post office box number of the organization and asked NSA to watch for it [] USN-16 in Cyprus intercepted information related to the box number, [] and the FBI found and defused the bombs. The next year USN-16 intercepted information that an attempt would be made to assassinate Secretary of State Henry Kissinger during a trip to Damascus. This information was relayed to the Secret Service, which rerouted Kissinger's car, and a bomb was later found by Syrian police and the Secret Service. When, in 1976, Palestinian terrorists hijacked an Israeli airliner to Entebbe (an incident made more famous by movies and docudramas), GROF followed the hijacking live, allowing NSA to provide the most up-to-date coverage of the hijacking and the destination of the aircraft, as well as the situation on the ground once it was in Uganda.⁶

~~(TS//SI-UMBRA)~~ In 1981, following the conclusion of the Iranian hostage crisis, Dick Lord, who was then chief of G, commissioned a study to see if NSA could do better than it had been doing on the terrorist problem. At about the same time the fledgling Reagan administration directed that all intelligence agencies devote more resources to counter-terrorism. The result was the establishment of yet another terrorism shop, G713. But the effort fell into immediate trouble. It still relied on derivative collection, and got the collection scraps. It did not have enough resources to work the voice problem, which was what most terrorist organizations used in those days. Finally, it was severely hampered

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

by USSID 18, which prohibited collection of communications with both terminals in the United States. This was relaxed briefly in late 1981 when the Libyan leader Gaddhafi announced his intention to send a hit team to the United States to assassinate President Reagan.

It turned up nothing, but did give NSA valuable experience.⁷

(U) The Dozier Kidnapping

(U) On December 17, 1981, an American NATO officer, Brigadier General James Dozier and his wife Judy returned to their apartment in Verona, Italy. Within a few minutes the doorbell rang, and some "plumbers" coaxed their way into the apartment, alleging that there was a leak in the ceiling. Once inside, they pulled out guns, announced themselves as members of the Red Brigade, and forced Dozier into a box. Mrs. Dozier was bound and gagged and put in another room. The terrorists carried the box to a waiting vehicle, which drove to Padua. Mrs. Dozier managed to alert neighbors by banging on a washing machine. Two hours went by until police broke into the apartment and rescued the distraught Mrs. Dozier.⁸



(U) Dozier with Italian officer after rescue

(U) The Red Brigade had, for almost a decade, been one of the world's most active terrorist organizations. Formed in the early 1970s from a radical wing of the Italian labor movement, it operated in small urban cells under tight security, and professed Marxist ideology. After directing a number of high profile terrorist incidents, including kneecapping, kidnapping and murder, a Red Brigade cell kidnapped the Italian prime

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

minister, Aldo Moro. He was murdered after being held three months.⁹ Beside the murder of a prime minister, Dozier was small potatoes, and his survival was seriously at issue.

~~(TS//SI)~~ Although unprepared, SIGINT was immediately brought into the picture.

~~(S//SI)~~ NSA immediately decided to do a name search [] but the current interpretation of Reagan's new executive order, 12036, prohibited searching on the name of an American citizen without his or her permission. Fortunately, Acting Attorney General Edward Schmults ruled that Dozier would have given permission if he were available, and the name search was permitted to proceed. Unfortunately, it turned up nothing.

~~(S//SI)~~ On January 19, 1982, with the kidnapping a month old, the Italians received a tip indicating that the Red Brigade might be communicating on the citizens band frequencies. Just three days later USA-62 in San Vito, a site without qualified Italian linguists, intercepted a voice conversation in the citizens band indicating that Dozier might already have been killed. This generated a series of Critics containing more details concerning the supposed elimination of the general. Just two days later, however, another intercept seemed to indicate that he was alive after all. NSA sent one of its most qualified Italian linguists to the site. He contended that the intercepted tapes, of very bad quality, did not represent Red Brigade communications at all. (However, this conclusion remains in contention to this day.)

~~(TS//SI)~~ Direction finding was critical, and NSA offered the use of GUARDRAIL V from Germany, as well as Army heliborne DF and a Chevrolet Trailblazer with DF equipment installed. The Italians rejected the Trailblazer, partly because they felt they would not be in complete control of the operation. They did, however, approve the GUARDRAIL V and the helicopter efforts, but the flights did not come in time for the rescue of Dozier. They were employed after the rescue to search for and locate Red Brigade communications. The airborne SIGINT effort intercepted a welter of possible Red Brigade communications, all indicating considerable confusion following the successful rescue. Italian police raided several Brigade hideouts and intercepted arms shipments to the Venice vicinity. (The cell in Venice was responsible for the kidnapping.) But they never confirmed for NSA whether or not U.S. efforts contributed to the rolling up of Red Brigade assets.¹⁰

(U) Dozier was rescued based on Italian HUMINT. Italian police captured and interrogated various Red Brigade members, and learned of the hideout where he was being kept. In the early morning hours of January 28, police burst into the apartment and captured five Brigade members, while rescuing Dozier, who was secured in a back bedroom.¹¹

~~(S//SI)~~ The Dozier rescue was, to say the least, a learning experience for NSA. Large fixed sites contributed, but the prospects for the future rested on mobile assets like GUARDRAIL. It was clear that NSA needed a better coordinating mechanism, more

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

resources, and better databases. Most important, such an effort could not proceed in isolation, but would rely on a heavy infusion of HUMINT, from both U.S. and Third Party sources. From a broader perspective, it highlighted the lack of a counterterrorism structure in the U.S. intelligence community, and resulted in the establishing of an interagency task force on terrorism which still operates as the forty-six-member Interagency Intelligence Committee on Terrorism. It also highlighted the difficulties of operating without good language capability.¹²

~~(S//SI)~~ The Dozier kidnapping led directly to the establishment of G1 in the spring of 1982. G1 consolidated the effort, established a focal point, and created an organization responsible for budgeting for counterterrorism. G1 brought new methods to the game, including such unconventional options as following airline manifests and bank accounts. It was the beginning of what would become a highly successful new mission for the cryptologic community.¹³

(U) The Sabana Seca Incident

(U) Cryptologists were brought face to face with terrorism on December 3, 1979. A bus transporting Navy cryptologists from the support base to the operations site for USN-19 at Sabana Seca, Puerto Rico, was proceeding down the road when a truck pulled in front of it. The truck drove ahead for about 3/4 mile, where it unexpectedly stopped. Off to the side of the road a white van was parked. As soon as the bus stopped behind the truck, firing erupted from the van. Of the fourteen people aboard the bus, two were killed, and eight were wounded. The truck and the van drove off, leaving the shattered bus with its ravaged occupants.

~~(S)~~ No one was ever arrested for the shootings, which were apparently the work of Puerto Rican nationalists opposed to U.S. sovereignty over the island.¹⁴ It was the only such incident involving cryptologists during the Cold War.

(U) Airline Hijackings

~~(S//SI)~~ Terrorism in the 1980s was dominated by a series of high-profile hijackings. Most, though not all, were orchestrated by Middle Eastern political organizations like Amal and Hezbollah. President Reagan, like President Carter before him, was seized by these incidents, and each in turn claimed the total attention of his NSC staff until it was resolved. Likewise, most of the intelligence available to the NSC during the course of hijacking operations came from NSA. Using its capability to collect air control communications so effectively employed during the drama over the release of the diplomatic hostages in Iran, NSA became the source of most of the available information about an on-going event.

(U) Typical of these support operations was the reporting series on TWA 847. Hijacked by Islamic terrorists on a flight from Athens to Rome on June 14, 1985, the flight was diverted to Beirut. Over the ensuing three days it played hopscotch across the

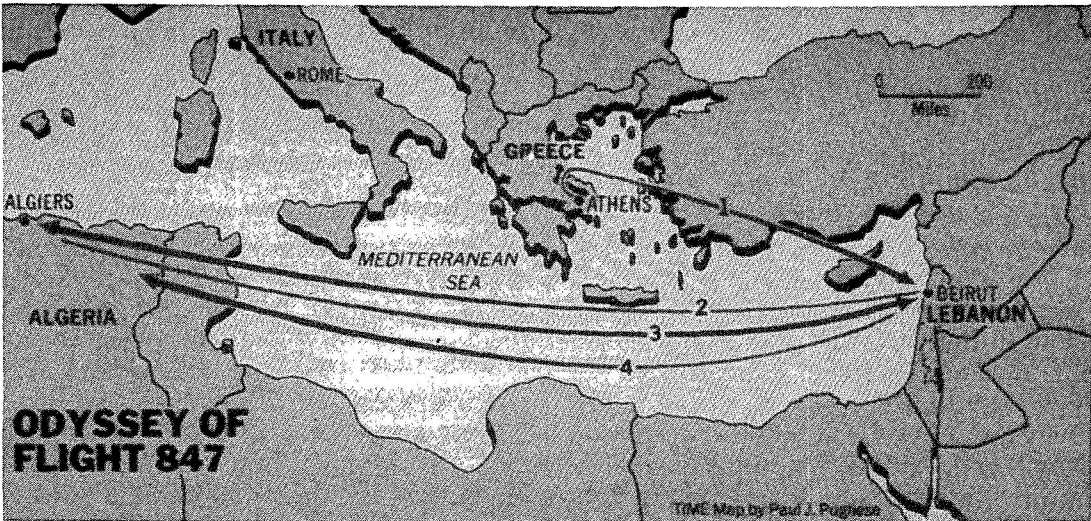
~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~



(U) Trans World Airlines 847

Mediterranean between Algiers and Beirut. At one of its Beirut stops the terrorists executed an American naval enlisted man, Robert Stethem, and threw his body on the tarmac beside the plane. They threatened to execute many more. On June 16 the plane departed Algiers for the last time and came to rest in Beirut. There ensued two weeks of diplomatic negotiations among the United States, Israel, Syria and the Amal organization under Nabih Barri. Ultimately, Syrian president Hafez al-Assad of Syria obtained the release of the American hostages from TWA 847, in return for the Israeli release of several



(U) The flight of TWA 847

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

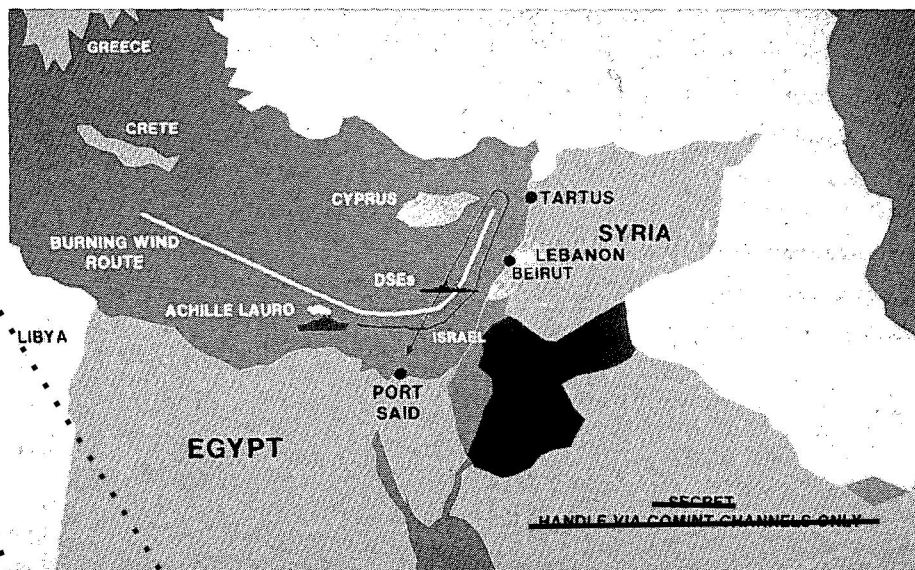
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

hundred Lebanese Shiite captives being held illegally in Israeli jails after an Israeli army raid into southern Lebanon. The hijackers never succeeded in their primary aim – the release of seventeen terrorists being held in Kuwaiti jails.

~~(S//SI-SPOKE)~~ NSA reporting came primarily from intercept of HF international communications between air traffic controllers and the pilot of the hijacked aircraft as he described the demands of the hijackers and the conditions on board the aircraft. Some of the product reports were released within ten minutes of intercept at overseas field sites, in an unexcelled display of SIGINT system integration. Knowing exactly what was happening on board the aircraft gave the NSC and the State Department considerable confidence in their actions to resolve the crisis. Moreover, during the negotiations phase NSA intercepted telephone calls between [] thus giving the State Department a better understanding of the negotiating posture of these reluctant partners. In this and other such hijacking dramas, NSA made a substantial contribution to national security policy.¹⁵

(U) The Achille Lauro Affair

~~(S//SI)~~ On October 7, 1985, NSOC learned from State Department sources that an Italian cruise ship sailing in the eastern Mediterranean had been captured, apparently by Palestinian terrorists. The ship was now drifting somewhere in the Mediterranean, its fate unknown.¹⁶ The incident would become a spectacular SIGINT success story.



~~(S//SI)~~ Path of the Achille Lauro

~~(S//SI-SPOKE)~~ NSOC tasked everything at its disposal – fixed sites, airborne platforms, [] remoted intercept, overhead satellites. It paid off; the next morning, [] flying an RC-135 [] issued a Critic based on voice communications

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

from the captain of the ship to a shore station saying that he had been hijacked and one passenger had been killed.¹⁷

~~(S//SI-SPOKE)~~ As the ship drifted in the Mediterranean, NSA continued to follow its communications. [redacted] intercepted voice communications between the terrorists on board and Abu Abbas, leader of a pro-Arafat wing of the Palestinian Liberation Front, giving them directions. NSA lost contact with the vessel for several hours, but picked it up again, and followed it as it meandered toward the Egyptian coast. It was good information, but SIGINT could not provide a location, and a rescue operation could not be mounted. Secretary of State George Shultz later complained about the lack of the ability of intelligence to locate the vessel on the high seas.¹⁸

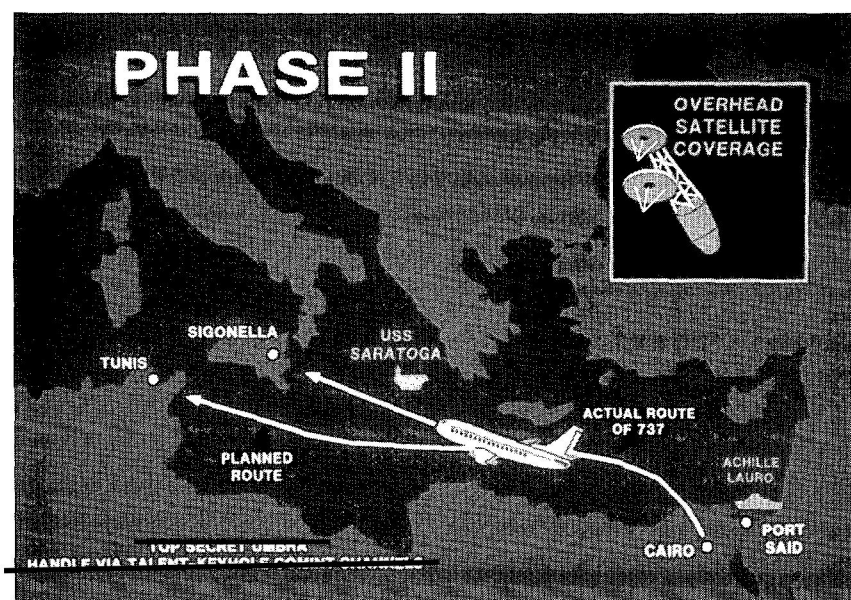
~~(TS//SI-UMBRA)~~ The Reagan administration mounted a fierce diplomatic offensive to close off neutral ports to the terrorists. It was clear from the intercepts of Abu Abbas and the terrorists on board the *Achille Lauro* that their first option, landing in Syria, had been closed off because of this. But as the ship headed for the Egyptian town of Port Said, it was also clear that the Egyptian government was not cooperating with the United States. NSA learned that the terrorists would be permitted to land, the passengers would be taken off and returned to their respective countries, and the terrorists would be given an unimpeded, if surreptitious, trip to Tunisia, home of the PLO.¹⁹



(U) Abu Abbas

~~(TS//SI-UMBRA)~~ The same source yielded impeccable information about the covert flight that would take the hijackers to Tunis. The White House was able to follow Egyptian government discussions about the disposition of the hijackers. The National Security Council staff knew the takeoff time and routing of the aircraft, and the president was informed on the night of 10 October while returning to Washington aboard Air Force One. The information was explicit and credible – it stemmed from discussions between [redacted] President Reagan discussed the options – then he authorized an operation to hijack the hijackers. An intercepting force of four Navy F-14s and supporting aircraft was flown to an aircraft carrier waiting in the Mediterranean south of Crete. The unsuspecting Egyptian commercial pilot found himself with armed company, and was forced to fly to the Navy base in Sigonella, Italy. There, the hijackers were turned over to Italian justice. Abu Abbas was among them, but the Italians spirited him out of the country, while keeping the others locked up.²⁰

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~~~(TS//SI//UMBRA//TK)~~ The hijackers are hijacked.

~~(S//SI)~~ The *Achille Lauro* affair, planned to be one of the most spectacular terrorist events ever, turned out to be the most spectacular failure. The summary execution of one of the hostages, Leon Klinghofer, was a blow to their reputation worldwide, and caused Egyptian president Mubarak to hold them at arm's length. But the operation would have been considered passably successful had not the terrorists themselves wound up in an Italian jail. The operation that put them there was planned and executed entirely on the basis of SIGINT.²¹ It put counterterrorist SIGINT on the map.

~~(S//SI)~~ From a security standpoint, however, *Achille Lauro* ended badly. Administration sources could not resist telling journalists about the details of the operation. (The source for the information, it turned out later, was Lieutenant Colonel Oliver North, the NSC's expert on counterterrorism.) On October 8, NSA learned that *CBS News* Pentagon correspondent David Martin had learned about the Burning Wind coverage of the mid-ocean hijacking, but was persuaded not to make the information public. Only four days later, however, George Wilson of the *Washington Post* disclosed the same information, negating the effort that went into keeping Martin quiet. But worse was



(U) Egyptian president Mubarak

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

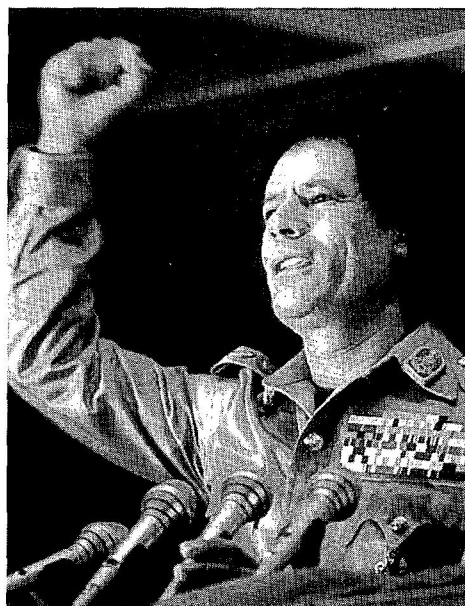
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

to come. In the October 12 edition of the *New York Post* and the October 21 issue of *Newsweek*, was the full story of the snatch operation, replete with details of the covert intercept of Mubarak's voice communications. According to the *Post*, "Between NSA and the Israelis the entire area was wired." The newspaper went on to describe in breathless voice the decision to go ahead with the aerial intercept of the Boeing 737. "The intelligence picked up by NSA's hi-tech vacuum cleaners was so accurate that at 4:00 P.M., while he was returning to the White House aboard Air Force One McFarlane [National Security Advisor Robert McFarlane] was able to give Reagan fifteen minutes' advance warning that the Egyptian plane was taking off. At that time Reagan gave the green light for the operation to begin."²²

(U) La Belle Discotheque

(U) The Reagan administration's campaign of vilification against the Soviet Union was almost matched by its campaign against the Libyan state of Muammar Gaddhafi. The war of words began almost as soon as the new president took office, and continued unabated throughout his presidency. There was a special personal animus that made the anti-Gaddhafi offensive into something resembling a fight to the death. But the struggle was unequal from the beginning.

~~(S//SI SPOKE)~~ The campaign began with psychological operations close to Libya's coast which resembled those that tormented the Soviet Union. In August of 1981, the Navy's Sixth Fleet announced a large-scale exercise in the Gulf of Sidra, a body of water which Gaddhafi regarded in the same way that the USSR regarded the Sea of Okhotsk. Libyan radio loudly declaimed the exercise and threatened interference, and Libyan planes and ships began mucking about in the exercise area. On August 19 a flight of two Libyan SU-22s attacked Navy F-14s in the Gulf - within two minutes the Navy had shot down both fighters.



(U) Muammar Gaddhafi

~~(S//SI SPOKE)~~ In December of 1984 someone in the Libyan Peoples' Bureau (what Gaddhafi called his embassy) fired at a crowd of noisy Libyan dissidents demonstrating outside their offices in St. James Park in London, killing a British policewoman.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

[redacted] had intercepted an [redacted]

[redacted] It was a tragic case of inadequate resources, though the decryption did isolate the culprits and heightened the feeling in the Reagan administration that "something" had to be done about Gaddhafi." ²⁴

~~(TS//SI//UMBRA)~~ The Reagan administration's campaign against Gaddhafi appeared to have the effect of egging him on. In late December 1985 the Abu Nidal group attacked innocent passengers in the airports of Vienna and Rome. There was substantial evidence of Libyan involvement, and the JCS began sharpening contingency plans relating to Libya. NSA expanded coverage of Libyan air, air defense and navy entities through a mix of overhead, conventional and airborne assets. ²⁵

~~(S)~~ Within the White House, a covert planning group formed to map a strategy against Libyan terrorism. Regarded as the most secret of all NSC planning, it was covered by layered codewords, the most famous of which was Veil, which journalist Bob Woodward used as the title of his 1987 exposé of William Casey and the covert actions program. The Veil group was a heavy user of SIGINT, which was the best and most timely source on Gaddhafi's activities. ²⁶

(U) In 1986, the JCS conducted another series of freedom of navigation exercises in the Gulf of Sidra, with the singularly uninspiring name of "Attain Document." Gaddhafi had proclaimed a "Line of Death" in the Gulf, and during the exercise series in March there were incidents of attempted Libyan interference. The Navy sank two Libyan vessels - presidential spokesman Larry Speakes said later, "We don't let them get that close." After a Libyan SA-5 site fired at Navy aircraft, the Sixth Fleet attacked the site, not once, but twice. ²⁷

[redacted]

~~(TS//SI)~~ During the Attain Document series, NSA mounted intensive coverage of Libyan communications. [redacted] but through a network of [redacted] sites, [redacted]

[redacted] NSA had the collection that it needed. To avoid the processing problems that had bedeviled the 1984 policewoman shooting, G6 threw everything it had into a processing and reporting operation. After the destruction of the two Libyan vessels in the Gulf, the Libyans indicated that they would retaliate. G6

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

directed the field sites to forward their Libyan traffic via immediate precedence, and speeded up processing operations at Fort Meade.²⁹

~~(TS//SI UMBRA)~~ The stage was set for three of the most significant Cold War messages ever intercepted. The first, collected by a covert site and published by NSA on March 26, indicated that the Peoples' Bureau in East Berlin would carry out an attack against Americans using Palestinians. The second, on April 4, was sent by the al-Marafiq representative in East Berlin back to Libya alerting Libyans to watch for "results tomorrow morning." The information was vague, and could not have been used to thwart an attack, but it was clear that something was about to happen.³⁰

~~(TS//SI UMBRA)~~ April 5 was Friday; the bars in West Berlin would be crowded with American servicemen. Early Saturday morning, with the bars still lively, a powerful bomb exploded at La Belle Discotheque, a late-night hang-out popular with Americans. One American soldier was killed, along with a Turkish woman, and 230 people were injured, most of them Americans. USM-5 at Teufelsberg sent out a Critic.³¹ Once again, the covert site had intercepted a Libyan message; it was forwarded to NSA for decryption.

~~(TS//SI UMBRA)~~ At NSA, a team of cryptanalysts and linguists was called in to work on the new message. Toiling through the early morning hours, they decrypted it by machine and translated it into English. The information they had was almost as explosive as the bomb itself. The al-Marafiq representative in East Berlin claimed that the operation had been successful, and boasted that Libyan involvement was undetectable. It was henceforth referred to as the "smoking gun" intercept.³²

~~(TS//SI UMBRA)~~ The resulting product report got a good bit of attention before it was transmitted. NSA already knew that the administration had threatened military retaliation if it could be proved that Libya had initiated a terrorist attack against Americans. Here was the proof. The product was released to a special distribution (which initially included only Washington area customers) just before noon on April 5.³³

~~(S)~~ John Poindexter, the national security advisor, wired the evidence of Libyan complicity to President Reagan, who was vacationing at his California ranch. Sunday morning, April 7, the president met with his top advisors in the Oval Office. Poindexter set up the agenda. On the menu was just one item – the timing of military action against Gaddhafi.³⁴

~~(S//SI)~~ The retaliation, called El Dorado Canyon, came in the form of a complex air strike launched from British bases on April 14. NSA threw every available SIGINT asset into the support operation. All SIGINT satellites were tasked, every collection site in the region participated, and virtually every airborne asset in the Mediterranean helped out. NSA collection concentrated on Libyan internal military communications, including

[REDACTED] Special analysis, processing and reporting cells were established all over the Agency.³⁵

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~



The evidence is now conclusive that the terrorist bombing of La Belle Discotheque was planned and executed under the direct orders of the Libyan regime. On March 25, more than a week before

357

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Briefing President Reagan

the attack, orders were sent from Tripoli to the Libyan People's Bureau in East Berlin to conduct a terrorist attack against Americans....On April 4, the People's Bureau alerted Tripoli that the attack would be carried out the following morning. The next day they reported back to Tripoli on the great success of their mission. Our evidence is direct, it is precise, it is irrefutable.³⁷

World War II military operations carried out on the basis of SIGINT had plausible cover. This had none, and it did not require overpowering astuteness to sniff out the origins of the information. It could only have been SIGINT.

~~(TS//SI)~~ In order to convince Western alliance leaders of the justification for the bombing, the president dispatched special emissaries to European capitals. Each was armed with a letter of introduction, explaining that the representative would share verbally the intelligence information with the head of government. The SIGINT information was thus shared at very high levels.³⁸

~~(TS//SI)~~ The first leak was not, in fact, the televised statement. An April 7 *U.S. News and World Report* article contained background information indicating that the U.S. was reading Libya's mail. (The source of this information was reputed to be the American ambassador in Bonn.) But following Reagan's press conference the news became widespread. For instance, the *Financial Times* of London published an article three days after the news conference alleging that the information came from Libyan communications between Tripoli and England, intercepted in England and broken by NSA. Leaks continued until there was no aspect of the NSA operation that had not been

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

covered in the press. On April 18, al-Marafiq posts abroad were directed by Tripoli to cease cipher communications.³⁹

~~(S//SI)~~ The NSA hierarchy was reported to have gone "ballistic" over the leaks. Coming after the *Achille Lauro*, and simultaneous with the disclosures incident to the Pelton trial (see page 413), it appeared that all the cryptologic secrets would leak in an increasing hemorrhage of sensitive information. The DDO, Dick Lord, put a lid on future reporting of terrorist-related information until a new security system could be devised. NSA officials contacted the DCI, William Casey, and even considered requesting prosecution of the press under Section 798 of Title 18.⁴⁰

~~(S//SI)~~ What resulted was a new compartmentation system, called Spectre. Originally, the Spectre compartment was to be applied to all terrorist-related product reports. Spectre material could not be sent electrically, but must be restricted to hard copy only, delivered to a specified list of Spectre-authorized individuals. But the Spectre compartment produced great unhappiness at State Department and within the NSC itself, mostly over the slowness of the system, and the inclusion of apparently nonsensitive reports in the series. NSA was forced to modify procedures and to take some types of terrorism reporting out of Spectre. The Agency permitted electrical reporting to customers outside the Washington area, where hardcopy delivery in a timely fashion was impossible. Still later, NSA set up a special facsimile circuit specifically for the transmission of Spectre reports, so that even Washington area customers would be served in a timely fashion.⁴¹

~~(TS//SI//UMBRA)~~ [REDACTED]

messages. But tensions between the U.S. and Libya continued through the Reagan administration. In late 1988 [REDACTED] missions in the Mediterranean drew increasing fighter reaction from Libya, and the Navy was placed on alert. On January 4, 1989, Libyan controllers launched MiG-23s against an RC-135, and F-14s from the USS *Kennedy* shot two of them down. The [REDACTED] operators had not noted specific hostile intent - the Libyans just got too close, again.⁴²

(U//~~FOUO~~) After the end of the Cold War, East German Stasi files came into American possession. They contained information on the La Belle incident indicating that, as NSA had suspected, the Stasi had known of, and condoned, the attack on the discotheque. The Libyans and East Germans had met on March 26, 1986, and the very next day the American State Department had issued a "blunt communique" to the East German envoy in Washington to rein in Libyan terrorists who, the State Department said, were plotting a terrorist attack in West Berlin. This convinced the East Germans that the U.S. had an agent in the planning group.⁴³

(U) The Libyan mastermind of the operation, Yasser Chraidi, returned to Lebanon after the fall of the Berlin Wall in 1989, and two years later was arrested and extradited to Germany where he was charged with a string of murders and burglaries associated with Gaddhafi's campaign against Libyan dissidents. The case against him was thrown out

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

when a key government witness recanted. German authorities held him for several weeks awaiting evidence that would tie him to the La Belle bombing. But the evidence was not forthcoming, and he was released. According to U.S. officials, there was no human source; all the evidence came from "technical intelligence," and the Germans should stop looking for a penetrator.⁴⁴



(U) Abu Nidal

~~(TS//SI//UMBRA)~~ The campaign against terrorism yielded other successes in the mid- to late 1980s. One of the most significant was against the Abu Nidal Organization (ANO), a Fatah breakaway group specializing in international murders and spectacular operations that would draw attention to the Palestinian cause. In 1985 a defector from the ANO cause gave [redacted] associated with the ANO. The number led [redacted] and NSA to a complex web of bank accounts associated with an ANO front company dealing in international arms trade. The group was headquartered in Warsaw, but it had branch offices all over Western Europe.

~~(TS//SI//UMBRA)~~ After studying the intercepted traffic for some months, NSA issued a series of reports under the Spectre rubric

which laid out the entire organization and MO. [redacted] approached State Department to issue ademarche, but at first they were rebuffed. Finally, the clearly reluctant State Department officials complied, not with any great enthusiasm. So [redacted] decided on an unorthodox approach, and published a small book called "The Abu Nidal Handbook," detailing the operations of the group. State agreed to distribute the book, and it had the desired effect. Host governments agreed to close Abu Nidal offices all over Europe – even in Warsaw and East Berlin. Abu Nidal himself turned paranoid, suspected everyone of having turned evidence against him, and his organization practically dissolved in a bloodbath of summary executions in 1987.⁴⁵

~~(S//SI)~~ SIGINT also played a significant part in the investigation of the 1988 terrorist bombing of Pan Am 103. Palestinian organizations were originally suspected, supposedly working in behalf of Iran to avenge the American downing of the IranAir Airbus flight in the Persian Gulf. But a Scotland yard investigator combing through the debris in the field outside Lockerbie, Scotland, found a chip that was subsequently traced to a Swiss firm that, upon questioning, acknowledged having sold those particular devices to Libya. Investigators then began focusing on Libya and on Malta, which was a known haven and operational base for Libyan terrorists. They got a magnetic tape containing information on all the individuals who had manifested on Pan Am 103 flying from Malta to Frankfurt.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(c)
OGA
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

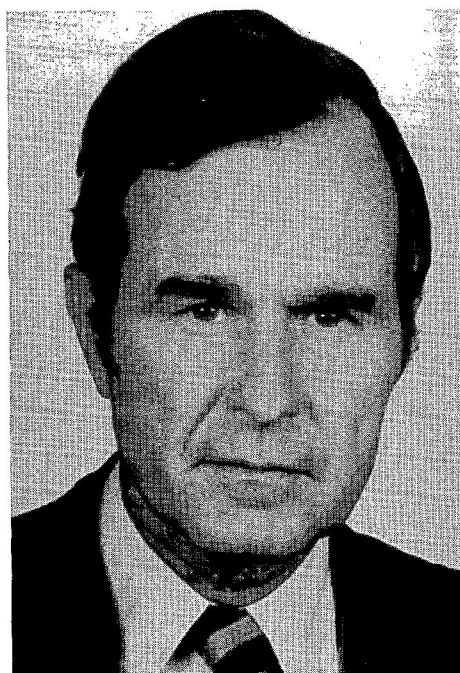
NSA went through the tape and discovered the name of a Libyan intelligence agent. He had flown from Malta to Frankfurt then flew back to Malta the day before the bombing. NSA continued to follow the movements of the Libyan intelligence officers later indicted for the attack.⁴⁶

(U) THE WAR ON DRUGS

(U) Although the federal government had always been concerned about drug trafficking, the first significant effort did not occur until 1972, with Nixon's "War on Drugs." This campaign was mostly words and was soon drowned out by the Watergate affair. President Ford created the Drug Enforcement Administration, and under Jimmy Carter the State Department got involved through the creation of the Bureau for International Narcotics Matters. But it did not receive much push until the administration of Ronald Reagan. Although the Reagan approach came to be symbolized by Nancy Reagan's "Just Say No" advice on the use of drugs, Reagan's thrust was to stop drugs before they arrived in the country. The idea was that, eventually, there would be nothing to say No to.

(U) Faced with rising complaints about the burgeoning drug trade in Florida, in 1982 Reagan created the South Florida Task Force, an unfunded consortium of federal and state agencies involved in combatting drugs and the drug trade. In order to give it prestige, Reagan named his vice president, George Bush, to head the task force.

(U) Growing out of this was the National Narcotics Border Interdiction System, or NNBIS, an attempt to combat drug smugglers at U.S. borders. Under NNBIS, the federal government organized six regional centers in New York, Chicago, Long Beach, El Paso, New Orleans and Miami. Each center was staffed by representatives from participating agencies - fourteen on the federal side, including DEA, FBI, Customs, Coast Guard, Bureau of Alcohol, Tobacco and Firearms (BATF), Immigration and Naturalization Service, and the Border Patrol. Associated with it were more than 14,000 state and local law enforcement agencies.⁴⁷



(U) George Bush

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U//~~FOUO~~) Intelligence support for the effort was critical, and NSA was called in almost immediately. In 1983 NSA sent a representative to EPIC (the El Paso Intelligence Center) in response to a specific request from the vice president's office. Later, the Agency sent representatives to both Miami and New Orleans.⁴⁸

(S//~~SI~~) When first tasked in October of 1982, NSA had no centralized counternarcotics organization. Drug information had been collected from Southeast Asia and Asia Minor as part of the foreign intelligence mission, but this was something different. The new effort soon found a home in G1, recently created to mind the terrorism problem.⁴⁹

(S//~~SI~~) G1 composed a new plan for counternarcotics, called SAINT (SIGINT Against International Narcotics Trafficking). While recognizing the existing drug monitoring efforts, SAINT focused on Latin America and the Caribbean, the current counternarcotics hot spot. NSA would beef up the existing efforts, but later and at a lower priority. The first step was to put together a collection plan, beginning with a survey of all possible drug-related communications. This would involve conventional sites in the Caribbean area (Guantanamo, Sabana Seca, Homestead, Medina and others), new and existing [redacted] sites, [redacted] and use of the Navy's Bullseye net. The survey would serve as the basis for a full-scale assault with more sites and more money, including thirty-five additional billets.⁵⁰

(S//~~SI~~) From the first, legal issues drove much of the effort. The Posse Comitatus Act prohibited defense organizations from participating in law enforcement except in certain very narrowly defined circumstances relating to the information having been collected as incidental to the foreign intelligence mission. In May of 1983 NSA, under pressure to assume a more proactive stance, requested clarification of the rules of engagement. The Department of Justice reply was not an especially useful restatement of the rule that the information could be disseminated to the Coast Guard and Customs Service as a by-product of NSA's foreign intelligence mission. But the next year the attorney general issued a new set of guidelines which loosened the rules. Under them, NSA could intercept and DF transmissions reasonably suspected to be part of international narcotics trafficking. At least one transmitter must be located outside the country, in a vessel or aircraft suspected of being engaged in moving narcotics. Once the signal was within U.S. territory or territorial waters, NSA had to break off surveillance. If the transmission was unlocated, it could be assumed that it was outside the U.S. There had to be a reasonable basis for the belief that not all communicants were Americans. NSA could provide passive support (information and equipment), but could not become involved in the actual interception and arrest of suspects.⁵¹ The rule that the effort had to relate to international narcotics trafficking kept the SIGINT system still focused on foreign, rather than domestic, intelligence.

(S//~~SI~~) NSA found narcotics-related communications almost everywhere. Ships and airplanes used a combination of HF and VHF, [redacted]. By the late 1980s some targets were beginning to use enciphered voice, but that problem was still in its infancy by the end of the decade. The Colombian drug lords began leasing [redacted] communications, and some of their telephone numbers began

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

[REDACTED]

The greatest threat was that the defense would use discovery motions to smoke out the SIGINT, but this remained more of a threat than a reality.⁵²

~~(S//SI)~~ When SIGINT support began, law enforcement agencies were enthusiastic, and all kinds of partners turned up in NSA's antechamber. One of the closest working relationships was with the Coast Guard, which actively used SIGINT for off-shore interdiction. In Washington, the Coast Guard created a joint intelligence center, with an SI-cleared operations floor and lots of SIGINT product reports. The Coast Guard center in Miami worked closely with USN-838 at Homestead, [REDACTED]

[REDACTED] This was possibly the most profitable avenue for SIGINT support, and one expert estimated in 1987 that over half the high seas interdictions off the Florida coast were based on SIGINT.⁵³

~~(S//SI)~~ Other partnerships were more difficult. The Drug Enforcement Administration had no experience with foreign intelligence organizations, working instead with the law enforcement authorities in various countries. Unlike the FBI, DEA had no experience in using SIGINT leads to help an investigation, and chafed under any restrictions regarding the use of evidence in court. If SIGINT could not be introduced at trial, many in DEA did not understand its value.⁵⁴ In the late years of the decade, relations with DEA cooled.

(U//~~FOUO~~) Once involved in counternarcotics, NSA discovered a big wide world of SIGINT efforts beyond the confines of NSCID 6. [REDACTED]

[REDACTED] and NSA representatives [REDACTED] found themselves working outside the reassuring confines of secure areas.⁵⁵

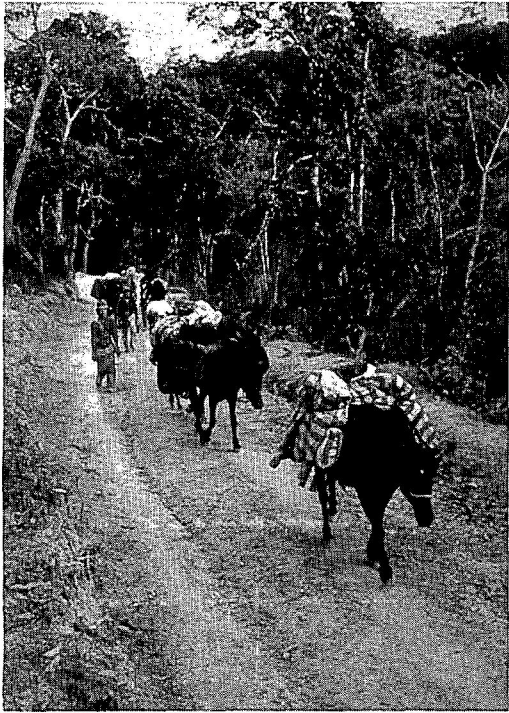
~~(S)~~ In the early years of its partnership with law enforcement, NSA began to issue SIGINT product reports under the Secret Moray flag, but eventually got away from this and into a noncodeword TACREP program, at the straight Secret level. By 1987 NSA sites were issuing about 3,000 narcotics-related reports each year. But it was still confronted with the skepticism of law enforcement officers who did not see the value of information that they could use to catch a suspect, but not prosecute him.⁵⁶

(U) The Asian drug problem, though far less visible to the administration, was of much longer standing. At least 90 percent of the world's opium came from Burma, Iran, Afghanistan and Lebanon, and the Golden Triangle (a point where the borders of Burma, Laos and Thailand meet) was the single most productive area. In Burma, the Shan United Army (SUA), a nation unto itself, managed the reduction of raw opium into # 4 heroin (a process that reduced its volume by a factor of ten) and transportation, often by pack

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

animals, over the border into Thailand for onward shipment. Owing to the complete lack of cooperation of the Burmese and Laotian governments, opium production rose dramatically in the 1970s.⁵⁷



(U) Shan United Army (SUA)
drug shipment

~~(S//SI)~~ American SIGINT did not begin targeting the Golden Triangle until the early 1970s, when the Vietnam War was winding down. The push came from the U.S. Army. In 1971 it was estimated that between ten and fifteen percent of U.S. troops in Southeast Asia were addicted. In the United States, the dramatic rise in drug addiction prompted President Nixon's War on Drugs campaign.

~~(S//SI-SPOKE)~~ In the early days of the effort, NSA stumbled on Chinese language communications associated with the Burmese drug trade.

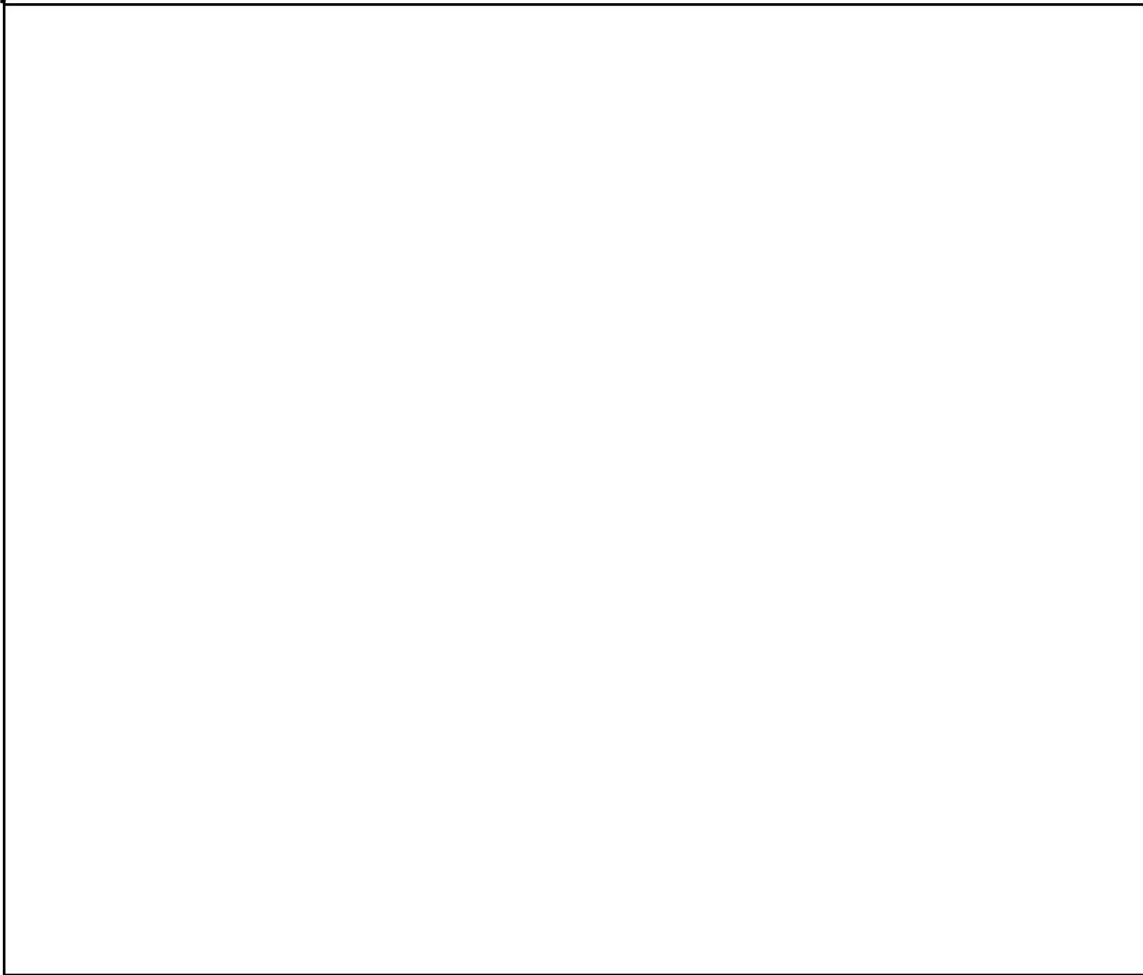
This gave the Agency a peek into the shadowy world of the competing tribal opium armies in the jungles of northern Burma and southern China, whose origins could be traced back at least as far as World War II.

OGA

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605



(U) SIGINT AND COUNTERINTELLIGENCE

~~(S//SI)~~ The counterintelligence implications of SIGINT had long been virtually ignored. The only real effort that NSA had was in the division that exploited Soviet intelligence communications – Project VENONA had resided in that office. As productive as VENONA had been, it represented a very narrow slice of the potential for counterintelligence.

(U) CIA, too, had fallen on parlous times. The counterintelligence division headed by James Angleton had acquired a lurid reputation (made famous by David Martin's book *A Wilderness of Mirrors*). CIA director William Colby had fired Angleton in 1974, and in the ensuing commotion the counterintelligence mission had been virtually shut down.⁶⁴

~~(S//SI)~~ The resurrection began in 1981 with the Casey regime at CIA. In response to increasing intelligence community calls for more emphasis, NSA in 1983 created G14, the counterintelligence division.⁶⁵

~~(TS//SI)~~ What made the difference was a completely new methodology. Adopting tactics that G1 had found successful in the counterterrorism and antinarcotics efforts, the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

new counterintelligence division began looking at plaintext [] communications. Overwhelmed by massive volumes, NSA went to the agencies that would have confidential information on foreign spies: CIA, FBI, Secret Service, and others. Since NSA was asking for the most sensitive information that those organizations possessed – actual agent [] it was a tough sell initially, and early attempts were rebuffed []. But through the mid-1980s NSA gradually negotiated a series of agreements with these agencies and began getting the information it needed. The Agency then began inputting key information into databases, and results began popping out.⁶⁶

~~(TS//SI)~~ With this new information, NSA designed several new programs to look at data that it had never been interested in before, but which was available []

[] It became possible to begin tracking the movement of hostile intelligence agents through SIGINT.⁶⁷

~~(TS//SI)~~ Product reporting was extremely limited. In 1977 NSA had established a special, hard-copy-only report series dealing with [] intelligence operatives, and this system was applied to the new G14-produced information. (Later there was a so-called []

[] The hard-copy-only rule continued to govern distribution of the information until 1987, when NSA discovered communications from an [] operation in Mexico City. This and Vienna had emerged in the 1980s as the key international cities for KGB operations. (Pelton and Walker, for instance were both summoned to Vienna for meetings; see page 412.) G14 had established agent-shadowing operations in Mexico City, and needed the [] information quickly in order to pick up KGB agents []. The hard-copy rule quickly collapsed, and G14 devised an electrical product series to get the word out to waiting customers.⁶⁸

~~(TS//SI)~~ NSA's participation in counterterrorist, counternarcotics, and counter-intelligence problems gave Agency people valuable experience in these nontraditional areas. The pessimism of the late 1970s turned into optimism within ten years. Yes, SIGINT could make a real difference, and NSA did not have to cede the field to HUMINT efforts. The spectacular successes in the *Achille Lauro* and *La Belle Discotheque* affairs, as well as NSA's contributions during terrorist hijackings, were only the most visible of its contributions. In the White House and the NSC staff, where it really counted, SIGINT had become an integral part of the national security apparatus. It was to give the cryptologists a big jump on the SIGINT problems that were to confront the nation in the post-Cold War World.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

OGA

(U) Notes

1. (U) [] "The History of SIGINT in the Central Intelligence Agency, 1947-1970," Vol III, 86, available from CIA history office.
2. (U) Director of Central Intelligence, "Report on the Intelligence Community," January 1978, 37-38, in CCH Series VI.C.1.23. David Kahn, "Cryptology Goes Public," *Foreign Affairs* (Fall, 1979), 141-59.
3. (U) [] "International Terrorism and the National Security Agency: The Evolution of a Centralized Response," 1986, 2, unpublished manuscript in CCH files.
4. (U) Ibid., 6-8, 11.
5. (U) Ibid., 9-11.
6. (U) Interview, [] by Tom Johnson, 20 February 1997, OH 5-97, NSA. [] "International Terrorism....," 6-11.
7. (U) [] "The Dozier Kidnapping: A Story of Successful SIGINT Cooperation," *Cryptologic Quarterly*, Vol 10 (Fall/Winter 1991), 1-29. [] "International Terrorism....," 13.
8. (U) [] "The Dozier Kidnapping...."
9. (U) Ibid.
10. (U) Ibid.
11. (U) Ibid. [] "International Terrorism....," Ch. III.
12. (U) [] "The Dozier Kidnapping...." Faurer interview. Interview, Francis P. Hyland, by Tom Johnson, 15 August 1997, OH 11-97, NSA.
13. (U) Hyland interview, [] "International Terrorism....," Ch IV.
14. (U) NSG file 5750/15, "NSGA Sabana Seca Shooting Incident of 3 December 1979.
15. (U) Reagan Library, NSF, in CCH Series XVI.J, "Hijack of TWA 847." [] June 1985 and follow-ups thereto, in CCH Series CII.D. George P. Shultz, *Turmoil and Triumph: My Years as Secretary of State* (New York: Charles Scribner's Sons, 1993), 653-664.
16. (U) Interview [] by Tom Johnson and Robert Farley, 20 February 1987, OH 7-87, NSA.
17. (U) [] interview. Reagan Library, NSF, in CCH Series XVI.J., "Achille Lauro."
18. (U) Reagan Library, NSF, "Achille Lauro." CCH Series VIII.45. Shultz's frustration appeared in his autobiographical account of his years as secretary of state, *Turmoil and Triumph....*, 673.
19. (U) Henry Millington, untitled manuscript on the history [] in CCH files. CCH Series VIII.45.
20. (U) CCH Series VIII.45.
21. (U) Memo from LTG Odom to William Casey, 12 May 1987, in CCH Series VIII.45.
22. (U) Memo from LTG Odom to George Shultz, undated, in CCH Series VIII.45.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

23. (U) CCH Series VIII.42. Andrew, *For the President's Eyes Only...*, 464. According to journalist Bob Woodward, this threat came from both HUMINT and SIGINT sources, and was considered highly credible by Casey. See Woodward, *Veil: The Secret Wars of the CIA 1981-1987* (New York: Simon and Schuster, 1987), 167.

24. (U) Interview, [] by Tom Johnson and [] 2 January 1996, OH 1-96, NSA.

25. (U) Ibid.

26. (U) Reagan Library, NSF, in CCH Series XVI.J., "Libyan Terrorism." Woodward, *Veil*....

27. (U) [] interview. CCH Series VIII.51.1.; VIII.40, *New York Times* article 26 March 1986.

28. (U) [] interview.

29. (U) CCH Series VIII.51.1.

30. (U) [] in CCH Series XII.D.

31. (U) CCH Series VIII.51.1.

32. (U) [] in CCH Series XII.D. [] interview.

33. (U) [] interview.

34. (U) Reagan Library, NSF, in CCH Series XVI.J., "Libyan Terrorism."

35. (U) NSOC logs available in CCH Series XII.D. CCH Series VIII.51.1.

36. (U) CCH Series VIII.51.1.

37. (U) *New York Times*, April 15, 1986, in CCH Series VIII.51.1.

38. (U) Reagan Library, NSF, in CCH Series XVI.J., "Libyan Terrorism."

39. (U) CCH Series VIII.51.1. Deputy Director's files, 96026, Box 1, "Iran Situation - 1986." Interview, [] by Tom Johnson, 11 July 1997. El Dorado chronology in CCH Series XII.D., "La Belle/El Dorado."

40. (U) CCH Series VIII.51.1.

41. (U) [] interview. Reagan Library, NSF, in CCH Series XVI.J., "Libyan Terrorism."

42. (U) CCH Series VIII.42, VIII.51.1.

43. (U) *Washington Post*, August 2, 1994, in CCH Series VIII.51.1.

44. (U) Ibid.

45. (U) [] in CCH Series VIII.D. Hyland interview. Duane R. Clarridge (with Digby Diehl), *A Spy for All Seasons: My Life in the CIA* (New York: Charles Scribner's Sons, 1997), 332-33.

46. (U) [] interview. Hyland interview.

47. (U) CCH Series VII.75.

48. (U) Interview, [] by Robert Farley and Tom Johnson, 2 April 1987, OH 10-87, NSA.

49. (U) [] interview. CCH Series VII.75.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

50. (U) CCH Series VII.75. [] article in *Cryptolog* (August-September 1986), 1.

51. (U) CCH Series VII.75. Osmundson article. [] interview.

52. (U) [] interview. Interview, [] by Tom Johnson, 10 September 1997.

53. (U) Ibid.

54. (U) Ibid.

55. (U) [] interview.

56. (U) Ibid.

57. (S//SI) NSA, Foreign Relations Directorate, CDO [] files.

58. (U) Ibid.

59. (U) Ibid.

60. (S//SI) CDO [] files, "Expansion of U.S. [] SIGINT Arrangements, 1984."

61. (S//SI) CDO [] SIGINT Effort Against Golden Triangle." Interview, [] by Tom Johnson, 17 December 1996.

62. (U) Ibid.

63. (U) [] interview.

64. (U) Interview [] and [] by Tom Johnson, 25 September 1997.

65. (U) Statement by [] to SSCI, 13 November 1985, in CCH Series XII.D., "C/I file." "Reasons for the Creation of G14," in CCH Series XII.D.

66. (U) [] interview. Reagan Library, NSF, in CCH Series XVI.J., "Counter-Intelligence."

67. (U) Ibid.

68. (U) [] interview. Memo from [] 17 August 1987, and Casey testimony before SSCI, in CCH Series XII.D., "C/I File."

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

(U) Chapter 24

Military Crises and SIGINT Support during the Reagan Administration

~~(TS//SI-UMBRA)~~ The effects of Vietnam lingered on in NSA's relationship with military commanders. Through the late 1970s the JCS and NSA continued to squabble over the ownership and employment of SIGINT assets, and a new JCS directive, "Concept of SIGINT Support to Military Commanders," issued in 1982, failed to completely set things to rest. Within NSA, however, there were new efforts to satisfy requests for SIGINT support throughout the period. One of the key issues, which was rapidly being resolved by 1980, was that of making available information [] through rapid sanitized reporting.

(U//~~FOUO~~) General Faurer probably struck the best balance between strategic SIGINT management and military support mechanisms. It was paradoxical, then, that the biggest disaster in the military support arena occurred during his administration. It was the invasion of Grenada.

EO 1.4.(c)
 PL 86-36/50 USC 3605

(U) URGENT FURY

~~(S//SI-SPOKE)~~ Grenada, a microscopic speck in the far eastern Caribbean Sea, had virtually no name recognition for Americans before October of 1983. A British colony since 1763, it had gained improbable autonomy in 1967 and complete independence seven years later. Widespread dissatisfaction with its prime minister led to a coup and a new leader, Maurice Bishop, a charismatic Marxist. Bishop appeared to fall under the influence of Fidel Castro's Cuba. Cubans began showing up in waves to "assist" the Marxist regime, and the government began construction of a 9,000-foot runway near the capital which, intelligence specialists noted, would be ideal for Soviet Bloc military aircraft. Then, just when the U.S. intelligence community was becoming concerned, the Bishop government was supplanted on October 13 by a more radical movement under the finance minister, Bernard Coard. Six days later Bishop and three other cabinet ministers were executed under the direction of the army commander, Hudson Austin. NSA had noted a surge in Cuban [] communications on October 12, the day before the Coard coup.¹

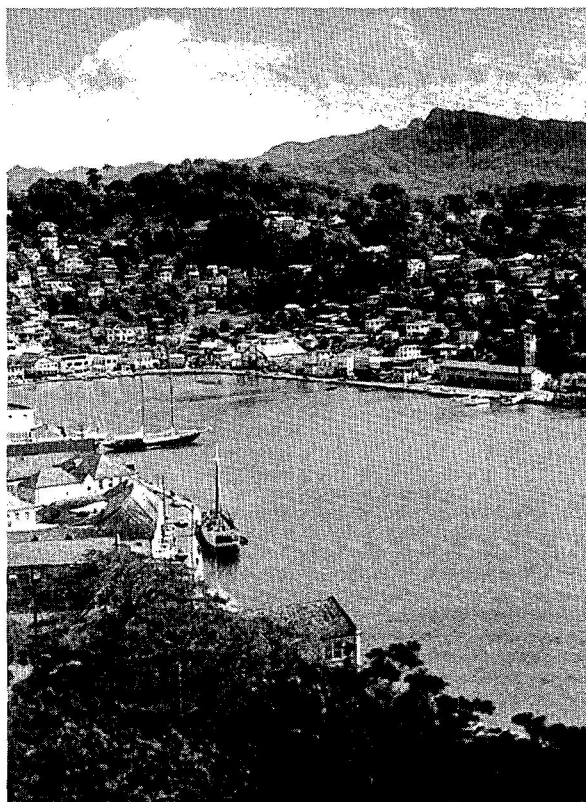
(U) Amid the civil disturbances that spread throughout the island during the coup, the Reagan administration became concerned about the fate of approximately 1,000 American and other foreign nationals, and began considering a rescue mission. But the postulated influence of Cubans in the situation undoubtedly weighed more heavily on their minds than the fate of innocents. On October 14 the JCS was told to whip up an invasion plan in very short order. General Vessey, the chairman of the Joint Chiefs of Staff, requested an implementation date of 25 October, less than two weeks away.²

~~TOP SECRET//COMINT-UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Owing to an extremely compressed time schedule, the plan was not a model of coordination. Vessey decided at the outset to exclude a number of peripheral organizations, including the Strategic Air Command, Defense Management Agency, NSA, and four parts of the JCS staff, J4, J5, the Deputy Directorate for Political-Military Affairs, and the Public Affairs Office. Vessey chose to rely entirely on DIA for intelligence. This was done partly for secrecy, partly because of the short time schedule.³

(S//SI) The JCS decision to exclude NSA and the Public Affairs Office turned into a major fiasco. The exclusion of NSA had been tried before, and it usually worked badly because NSA would discover the operation through SIGINT monitoring and would confront the Pentagon with the evidence. (The planning for the Iranian hostage rescue was a case in point; see page 392.) But in the case of Grenada NSA had made no such discovery when its representative to the Pentagon heard on October 20 about a message relating to a JCS-directed evacuation of Americans from the island. NCR Defense tried to get a copy of the message but was rebuffed. General Faurer then tried and was also turned away. But the very next day, only four days before the execution of the plan, NSA began receiving requests for expanded SIGINT tasking, and on October 22 the Agency got a copy of the Elk Hunter (JCS codeword for a compartmented military operation) message. This left three days for the planning of SIGINT support.⁴



(U) St. George's, Grenada

(TS//SI//TK) NSA tasking against Grenada had been virtually nil, and with only three days to get ready, it did not improve much. The Agency diverted airborne collectors, including [redacted] RC-135s, U-2s and Navy aircraft, to the Caribbean, but the extremely short notice caused a cascade effect on worldwide ACRP resources, and confusion over what the various collectors were to do. Two overhead COMINT collectors [redacted] were diverted, but they duplicated each other's collection. Two overhead ELINT collectors [redacted] obtained nothing useful. Two Army DSUs participated, but one deployed on such short notice that it did not have secure communications with anyone. In fact, initially there were no secure communications to provide any sort of SIGINT support to anyone, communications having been one of those forgotten elements of

PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

the Urgent Fury plan. No one had time to get Spanish linguists to the field, so the Navy direct support units tasked to accompany the fleet could listen, but could not make sense of anything. NSA had no technical database on Grenada and was given no time to develop one. It was a fiasco all around.⁵

~~(TS//SI-UMBRA)~~ The SIGINT system produced more than 500 reports that related in some way to the Grenada situation, [REDACTED] communications. Cuban military communications produced some limited information, but no Grenadian military communications were ever isolated, and NSA produced nothing of value to the military commanders in charge of the operation. It is hard to know if that might have changed had NSA had more time to prepare – perhaps there was just no Grenadian military target to exploit. The Cubans were in charge, as the SIGINT clearly showed.⁶

(U) The operation succeeded, in the sense that the JCS got 8,000 U.S. troops onto the island, rescued nearly 600 Americans and 120 foreign nationals trapped by the political chaos, restored popular government, and eliminated the potential threat to U.S. lines of communications in the Caribbean. All this was accomplished with only nineteen Americans killed and 116 wounded. The main antagonists turned out to be the Cuban soldiers on Grenada, who had established a much more secure foothold than American intelligence had suspected.⁷

(U) But it was recognized by everyone involved as a “learning experience” for a military machine gone rusty since Vietnam. The post-operation critiques named intelligence as one of the areas of failure, but did not come to the obvious conclusion that intelligence was hamstrung by the JCS refusal to involve any agency but DIA in the preparation. It also identified communications as an abysmal failure. In their haste, units deployed without compatible CEOI (communications equipment operating instructions). Secure voice equipments (i.e., Vinson-equipped radios) supplied by NSA could not talk to each other because they did not have compatible key. On several occasions Army units on the ground could not call the Navy vessels anchored just offshore for air and artillery support, and twice the Navy began bombing Army units, but the Army could not reach the Navy to tell them to stop firing. In one well-publicized incident, an officer of the 82nd Airborne Division had to use a pay phone on the island to call Fort Bragg to ask authorities there to call the Navy.⁸

(U//~~FOUO~~) After the invasion a dispute erupted between NSA and the Pentagon about the exclusion from planning. This resulted in a commitment by the director of DIA, Lieutenant General Williams, to routinely involve NSA in the planning, but this commitment lasted for only a few days – NSA was not even invited to the JCS critique sessions.⁹ In reviewing the situation, General Faurer blamed the top man:

So General Vessey undoubtedly had his reasons and I applaud them for everybody but us. I recognize the advantage of secrecy in what he did. I also recognize the difficulty of having secrecy in our government, but I have no sympathy for secrecy being used as an excuse for not finding a way to get NSA involved....¹⁰

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) THE FALKLANDS WAR - A SUCCESS STORY

~~TS//SI~~ It proved easier to work with the British than with the Americans. The British war with Argentina over the Falkland Islands, coming a year earlier than the American invasion of Grenada, demonstrated the effectiveness of SIGINT support to military operations. Unfortunately, they were not American military operations.¹¹

(U) It would be hard to imagine a less likely source of conflict. The Falklands group included several widely scattered islands in the South Atlantic administered by the British government, namely, the Falklands themselves, South Georgia, and the South Sandwich Islands. On the entire estate of 4,600 square miles there was scarcely a tree. Rain or snow fell approximately 250 days a year, and the mean average temperature was 42 degrees Fahrenheit. The population of 1,800 miserable souls was all British. The Union Jack flew over the capital of Stanley, on East Falkland Island.

(U) The dispute, then, was not over resources or strategic significance. It was all about sovereignty. Argentina's original claim was based on the 1493 Treaty of Tordesillas, by which the pope divided the New World between Spain and Portugal, allocating all discoveries west of a certain latitude to Spain. But Spain's claim to the islands of the South Atlantic was highly theoretical, since they had not yet been discovered. The British claim had a somewhat more practical foundation, and was based on an actual discovery of the Falklands in 1592.

(U) Both Great Britain and Argentina (which, upon becoming independent in 1814, had assumed all of Spain's claims in the New World) established evanescent settlements on the barren islands, but finally, in 1833, the British landed a batch of colonists who stayed on, and thus had the claim of practicality. Argentina's claim remained theoretical.

(U) Argentina had laid desultory plans to enforce its claim beginning in 1976. A year later the government hatched a plan to land a military contingent on South Georgia Island, and to use this as a pretext for war, should the British take action. Meanwhile, they actually did land a small group on the island of Southern Thule in the South Sandwich Islands, the most remote of all the disputed territories. The British protested, but the Argentines refused to budge.

(U) In December of 1981, General Leopoldo Galtieri took over in one of those all-too-frequent military coups d'état. Galtieri inherited a nation in a parlous state. Argentina's international debt was approaching \$35 billion, and annual inflation was running at 150 percent. The military junta considered its options, and the best one appeared to be a military adventure that would distract the populace from its troubled financial situation. The Falklands seemed to fit the bill nicely.

(U) The junta decided to invade. They already had an unauthorized military contingent in the South Sandwich Islands, so they employed a similar tactic of establishing an unopposed outpost. They used a Buenos Aires scrap dealer named Constantino Davidov as their stalking horse. On March 18, 1982, an Argentine military

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

vessel deposited Davidov and a crew of military people on South Georgia Islands under the cover of removing an unused whaling station.

~~(S//SI)~~ Meanwhile, NSA SIGINT had tracked the increasing Argentinian intransigence through the winter and early spring. A series of NSA reports in late March clearly outlined the Davidov scam, and showed that among Davidov's workers were military personnel. [REDACTED]

(U) The Thatcher government responded by ordering the HMS *Endurance*, anchored at Stanley, to South Georgia. But when SIGINT showed the Argentines responding in kind by sending a naval task force to the area, the British realized that they were outgunned, at least temporarily, in the South Atlantic and, resorting to diplomacy, asked President Reagan to intervene with the Argentines.

(U) But Galtieri wanted war not negotiations, and he announced publicly on April 2 that a military invasion was in progress. A SIGINT warning had been passed previously to Governor Hunt at Stanley, but with only a small force of Royal Marines, he could do little. Firing broke out as the Argentine force landed, but it was mainly for effect - Thatcher was determined to demonstrate that the Falklands had been taken by force. On the same day that Stanley fell, an Argentine task force overwhelmed the small marine detachment on South Georgia. The Falkland territories were in Argentine hands.



(U) British prime minister
Margaret Thatcher

(U) Diplomatically, Argentina was counting on American support. The Carter administration had held Argentina at arm's length because of its abysmal human rights record, but relations had warmed under Reagan, partly because Argentina was willing to assist the Contra forces in Nicaragua (see page 387). The junta assumed that Reagan would come down on their side in the UN, which increased their intransigence.

~~(S)~~ An acrimonious debate ensued within the administration over what posture to adopt. Former DIRNSA Bobby Inman, now the deputy DCI, spoke strongly in favor of the British connection, basing much of his argument on the close intelligence relationship between NSA and GCHQ, and this appears to have played an important role in convincing Reagan that he had to support Thatcher and the British. The U.S. voted in the Security

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Council to demand that Argentine forces be withdrawn, a reversal which practically left the junta breathless. This was followed, at the end of April, by an official abandonment of neutrality. Reagan offered the British a full range of security and intelligence assistance short of direct military involvement.¹²

(S//SI) The Reagan administration may have tried to be neutral early on, but NSA never was. Although casting a watchful eye toward the State Department for "further guidance," the Agency kept the SIGINT exchange well oiled. Like the 1956 Suez crisis in reverse, relations continued unabated and unaffected by official American neutrality. In fact, [REDACTED]

EO 1.4.(b)

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

[REDACTED]

[REDACTED]

(U) The Thatcher government assembled two naval task groups for the long trek to the South Atlantic. One, a surface task group, consisted of naval assets from the Gibraltar area. The other, an assault force to retake the islands, was headed by the ASW carrier *Invincible* and the ASC/commando carrier *Hermes*. The two groups rendezvoused at Ascension at mid-month and headed south. Meanwhile, both nations declared maritime exclusion zones around the Falklands. The task force consisted of over 100 ships - Thatcher was not going to let her reputation for bellicosity be besmirched by a third-rate naval power.

[REDACTED]

~~(S//SI SPOKE)~~ The Argentines had initially decided on a defensive strategy, figuring that the daunting logistics problems would cause the British to give up the job. But the retaking of South Georgia forced Galtieri's hand, and he turned to an offensive mode. The Argentine navy divided its forces into three groups, two of which figured in the subsequent actions. The flagship, the aircraft carrier *Veinticinco de Mayo*, and accompanying destroyers steamed north, while a task force under the heavy cruiser *Belgrano* went south. They were to initiate simultaneous attacks on the British fleet on May 1, in a pincher-type strategy. But Admiral Allara, aboard the flagship concluded that his force had been spotted by British Harriers and, owing also to unfavorable weather, decided to abort his attack. The entire plan was exposed in SIGINT, as was the Allara decision [REDACTED]

[REDACTED]

~~(S//SI SPOKE)~~ The *Belgrano* was a ponderous though heavily armed cruiser which had been launched in 1935 and had been in Pearl Harbor on December 7, 1941. The Argentines had purchased it from the U.S. and had modernized it with state-of-the-art

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

missiles, including the French Exocet. Its World War II-style armament made it almost invulnerable to attack except by torpedoes. Though technically outside the maritime exclusion zone, it was clearly headed for combat, and the British pounced, sinking it with a spread of three torpedoes. Of the 1,042 crewmembers, only 674 survived, and the Argentine government cried foul because it was outside the war zone.

~~(S//SI SPOKE)~~ Following the sinking of the *Belgrano*, the Argentine navy headed back to port and never again mounted a threat to the British recapture operations. But the Argentine air force was not so timid. Launching from mainland bases, they wreaked havoc on the British force, sinking two vessels and damaging another with their small store of Exocet missiles, and sinking three combatants and severely damaging another eleven with conventional bombs when they ran out of Exocets. In contrast to the navy, their pilots flew with skill and heroism, some ditching in the ocean following bomb runs because they could not make it back to base.



(U) British marines landing in the Falkland Islands

(U) Meanwhile, the British fleet landed a force of marines at San Carlos, on East Falkland Island. With air and naval support, they marched toward Stanley, rolling up isolated Argentine garrisons as they went. The Argentines did not have a good enough

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

intelligence system to predict the landing spot and, once confronted with British marines, were too fragmented to offer much resistance. Stanley fell on June 14.

[REDACTED]

OGA

(U) NSA-GCHQ cooperation was a model of allied intelligence interworking. British historian Christopher Andrew, commenting on U.S.-British cooperation, stated that:

The SIGINT attack on Argentinian communications, which yielded the best intelligence of the Falklands War, was conducted virtually as a combined operation by GCHQ...and NSA.¹³

[REDACTED]

EO 1.4.(b)

(U) Once again, SIGINT became the victim of its own success. Leaks appeared soon after the war concluded, revealing the extent of U.S.-British SIGINT cooperation, the effectiveness of ELINT satellites, and the successful exploitation of Argentine communications. After the war the British government commissioned an investigative review to determine if the Thatcher government was negligent in not recognizing at an earlier date the Argentine intention to invade the islands. Published in 1983 as the unclassified *Franks Report*, it detailed a number of intelligence items which exculpated the government. Enterprising reporters swiftly tied the revelations to SIGINT sources. Subsequently, several full-length books laid bare the successes of SIGINT.

(U) JUST CAUSE

~~(S//SI)~~ The American military invasion of Panama in 1989 was as smooth as Urgent Fury had been rocky. The crisis in American-Panamanian relations had been in slow-motion evolution for several years, and this allowed the JCS to do long-range planning. Many of the units involved in Grenada also participated in Just Cause and learned from

the earlier experience. NSA was involved from the first, and there was to be no repeat of the Urgent Fury fiasco.

(U) Following his successful Panama Canal Treaty negotiations, Panamanian strongman Omar Torrijos enjoyed almost messianic popularity in his home country. But Torrijos was killed in a plane crash in 1981, and the country was temporarily rudderless. This did not last long, however. A new strongman, Manuel Noriega, soon grabbed the tiller.¹⁴

(U) Noriega had joined the Torrijos entourage soon after the ousting of the Arias government in 1968. His specialty was intelligence, and he worked closely with American military intelligence people over the years, attending special training at Fort Bragg in 1967. When Torrijos died, Noriega emerged as one of three powerful army officers heading the Guardia Nacional. But Noriega was the smartest of the three, and soon eased the other two into early retirement. He gained control of the Guardia and, through a succession of figurehead presidents, the governmental machinery.¹⁵



(U) Manuel Noriega

(U) His relationships with the U.S. were convoluted. Of all the Guardia figures, U.S. intelligence regarded him as the least appetizing, and the State Department viewed his rise as a scarcely mitigated disaster. But he proved a useful partner in many respects, and was on the CIA payroll for years. U.S. military authorities at SOUTHCOM were forced to work closely with him, but they did not enjoy the experience. His sexual escapades were legendary, and it was rumored that he was involved with drug trafficking.

(U) Noriega's reputation, already vile among knowledgeable Americans, took a turn for the worse when he "stole" the Panamanian elections in 1984. With his own man in the presidency, the way appeared clear for him, but the next year a Noriega opponent, Dr. Hugo Spadafora, was brutally murdered, and it was widely rumored that Noriega had ordered the execution because Spadafora had exposed Noriega's drug dealings. In the midst of the Spadafora crisis, Noriega replaced the mostly compliant president, Nicolas Ardito Barletta, with an even more compliant operative, Arturo Delvalle. Alarmed, the State Department sent its Latin American troubleshooter, Elliott Abrams, with National Security Advisor John Poindexter, to warn Noriega to back off. The warning had little

effect, partly because Noriega was deeply involved in supporting the Reagan administration's undeclared war against the Sandinistas, and thus considered himself invulnerable.¹⁶

(U) With the onset of the Iran-Contra scandal in 1986, Noriega's usefulness came to an end, and the Reagan administration began exerting considerable pressure on him to reform. In June of that year, journalist Seymour Hersh published a *New York Times* article exposing Noriega's drug trafficking, and Senator Jesse Helms opened a Senate investigation into the matter. In February of 1988, two Florida grand juries simultaneously indicted him for drug trafficking, and he became a fugitive from the American judicial system. While all this was going on, Panamanians were rioting in the streets, and the Guardia, which had been renamed the Panamanian Defense Force (PDF) by Noriega, initiated brutal repression. The economy was in collapse, and under intense pressure, Noriega agreed to "democratic" elections for May of 1989. Although the elections occurred as scheduled, the opposition appeared headed for victory. Noriega then annulled the elections and appointed his own man.¹⁷

~~(S//SI)~~ JCS planning for intervention in Panama had begun in 1988, following the Florida indictments, in an operation code-named Blue Spoon. The operation envisioned a quick military strike composed of SOUTHCOM troops on the ground, considerably augmented by airborne troops from Fort Bragg. NSA was involved in planning SIGINT support for Blue Spoon from the beginning. Much of the intelligence support for Blue Spoon came from SIGINT, and, upon activation of the plan, it was envisioned that much of the operational information would come from the intercept of Panamanian military communications.¹⁸

~~(S//SI)~~ The Panamanian problem was worked in G2 as an adjunct of a much larger effort against Nicaragua and El Salvador. As Blue Spoon planning proceeded, G2 began switching resources to the Panama effort in G223. It was not that hard to do. NSA had already assembled the resources for the Nicaraguan (Sandinista) and Salvadoran problems, and Panama was, at least initially, only a minor diversion. The CAST (Central American Support Team), the communications and direct support hub for the Central America, refocused to Panama. In addition, G22 added a small Special Collection Management Operations and Intelligence Cell, referred to simply as "the cell."

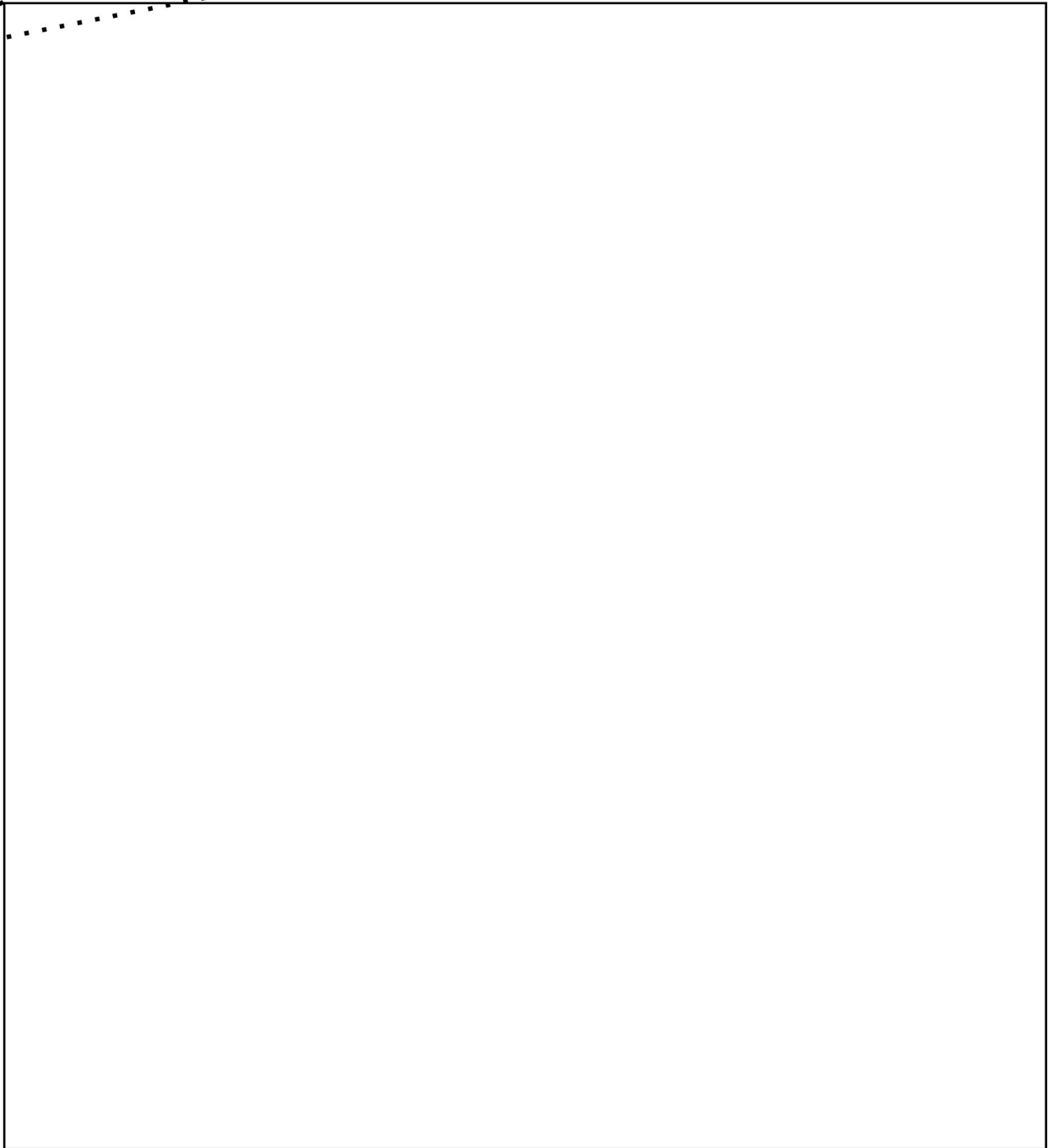


~~(S//SI)~~ Following the Florida indictments in February of 1988, NSA obtained a waiver [redacted] that [redacted] permitted the entire Central American SIGINT system to turn toward Panama. And a

EO 1.4.(c)
PL 86-36/50 USC 3605

considerable system it was. [] two intercept sites, Army and Navy, which copied Panamanian internal military communications. The Air Force flew RC-130

EO 1.4.(c)
PL 86-36/50 USC 3605



~~(S//SI)~~ SIGINT support worked within the expanding organization of SOUTHCOM. Within the J2, SOUTHCOM established a Joint Intelligence Center, staffed by representatives from the intelligence community as well as SOUTHCOM regulars. If Blue Spoon were implemented, this organization would become part of a Joint Task Force (JTF)

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

J2.

~~(S//SI SPOKE)~~ The effort to track Noriega was obviously a critical component of Blue Spoon, and throughout the summer of 1989 NSA continued to refine its SIGINT exploitation of Panamanian internal communications to keep tabs on his location. Beginning at less than a 50 percent success rate, success increased to around 70 percent by November of 1989. SIGINT was the key discipline; it was augmented by HUMINT tracking teams on the ground.²²

~~(S//SI)~~ On December 16, Panamanian forces shot and killed a Marine officer. On the same date, they detained and interrogated a Navy lieutenant and his wife. These two incidents culminated months of calculated harassment by the PDF, and the next day President Bush directed a military invasion, to begin in the early morning hours of December 20. NSA immediately went on a twenty-four-hour alert, along with all SIGINT units targeted against Panama. The effort to track Noriega went into high gear.²³

~~(S//SI)~~ The invading forces brought their own tactical SIGINT with them. The Army sent six low-level voice intercept (LLVI) teams with the airborne forces, while the Marines brought their own SIGINT team. The tactical SIGINT units were coordinated by a Technical Control and Analysis Element (TCAE), part of the JTF J2.²⁴

~~(S//SI SPOKE)~~ Airborne forces hit the country so quickly, in so many places, that the Panamanian military quickly disintegrated. PDF nets, which had been active prior to the invasion, simply went off the air as their disorganized forces fled. Within hours, there was little to copy, and American forces were on their own from an intelligence standpoint. This was true in general, but in particular instances SIGINT still yielded useful information. Tactical SIGINT assets, especially the [REDACTED]



(U) U.S. airborne soldier

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



~~(S//SI-SPOKE)~~ Noriega disappeared from view at the outset of operation Just Cause, and he was never located by American intelligence until he took refuge in the Papal Nunciature on December 24. His last known location, during the evening of December 19, was in Colon, based on both SIGINT and HUMINT. SIGINT then had him departing Colon for Panama City, while HUMINT indicated that he was still in Colon. By the time troops were on the ground, he had disappeared.²⁶

~~(S//SI-SPOKE)~~ The mystery was eventually cleared up by one of his bodyguards who surrendered and was debriefed by U.S. intelligence. As SIGINT indicated, he had in fact departed Colon late on December 19. Partway to Panama City, however, he split from his convoy and headed for a recreation area outside the Torrijos-Tocumen Airport, where he had planned to spend the night with a prostitute. This dalliance was interrupted at about 10 that evening by a phone call from the minister of health, who reported that the Americans were planning to invade. According to the bodyguard, Noriega ignored the warning until he heard explosions at the airport. (It was the XVIII Airborne Corps paratropping into the area.) In panic, he got into his car and drove around in circles for the rest of the night, not daring to stop anywhere for longer than a few minutes. The next day he went to the house of his secretary's husband's sister and stayed there until December 24, when he sought Papal asylum.²⁷

~~(S//SI-SPOKE)~~ Meanwhile, [redacted] HUMINT sent U.S. Special Forces charging first in one direction, then in another, presumably hot on his trail. At one point they invaded Farallon, finding hot coffee and still-smoking cigarettes, but no Noriega. Everyone believed that they were only minutes behind their quarry, but if the bodyguard is to be believed, these forays were all blind alleys. He was never at Farallon, or, for that matter, at any of the other hideouts the Army was monitoring. In all, Special Forces conducted more than forty attempted snatch operations.²⁸



It was marred, however, by a dispute between NSA and [redacted] over who would analyze and

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

report the information. In the end, both did, thus sending duplicate (and sometimes conflicting) information into intelligence channels.²⁹

~~(S//SI)~~ Despite not being able to locate Noriega for four days, the intelligence operation supporting Just Cause must be characterized as a success. The need for SIGINT support was recognized very early and was integrated into military planning. NSA diverted its bounteous Central American assets to Panama and was on top of the problem in fairly short order. The military (particularly the Army) introduced a profusion of tactical SIGINT assets into the plan and undoubtedly copied anything worth copying once the invasion began.

~~(S//SI)~~ The downside, of course, was that there wasn't much to copy. This resulted partly from a successful military operation that scattered opposing forces before they could mobilize. It was also due to a highly efficient jamming effort by the Air Force, which knocked many PDF nets off the air – but also diminished the communications available for exploitation.

OGA

~~(S//SI)~~ There were other problems, too.

inputs. Much of the LLVI intercept duplicated other sources, but this was inevitable and, considering the objectives of the teams, was often required. Army tactical SIGINT teams were equipped with equipment that was hardly as mobile as the supported forces. Eighteenth Airborne Corps counted these tactical SIGINT teams as indispensable to their operations, and recommended a new line of manpack equipment so that the SIGINTers could move as fast as the airborne troops did.³⁰

~~(U//FOUO)~~ All in all, however, Just Cause did much to restore relationships between SIGINTers and the supported forces. This relationship became critical during Desert Storm two years later.

EO 1.4.(c)
PL 86-36/50 USC 3605

(U) Notes

1. (U) NSA/P051, "Grenada Invasion – A SIGINT Perspective," 1 February 1984, CCH Series VIII.36. Ronald H. Cole, *Operation Urgent Fury* (Washington: JCS Joint History Office, 1997).
2. (U) Cole, *Operation Urgent Fury*.
3. (U) Ibid.
4. (U) Ibid.
5. (U) Ibid.
6. (U) Memo, P53, Subject: USSS Support to Grenada Operations, 16 February 1984, in CCH Series XII.D.
7. (U) Ibid.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

8. (U) Telephone interview with Joseph Maguire, 17 April 1998. Cole, *Operation Urgent Fury*.

9. (U) Cole, *Operation Urgent Fury*.

10. (U) Faurer interview.

11. (U) Unless otherwise annotated, information for this section was taken from [] *The Falklands, 1982: An American Perspective*. Special Series, Crisis Collection, "Vol. 4 (Fort Meade: Center for Cryptologic History, 1991).

12. (U) Inman interview.

13. (U) Andrew, *For the President's Eyes Only*, 467.

14. (U) Thomas Donnelly, Margaret Roth and Caleb Baker, *Operation Just Cause: The Storming of Panama* (New York: Lexington Books, 1991), 4-5.

15. (U) Ibid.

16. (U) Ibid., 8-10.

17. (U) [] "Support to Military Operations: NSA's Contribution to Operation Just Cause," November 1991 MSSI thesis, Joint Military Intelligence College, Washington, D.C.

18. (U) Ibid. 19 March 1990 memo from [] "After-Action Report," CCH Series VIII.11.A.

19. (U) [] thesis.

20. (U) Ibid. [] memo.

21. (U) XVIII Airborne Corps Briefing on Just Cause, in CCH Series VIII.11.A.

22. (U) Donnelly, et al., *Operation Just Cause*. XVIII Airborne Corps Briefing on Just Cause.

23. (U) [] thesis. [] memo.

24. (U) [] memo. XVIII Airborne Corp Briefing.

25. (U) CCH Series VIII.11.A.

26. (U) [] memo.

OGA

27. (U) CIA debrief of [] in CCH Series VIII.11.A.

28. (U) Donnelly, et al., *Operation Just Cause*, 104-06.

29. (U) [] memo.

30. (U) Ibid.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

(U) Chapter 25

Iran-Contra

(U) The Iran-Contra scandal dominated the newspapers during the second Reagan administration. The affair hit the newsstands in October of 1986 when the Sandinistas shot down an aircraft making arms deliveries to the Contras, and captured an American, Eugene Hasenfus, who had been kicking pallets of material out the back end of the aircraft for the Contras waiting on the ground. Almost simultaneously, a Lebanese newspaper broke the story of attempts by the Reagan administration to free American hostages in Lebanon with sales of arms. From that time on, it was never out of the press.

(U) CONTRA

~~(S//SI)~~ For NSA, it was originally a Latin American problem. After the Cuban Missile Crisis subsided in the early 1960s, targets south of the border had taken a decidedly low profile. With occasional exceptions, Latin American problems were not high on the national priority. The most conspicuous exception was Panama (see page 379).

(U) Ronald Reagan's Republican Party had generally opposed an accommodation with Panama, and when Reagan was elected president there was some talk about trying to reverse the treaty. But it was never a serious threat, and Congress chose to let the issue ride, in hopes that arrangements with Torrijos would work out. Reagan's Latin American focus was decidedly elsewhere – toward Nicaragua.

(U) *The Nicaraguan Revolution and the Concern about Communist Subversion*

(U) Nicaragua, in company with most Central American principalities, was a country wracked by periodic revolution, military coups, tyranny and subversion. The situation had gotten so bad that in 1912 President Taft had sent in the Marines. They stayed until 1933. In 1927, Henry Stimson was sent to the country to negotiate a political settlement. He succeeded in obtaining the agreement of all but one general, Augusto Cesar Sandino. Sandino fled to the hills with a few followers and tried to disrupt the American-sponsored elections of 1928. He and his followers continued fighting a guerrilla war for seven years, but in 1934 National Guard troops under an emerging strongman, Anastasio Somoza, collared the obstreperous revolutionary and summarily executed him. Later that year Somoza ousted the government and inaugurated forty-five years of dictatorship.¹

(U) Sandino remained the hero of the dispossessed, and the movement, which came to be named after him, took on an anti-American hue. Somoza and his greedy family stayed in power, imposing one of Latin America's least enlightened regimes on the defenseless country.

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) By the early 1970s Somoza's son, Anastasio Somoza Debayle, was in power. Less politically adept than his father, he fought off the growing Sandinista guerrilla movement through brute force. His resort to force attracted the attention of Amnesty International, as well as the liberal wing of the American Democratic Party, which demanded that foreign aid to the Nicaraguan government be cut off. The issue resonated with President Carter, but Carter had his hands full with other matters and tried to let the Nicaraguan situation ride. Omar Torrijos, no stranger himself to strongman rule, once said, "...the crisis in Nicaragua can be described as a simple problem: a mentally deranged man with an army of criminals is attacking a defenseless population.... This is not a problem for the OAS; what we need is a psychiatrist."²

(U) On August 22, 1978, the Nicaraguan scene was permanently disrupted. On that date an obscure Sandinista general, Eden Pastora, captured the National Palace while congress was in session and extorted from Somoza a list of concessions, including releasing various Sandinista figures from jail. Nicaragua went into a state of long-term turmoil, with mob rioting, looting, government retaliation, executions, and the like. For almost a year the country descended into chaos, a descent that was finally interrupted on July 17, 1979, when Somoza and his family finally left the country. The Sandinistas took over.³

(U) The triumph of a viscerally anti-American revolutionary group in Nicaragua presented the Carter administration with a square dilemma. Carter, always predisposed toward such popular movements, on the one hand welcomed the overthrow of the odious Somoza regime, while on the other tried to convince the Sandinistas not to throw in their lot with Cuba and the Soviet Union. The U.S. promptly shipped \$39 million in food aid to Nicaragua.

(U) It didn't work. The Sandinistas turned slowly but surely toward Moscow. In March of 1980 they signed a comprehensive economic, scientific and cultural agreement with the USSR. In July, on the anniversary of the revolution, Fidel Castro was the most prominent speaker. Cuban advisors moved into Managua. In the meantime, the Sandinista leader, Daniel Ortega, announced that democratic elections were to be postponed until 1985, and forced the moderate element, led by newspaper publisher Violetta Chamorro and Alfonso Robelo, into opposition.⁴

(U) The problem for Carter was not Nicaragua, but the tinderbox satrapies to the north - El Salvador, Honduras and Guatemala. Following the treaty with Moscow, the CIA began seeing evidence of Nicaraguan support for similar guerrilla movements, especially in El Salvador. Carter tried to play the issue both ways. In order to continue foreign aid to Nicaragua (the carrot approach to Ortega and company), he publicly certified that the Sandinistas were not supplying arms to neighboring guerrilla movements. But the CIA had hard evidence to the contrary, and Carter privately signed a finding to support democratic elements (read Contras) in Nicaragua. Just before the elections that would result in Ronald Reagan becoming president, the Sandinistas began flooding El Salvador with arms in hopes of overthrowing the government outright. An outraged Carter sent his ambassador, Anthony Pezzullo, to deliver a stinging rebuke to

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Ortega. Rejected, Carter continued arms deliveries to the repressive right-wing government of El Salvador.⁵

~~(S//SI)~~ While Carter smoldered with pent-up fury at Sandinista perfidy, Reagan was completely out front with it. The Republican platform for the election of 1980 called for the overthrow of the Nicaraguan government. As soon as Reagan became president, he suspended the final \$15 million of a \$75-million aid package for the country, and in March he continued the CIA covert program of aid to the Nicaraguan opposition that Carter had begun. A finding of December 1981 stated that the American objective was to interdict the flow of arms to neighboring countries, rather than to overthrow the Nicaraguan government. All intelligence sources, SIGINT among them, documented the arms buildup and the increased involvement of Cuba in the situation.⁶

(U) The Contra movement in Nicaragua had begun in 1980 as an inchoate agrarian protest against government policies. As the Sandinistas swung to the left, the Contras got stronger. There were small Contra groups in the south, unorganized at first, but led later by the very same Eden Pastora who had begun his public life as a prominent Sandinista general. In the north the groups were larger and better organized; they came to be dominated by a unified organization under a former National Guard officer, Enrique Bermudez. Pastora and Bermudez did not get along (for obvious ideological reasons, if nothing else). Forced to choose, CIA chose Bermudez and began aiding his guerrillas in their camps in Honduras.⁷

(U) It is essential to understand the U.S. political conditions under which the guerrilla war was being fought. A 1974 amendment to the annual Foreign Assistance Act, called the Hughes-Ryan Amendment, required the president to "find" that each covert activity was "important to the national security of the United States," and that the president report such operations to Congress "in a timely fashion."⁸

(U) It had become customary to report such "findings" to the HPSCI and SSCI - that constituted "notification." Thus Congress was aware of, and had acquiesced in, the Contra operation. But in November of 1982 the "covert" effort was publicly exposed in the nation's leading newspapers. This produced a great deal of congressional agitation for an end to the effort, and resulted in a compromise, called the Boland Amendment, after Edward Boland of Massachusetts, the Democratic chairman of HPSCI. According to the amendment, no appropriations could be spent "for the purpose of overthrowing the government of Nicaragua or provoking an exchange between Nicaragua and Honduras." Although somewhat restrictive, the amendment dealt with intent, not activities. Support to the Contras remained legal as long as its overt objective was not overthrow, just interdiction of arms. But the next year, following the harbor mining episode (see page 391), a second Boland Amendment (called "Boland Two") prohibited the expenditure of funds for the purpose of Contra support, whatever the motivation. This meant that, at least for fiscal year 1985, the flow of aid would run dry.⁹

~~(S//SI)~~ The SIGINT capability in the area was good. Army and Navy conventional sites in the Canal Zone acquired mostly HF signals. Owing partly to its

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

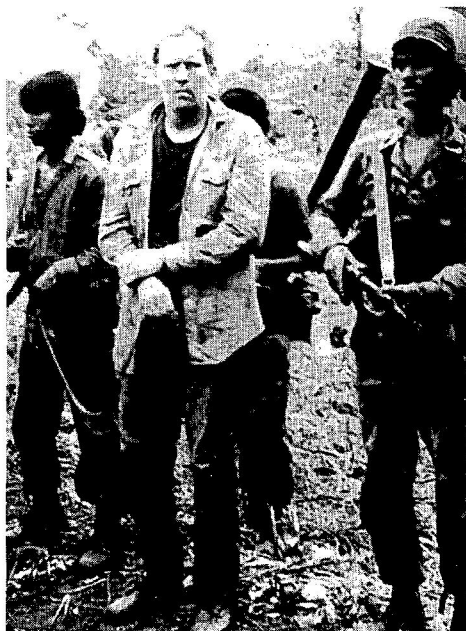
proximity to the United States, mobile SIGINT was readily available, beginning with [redacted] flights out of Offutt AFB, Nebraska (normally targeted against Cuba). The RC-135s were augmented by a plethora of tactical programs which operated sporadically in the Caribbean: [redacted]

~~(TS//SI-UMBRA)~~ At NSA, the effort against Central America expanded fourfold in six years. The exploitation of Nicaraguan communications was excellent. The most lucrative source was the microwave network, which, like Cuban microwave before it, yielded large volumes of military information. [redacted] NSA obtained [redacted] [redacted] tactical military radio traffic. [redacted]

EO 1.4.(c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S//SI-SPOKE)~~ And while they were at it, NSA analysts exploited Contra transmissions to keep a check on their activities. The Agency was also reading Nicaraguan SIGINT messages. It was clear, long before Eugene Hasenfus was shot down, that the Nicaraguans had a good handle on CIA-sponsored resupply flights and that the Sandinistas had shoulder-launched missiles that could bring them down. (This was how the Hasenfus aircraft was grounded.)¹⁵



(U) Eugene Hasenfus

~~(S//SI-SPOKE)~~ NSA analysts did not come out of this with a high regard for Nicaraguan military or administrative capabilities. The general consensus at Fort Meade was that the revolution would die of incompetence. One NSA hard-copy report called "Nicaraguan Military Capabilities" put forth a very low estimate of those capabilities. The view was unpopular downtown – the party line was to maximize the threat.¹⁶

(U) The Reagan administration's effort to stop Sandinista subversion in Central American ran into all sorts of political problems. It had only a hair-thin majority in Congress when, in April of 1984, *The Wall Street Journal* released a story claiming that CIA was helping mine Nicaraguan harbors, thus endangering commercial shipping. (Several ships, including a Soviet tanker had been damaged.) The story created chaos

in Congress, where administration allies were delicately trying to steer the 1985 Contra aid package to approval. Barry Goldwater broke openly with William Casey, alleging that he had not been informed of the operation (not that he did not approve, however). Other congressmen opposed a direct CIA presence in the operation. Aid was voted down, and the administration was confronted with its first outright break in the funding cycle for its Contra guerrilla groups. Aid was not restored in any fashion until the 1987 budget year. But no sooner was aid reestablished than a Contra resupply flight was shot down in late 1986 with a CIA contractor, Eugene Hasenfus, aboard. Chaos again roiled the Contra program.¹⁷

(U) The Reagan effort against the Sandinistas was smart because it was broad-based. Not putting its eggs in one basket, the administration funneled military aid to El Salvador and Honduras, increased intelligence surveillance, and mounted a public information program to build domestic support. Despite missteps like the harbor mining, they could rely on Sandinista administrative incompetence and heavy-handed domestic repression.¹⁸ Slowly, the tide began to turn.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

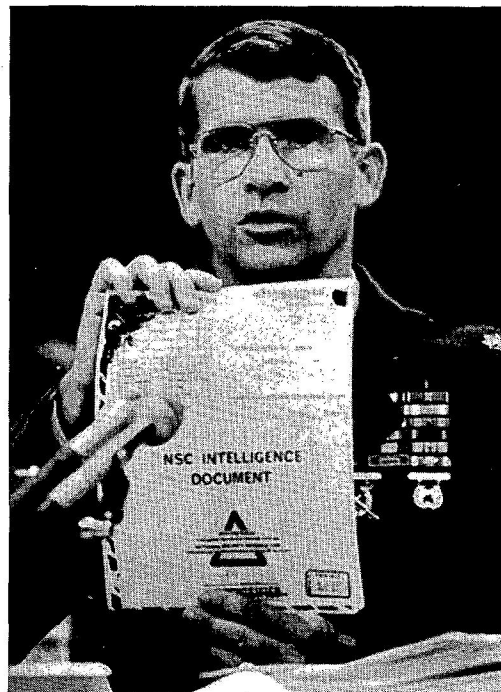
~~(S//SI)~~ In later years many NSA officials still felt uneasy about the Latin American target. The problem was not just CIA's dealings with its clients; it also related to the legality of applying money to a problem whose spending authorization was constantly in question. Sometimes money had been appropriated; sometimes it hadn't. Sometimes CIA was trying an end run around congressional restrictions by trying to use defense money. Many NSA actions required a legal ruling. Should an employee inadvertently step over a line, would he or she be liable? And who would pay legal fees if the matter ever went to court? It was not a moot question, as the Iran-Contra scandal would soon demonstrate.

(U) IRAN

(U) In the summer of 1985, Oliver North, an obscure Marine lieutenant colonel on the NSC staff, was running a covert operation to try to get Western hostages out of Lebanon. His primary contacts were with Iranians, who were presumably backing the Lebanese terrorists holding the hostages. It involved covert dealings with Israeli intelligence, trips to Iran, and direct dealings with an Iranian businessman named Ghorbanifar. The operation suffered from leaky security.

EO 3.3b(6)

~~(TS//SI UMBRA)~~ The matter remained strictly a White House affair until, on September 12, 1985, [] published a product report which named two Iranians, Asghari and Kangarlu, in covert arms deals. Charlie Allen, the NIO for counter-terrorism and the



(U) Oliver North

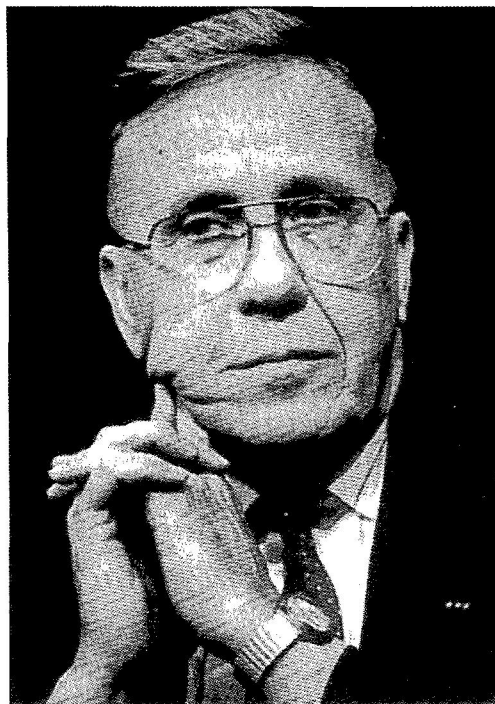
~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

designated CIA contact point for Oliver North's hostage release project, recognized the names as the middlemen that North was working with. He called NSA immediately and requested that the communications of Asghari and Kangarlu be placed on high-priority tasking and that the reports be distributed hardcopy only to an extremely limited distribution. NSA tasked



resulting series, dubbed the "AK-reports" (the initials of the last names of the two Iranians), gave the NSC a detailed and timely check on the Iranian side of the action. The message distribution was initially limited to only three people on the National Security Council (including North himself and his boss, John Poindexter), to DCI William Casey, and to the assistant to the chairman of the JCS, Admiral Arthur Moreau. Such matters were considered extremely sensitive and could leak if anyone not directly involved got wind of them. This would blow not just the operation; it would also expose NSA's capabilities to monitor international arms transactions.²⁰



(U) Charles Allen

~~(TS//SI//UMBRA)~~ Moreau began sharing the intercepts with Colin Powell, who was then the military assistant to the secretary of defense. Powell alerted Weinberger, who called the director, William Odom, to insure that he was added to the distribution. (But Secretary of State George Shultz, who, with Weinberger, was opposing the arms-for-hostages swap, was never included, although Odom tried to keep State up with things by occasional phone calls to Schultz assistant Michael Armacost.)²¹

~~(S)~~ In November of 1985, Ken deGraffenreid, the NSC staffer in charge of intelligence issues, discovered that North was devising hand codes for use in the operation. DeGraffenreid, who fully appreciated the insecurity inherent in such a bootleg code, called NSA's John Wobensmith, then the chief of staff to Harry Daniels, the assistant deputy director for information security (DDI). Wobensmith went to the White House that afternoon and discussed the matter with deGraffenreid, and they decided that Wobensmith should give North a threat briefing. North understood the problem and asked about COMSEC equipment.²²

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S)~~ The problem was tangled. North would need COMSEC equipment to secure his own communications, but he did not tell Wobensmith who else might be involved in the communications. The relationship with North broadened as Wobensmith continued to work with him to protect the operation. In December, North told him that he was involved in an effort to free the hostages in Lebanon, and was dealing with Iranians. Thus, Wobensmith understood from an early date that North was engaged in trying to extricate the hostages from Lebanon.²³

~~(S)~~ Wobensmith had limited choices. If only U.S. government officials were involved,



(U) John Wobensmith

(U//~~FOUO~~) Wobensmith first gave North four [] advising him that if he were not satisfied, to come back. North soon called to say that the [] equipment was not

doing the job. Wobensmith then provided a certain number (the precise number is unclear) of the U.S.-only [] and demonstrated their use to North in the White House on at least one occasion.

(U//~~FOUO~~) On several occasions North's Iranian contacts requested encryption support, and in February of 1986 North called Wobensmith to ask for some encryption equipment that "might fall into Iranian hands." Wobensmith delivered [] equipment to North for this purpose, but the equipment was never actually handed over to the Iranians.²⁵

(U//~~FOUO~~) Unknown to NSA and Wobensmith, North had, in early 1986, decided to mix the Iran and Contra operations. He needed money to support the Contras, and could get it by overcharging the Iranians for the missiles that they so badly wanted. But the two operations got intertwined in other areas too. North used some of the [] to secure communications in Latin America in order to cover the drop zones where arms were being supplied to the Contras. Some of this equipment might have been used by non-Americans. The [] on the other hand, were used to secure hostage-related communications, and some of them might have been made available to Israelis.²⁶

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~(S)~~ There was no "standard operating procedure" for support to the White House. Wobensmith did things on the fly and did not keep good track of receipts, much less monitor exactly how, and by whom, the equipment was being used. Because of the sensitivity of the mission, he had little or no staff support. He kept the DDI, Walter Deeley, and his deputy, Harry Daniels, informed, and also touched base with the DDO, Dick Lord (who was primarily concerned about Oliver North's method of operation) and Robert Rich, the deputy director. He received general guidance to press ahead and give the White House whatever it wanted, but to make sure that North understood the special sensitivity associated with the [] He followed those instructions.²⁷

(U//~~FOUO~~) One of the consequences of the press exposure of Iran-Contra was exposure of NSA's dealings with North on encryption gear. General Odom was outraged. He had tried his best to keep NSA out of the scandal, and believed that he had done so, but the North-Wobensmith connection dragged NSA into the investigations. This produced an investigation within NSA itself to determine if procedures had been followed. The NSA inspector general discovered numerous procedural violations and concluded that some of the [] were still not accounted for. The hindsight report also concluded that both [] had been "loaned" to foreign nationals. But it was more difficult to sort out the "What would I have done in his shoes" issue. The investigation came up with clear contradiction between Wobensmith's version of what happened and Odom's. According to Wobensmith, he briefed Odom on the whole matter in March of 1986 and got the approval to continue; according to Odom, this meeting never happened.²⁸

(U//~~FOUO~~) There was no resolving the differing accounts, but because there were procedural violations, Odom decided to discipline Wobensmith, suspending him without pay for fifteen days. Wobensmith hired a lawyer and fought the charges. He appealed, and a review panel ruled that the disciplinary action should be dropped and Wobensmith's legal fees (at that point amounting to about \$40,000) be paid by the government. Odom was reportedly furious at the board action and decided to lower the recompense of legal fees to less than \$10,000. Wobensmith appealed to Secretary of Defense Frank Carlucci. The appeal dragged on until 1988, when a new director, Admiral William Studeman, ruled in Wobensmith's favor.²⁹

(U//~~FOUO~~) Outside of NSA, the "Wobensmith affair" was a very minor blip on the public radar. It never had the potential to rock the Agency the way Watergate had. But inside NSA, it was one of the most divisive personnel issues in Agency history. It pitted a director determined to keep NSA out of public scandal against virtually the entire civilian hierarchy, determined to protect one of its own from retaliation that they perceived as scapegoatism. The puzzling gaps in chronology and differing recollections of what had happened were never resolved. But the bottom line was a verdict in favor of Wobensmith by the investigative board, by one former director (Bobby Inman, a member of the board), and by General Odom's successor, Admiral William Studeman.

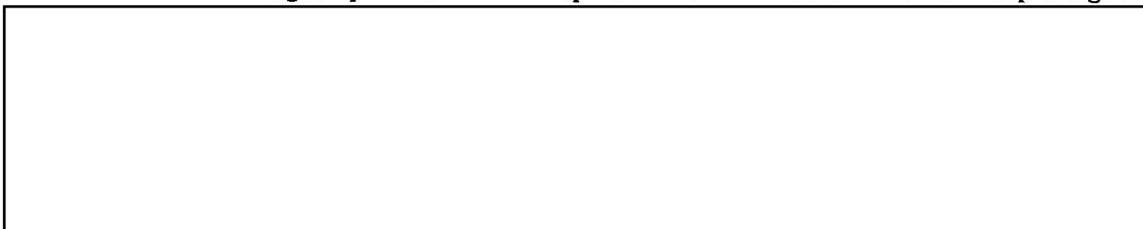
~~(S//SI)~~ But that was not the end of the affair. North had overcharged the Iranians for the weapons, and had siphoned the profits (which amounted to several million dollars) into

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

special bank accounts to fund the Contra operations during periods when congressional funds were either not appropriated or outright prohibited. A special prosecutor, Lawrence Walsh, was called in to investigate the possible illegal diversion of funds to the Contras. NSA was pulled into the subsequent investigations because of its product reports relating to the arms-for-hostages operation – A-K reports. NSA was determined to keep a tight

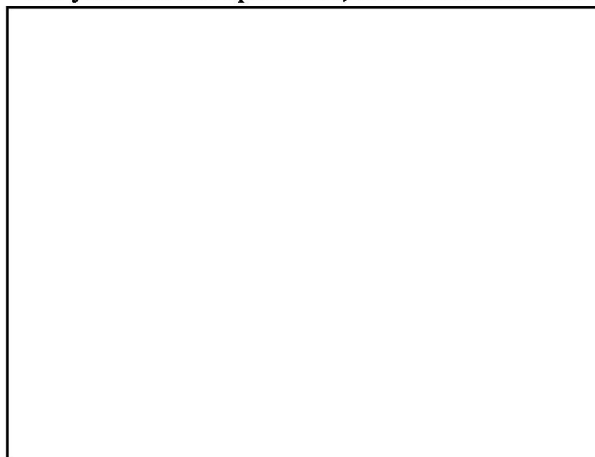


the traffic that produced the A-K reports noted the disparity between what North was paying for the arms and what he was charging the Iranians, but no one at NSA ever connected this with the Contra operation. According to Robert Mueller, then chief of G, "It makes me furious to this day that we had all the information necessary to figure out that money was going into the Nicaraguan fund....As far as I know, no one in G ever made that connection....I don't think anyone ever asked the question, What happens to the extra money...." ³¹



(U) Judge Lawrence Walsh

~~(TS//SI-UMBRA)~~ When Judge Lawrence Walsh, the special prosecutor, initiated his long-running Iran-Contra investigations, NSA lawyers knew that he would want to see the NSA reports on the hostage issue. Over the years of the operation, there were several



~~(S//SI SPOKE)~~ The "A-K reports," about 250 in number, represented a subset of the hostage-related reports dealing specifically with the Reagan administration's attempts

to get the American hostages released. In order to forestall attempts to use them in court, NSA lawyers tried to establish a fluid working relationship with the Walsh legal team.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

This approach had worked with in the Pelton investigation in 1985 and during the Church Committee hearings a decade earlier.

(U) It did not work with Walsh's team. The prosecutors, failing to appreciate the sensitivity of the information, structured an indictment of North that made the A-K reports central to the issue, thus virtually guaranteeing that North's attorney, Brendan Sullivan, would request their use in court. The inevitable Sullivan request was a classic case of "grey mail" – a demand to introduce documents in court, the sensitivity of which guaranteed that prosecutors would not use them. Sullivan alleged that the reports would show that North's superiors in the NSC were being kept informed of the operation at every step. Walsh wanted to use them for the opposite purpose – to depict in considerable detail how the arms-for-hostages operation functioned.³³

(U//~~FOUO~~) Sullivan's request for the A-K reports touched off a fierce dispute between NSA and the Walsh team. Walsh simply could not understand NSA's concerns about sensitivity of sources and methods and contended that, since aspects of NSA's mission had already been discussed in the press, revealing the A-K reports would do no further damage. In December of 1988 NSA and the Walsh team tried to patch together a compromise position, but could not arrive at an agreement that the federal judge, Gerhard Gesell, would accept. In a climactic meeting on December 21, Walsh confronted NSA's general counsel, Elizabeth Rindskopf, who refused to back down. The matter was referred to the attorney general, Richard Thornburg, who backed Rindskopf. Walsh, in frustration, moved to dismiss the conspiracy counts which were the centerpiece of the indictment against Oliver North.³⁴

(U) Although the principals in the Iran-Contra investigation were ultimately pardoned, the decisive moment had actually been reached on December 21, 1988. It was a constitutional crisis nearly as significant as that which nearly brought an end to Executive Department cooperation with the Pike Committee in 1975 (see Vol III, 97-98). Once again, the sensitivity of NSA materials was the centerpiece of the dispute, and once again, the administration came down on the side of NSA.

(U) Like Otis Pike, Walsh never forgave the intelligence community, and specifically NSA. He viewed the Agency's conduct as part of a Reagan administration conspiracy to thwart the Iran-Contra investigation and free North, Poindexter, McFarlane and others involved in the operation. In his account of the investigation he discussed the forces arrayed against him:

If I had overlooked the invisible forces on Capitol Hill, I had also underestimated the power of the formidable departments and agencies responsible for national security. The national security community comprised the largest and most protected government entities, each with its own legal staff....We had not begun to address our greatest vulnerability, which derived from the national security community's power to overclassify information to prevent the full exposure of its misconduct.³⁵

He never seemed to consider the inherent sensitivity of the source – to Walsh, it was all a smokescreen intended to hide malfeasance.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Notes

1. (U) Robert Kagan, *A Twilight Struggle: American Power and Nicaragua, 1977-1990* (New York: Free Press, 1996), 21.
2. (U) Ibid, 81.
3. (U) Ibid., 56-77.
4. (U) Theodore Draper, *A Very Thin Line: The Iran-Contra Affair* (New York: Hill and Wang, 1991).
5. (U) Kagan, *A Twilight Struggle*, 16.
6. (U) Draper, *A Very Thin Line*, 16. Examples of NSA reporting on the arms buildup and Nicaraguan activities in support of their kindred movements in neighboring countries were found in the Reagan Library, NSF, and samples retained at NSA, in CCH Series XVI.J, "Miscellaneous."
7. (U) Kagan, *A Twilight Struggle*, 148-50. Draper, *A Very Thin Line*, 17.
8. (U) Draper, *A Very Thin Line*, 13-14.
9. (U) Kagan, *A Twilight Struggle*, 321-22, 337. Draper, *A Very Thin Line*, 22-23.
10. (U) Interview with [] by Tom Johnson, 13 January 1997.
11. (U) Millington, manuscript on the history of [] Interview with [] by Tom Johnson, 30 January 1997. NSA Archives, acc nr 40991, H03-0405-7.
12. (U) [] interview. [] interview. Interview with [] by Tom Johnson, 29 January 1997.
13. (U) NSA Archives, acc nr 44850, H03-0611-2.
14. (U) [] interview. [] interview. NSA Archives, acc nr 46117, H04-0210-7.
15. (U) NSA Archives, acc nr 46117, H04-0210-7. [] interview. NSA retired records, 96567, GC Iran-Contra files, "Documents."
16. (U) [] interview.
17. (U) Kagan, *A Twilight Struggle*, 377-81.
18. (U) Ibid.
19. (U) NSA Archives, acc nr 46117, H04-0207-7. [] interview. Las Casas, *NSA Involvement*..., 103.
20. (U) Odom interview. Interview, Robert Mueller, OH 6-98, NSA. NSA retired records, 966567, Box 108267, "Working file Alsup."
21. (U) Colin L. Powell (with Joseph Persico), *My American Journey* (New York: Random House, 1995), 307. Odom interview.
22. (U) Interview, John Wobensmith, by Tom Johnson, 8 November 1996, OH 34-96, NSA. Interview, Kenneth deGraffenreid, by Tom Johnson, 20 February 1998, OH 5-98, NSA.
23. (U) deGraffenreid interview. Wobensmith interview.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

24. (U) Interview, Benjamin Hoover, by Tom Johnson, 1997. DDIR files, Box 10, "Iran-Contra." Wobensmith interrogation in NSA retired records, 96567.
25. (U) Wobensmith interview. DDIR files, Box 10, "Iran-Contra." *Congressional Quarterly, The Iran-Contra Puzzle* (Washington, D.C.: *Congressional Quarterly*, 1987). Draper, *A Very Thin Line*, 177.
26. (U) *Iran-Contra Puzzle*. Draper, *A Very Thin Line*, 97, 102. Wobensmith interrogation in NSA retired records 96567.
27. (U) DDIR files, Box 10, "Iran-Contra." Wobensmith interrogation in NSA retired records, 96567.
28. (U) Interview, Eugene Becker, by Tom Johnson, 14 May and 13 June 1996, OH 11-96, NSA.
29. (U) Wobensmith interview. DDIR files, Box 10, "Iran-Contra." *New York Times*, 3 June 1988.
30. (U) Interview, [redacted] November 1997, by Tom Johnson and [redacted] OH 14-97, NSA.
31. (U) Mueller interview.
32. (U) Reagan Library, NSF, in CCH Series XVI.J, "Iran-Contra."
33. (U) Lawrence E. Walsh, *Firewall: The Iran-Contra Conspiracy and Cover-Up* (New York: W.W. Norton and Co., 1997), 177-78.
34. (U) Walsh, *Firewall*, 177-78. Interview, Elizabeth Rindskopf, by Tom Johnson, 20 February 1998, OH 4-98, NSA.
35. (U) Walsh, *Firewall*, 51, 54.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Chapter 26

The Year of the Spy

(U) The Cold War topped off with a series of bizarre counterespionage incidents in the mid-1980s which served to increase mutual U.S.-Soviet paranoia. More newspaper ink was expended on these incidents than almost anything since Watergate. They came to be lumped into a convenient moniker, like Watergate: the "Year of the Spy." Like Black Friday, the term was not quite accurate in a technical sense – far more than just 1985 was involved, and far more than just agents were in question. But like Black Friday, the term stuck as a convenient shorthand. In most of these incidents, NSA was heavily involved.

(U) GUNMAN

~~(S)~~ Of all the problems, the troubles with the new embassy building (termed the NOB, New Office Building) in Moscow appeared to be the least likely venue for NSA involvement. But appearances sometimes deceive, and embassy security was one of those cases. In fact, NSA had developed a certain technological expertise by virtue of its oversight of the Tempest emanations control program. This, combined with NSA's charter to establish standards for the protection of all COMSEC equipments, which included the communications centers in State Department's overseas embassies, got NSA into the act.

~~(S)~~ NSA representatives began serving on a committee in the mid-1950s that dealt with this problem and began to assert both its expertise and authority in the area. By 1960 NSA was firmly entrenched in embassy security matters, much to the disquiet of State, which squirmed at any oversight of the overseas physical plant by a DoD agency.¹

~~(S)~~ When, in the 1960s, the U.S. and the USSR arranged to build new chanceries, NSA was one of the first agencies to express reservations about the security of the U.S. building in Moscow. It had become well known in the early 1950s that the Soviets were inclined to bug anything in the U.S. embassy that they could get their hands on. The infamous bugging of the Great Seal (exposed in 1952) showed that they possessed sophistication beyond what would normally have been expected. In 1966, in commenting on the plans for the NOB in Moscow, Dale Croskery of NSA wrote to U.S. Ambassador to Moscow Malcolm Toon that "In past Soviet building activity concerning embassies it could be predicted that every attempt would be made to 'fix' the materials and the construction. Experience has shown that some of the fixes can only be found by extensive destruction. In the case of the Moscow site every attempt should be made to use U.S. building materials and construction personnel."²

(U) State did not follow the NSA advice. When construction of the NOB began in Moscow in 1979, the state-owned Soviet company was permitted to prefabricate concrete columns and other components off site, without American inspection. Meanwhile, the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Soviets insisted that all components for their embassy in Washington be fabricated under the watchful eye of their own inspectors. Once on-site construction began, the Soviets used thirty security people to monitor an American work force of about 100 people, while in Moscow twenty to thirty Navy Seabees tried to watch six hundred to eight hundred Soviet laborers.³

~~(TS)~~ In the early 1980s people on Reagan's National Security Council became concerned about the hostile foreign intelligence threat in general and about the security of the Moscow embassy in particular. So in 1982 NSA sent a team of people to look at technical penetrations in the Moscow embassy. They found the chancery honeycombed with insecurities, including cipher locks that didn't cipher and alarms that didn't sound. NSA alerted the FBI, which did its own survey and confirmed the problems that NSA had found, plus others. John Wobensmith, the DDI representative to the White House, teamed up with an FBI representative to brief President Reagan on the matter. The State Department, already suspicious of NSA "meddling" in embassy affairs, was reportedly unamused.⁴

~~(TS)~~ In January of 1983, [] technicians working on teleprinters in their embassy in Moscow discovered some condensers with four wires protruding, instead of the usual two. They checked further, and to their dismay found that the teleprinters had been implanted with sophisticated bugs. The embassy promptly wired the foreign ministry in []

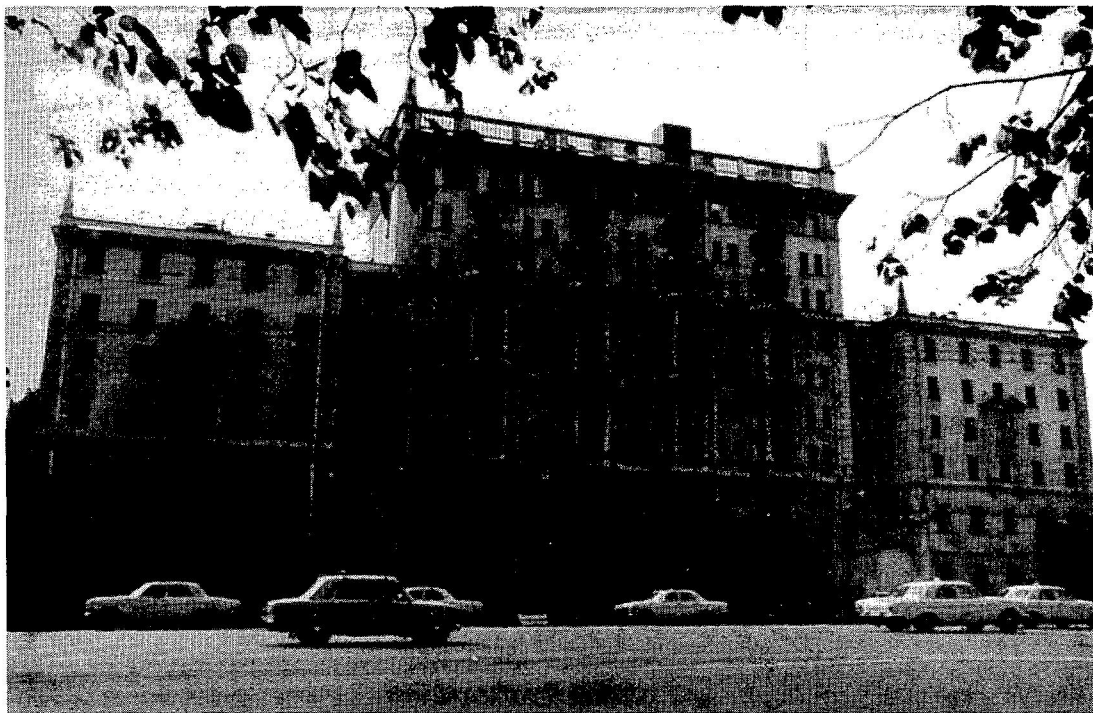
~~(S//SI)~~ In the summer of 1983 [] informed General Faurer of the find. Faurer sent two of NSA's experts, [] of the COMSEC organization and [] of R9, to [] to look at the bugged teleprinters. This resulted in an an-eyes-only memo to the president's national security advisor describing the new security threat. Faurer recommended that the U.S. quickly remove equipment from the embassy in Moscow "in a manner that is not immediately detectable by the Soviets and replace it with sterile equipment...." There was to be no discussion about this in Moscow, and no electrical messages of any kind relating to it. He recommended that NSA be given the job. Copies of his memo went only to the secretary of state, DCI, and deputy DCI.⁵

(U) The project, called Gunman, involved the removal of eleven tons of electronic equipment from the Moscow embassy – teletypes, printers, computers, crypto devices, copiers – almost anything that plugged into a wall socket. Every piece of equipment had to be replaced with the same or an upgraded model on a one-for-one swap-out. NSA's cover story was that the equipment was being shipped back to the States for an OSHA inspection.

(U) NSA procured the replacement equipment from sources in the U.S. and Europe and packaged it for shipment in specially constructed boxes to Frankfurt, Germany, where it would be staged for shipment to Moscow. The boxes were equipped with special sensing devices that could detect any attempt at tampering. (At the Moscow end no such tampering was detected.) NSA logisticians loaded all eleven tons onto two chartered

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~EO 1.4.(b)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

(U) U.S. embassy, Moscow

Lufthansa Airbuses. They were flown directly from Frankfurt to Moscow, where they were trucked on flatbeds to the embassy. They were then winched manually to the attic, which was the only area large enough to stage that much equipment. Then, as equipment was pulled from working spaces and trucked to the attic, new equipment was carted down the stairs to the working spaces.

(U) The last items crammed into the boxes at NSA were fifty IBM Selectric typewriters. The typewriters were an afterthought. They were electric, and some of them did process classified or sensitive information, but this had been overlooked in the initial evaluation. A hurried inventory revealed about 250 of them in use in the embassy, but the IBM plant at Lexington, Kentucky, could spare only fifty, and NSA took them all. Said the NSA official in charge of the swap-out, "I had no targeting against typewriters....Had those typewriters not come [in time] from Lexington..., I would have shipped without them without a wink...." ⁶

(U) Back at NSA, a team of about twenty-five technicians worked around the clock to try to find bugs in the equipment taken from the embassy. Everyone was aware that the operation involved huge sums of money and had required presidential approval. NSA's reputation was literally on the line. Walter Deeley, the DDI, had personally pushed Gunman through to the White House and in turn pushed his own people to lay out a maximum effort. But for two desperate months, nothing turned up.

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1

(U) Then they turned to the typewriters, a lower priority than the equipment that had come from the communications center. One evening in July Michael Arneson, a technician analyzing one of the typewriters, found a "ghostly gray" image on his x-ray film coming from the power cord. Immediately suspicious, he x-rayed the set from the top down. The x-ray images coming from the center of the set were cluttered and definitely nonstandard.

(U) What Arneson had found was a sophisticated bug implanted in a structural metal bar that ran the length of the machine undercarriage. It consisted of sensing devices that picked up tiny fluctuations in current caused by the typewriter ball rotating as it selected the next letter to be typed. It drew its power by bleeding the power line (that was the "ghostly gray image" that Arneson first noticed) and stored the information for periodic burst transmissions to KGB receivers waiting in locations outside the embassy. The bug was undetectable using current technical survey equipment, and the modifications to the metal bar were imperceptible to routine examination. It could be found only by x-ray devices.

(U) Technicians discovered ten bugged Selectrics in that first shipment. NSA immediately retrieved the Selectrics that still resided in Moscow (and in the consulate in Leningrad). Ultimately they found sixteen implants – but only in typewriters. They had been installed somewhere in transit (perhaps Poland or Moscow itself) as they awaited customs inspection. There was a rule that equipment to be used for processing classified information was to be shipped only in courier channels, but a small percentage had "escaped" and were shipped in regular shipping channels with office furniture. The KGB could easily identify candidate typewriters by finding those with Tempest modifications.⁷

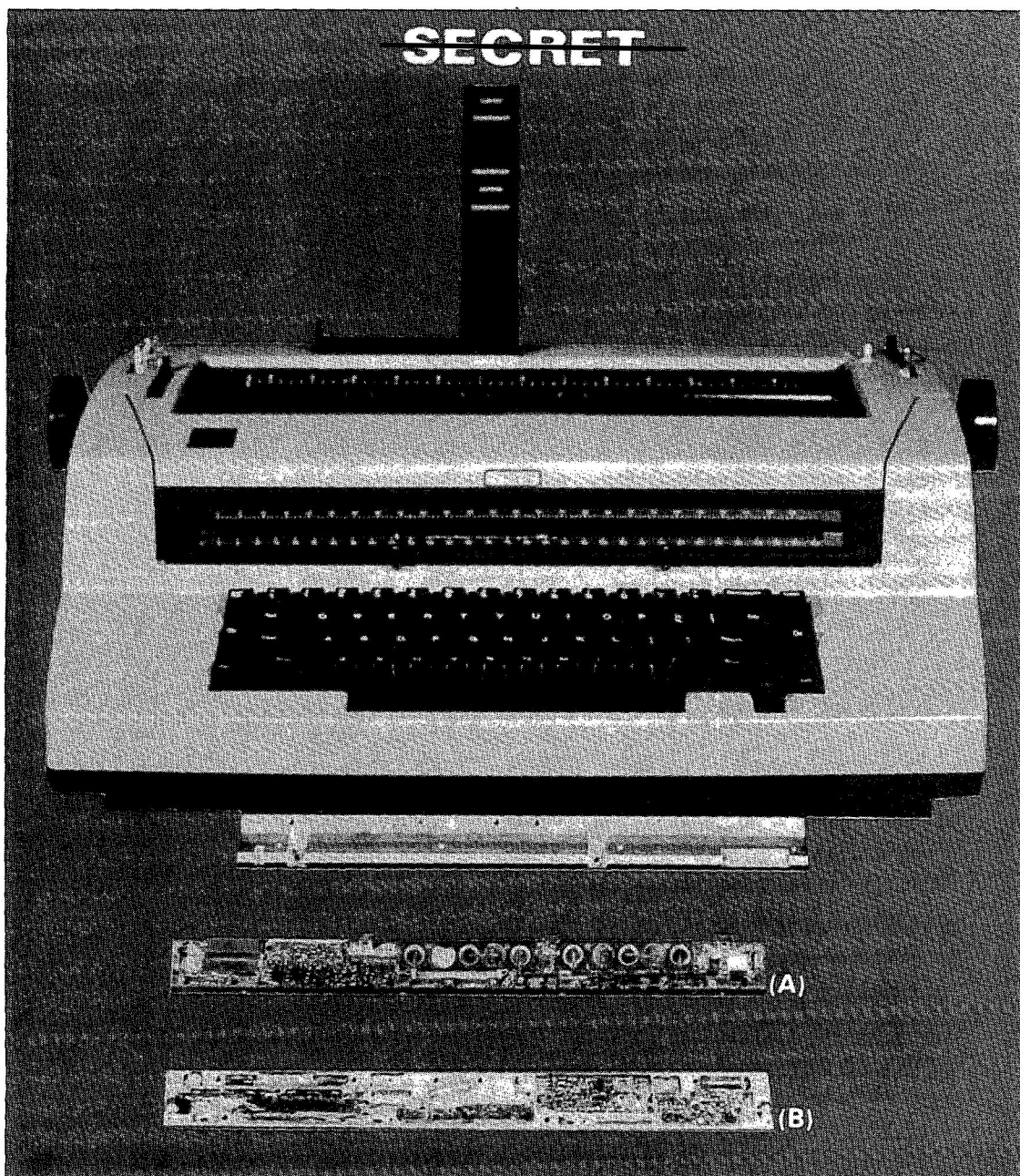
~~(S)~~ Bugged typewriters had been used in the deputy chief of missions office in Moscow, by the consul general in Leningrad, and by the human rights officer. Others were in less sensitive areas, like the office of the agricultural attaché, but paradoxically it was that typewriter that yielded some of the best information. According to a KGB defector who had worked in the exploitation division of the KGB Sixteenth Directorate, the operation (which the Soviets dubbed Cornflower) produced a report containing the American negotiating position on a grain deal, and provided that information to Soviet negotiators before the next session.⁸

~~(TS)~~ NSA had additional information on the Soviet project. In 1978 NSA people had discovered a large antenna attached to a chimney in the south wing of the embassy. It was cut for 60 and 90 MHz, but had no known function. The bugged typewriters emanated on 60 and 90 MHz. The batteries in the typewriters were dated 1976 and 1979.⁹ The entire thing amounted to a major penetration of the embassy.

(U//~~FOUO~~) Back in Washington, Wobensmith, backed up by an FBI representative, briefed President Reagan about the Moscow embassy situation. Wobensmith concluded that the intelligence areas on the top two floors were probably the only areas that had not been penetrated. Although the president was supportive, NSA received little cooperation from State Department below the Shultz-Eagleburger level. The ambassador was

TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~



~~(S)~~ One of the Gunman typewriters. Under it is the bar, both assembled and disassembled to show the embedded electronics.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

reluctant to accept the Gunman discovery, and actions at the State Department end proceeded very slowly until the matter came to the attention of the press. In 1985, Walter Deeley was asked about State Department cooperation. In a statement uncharacteristically low-key, Deeley replied: "I guess I can tell you the bureaucracy was opposed to any operation in there."¹⁰ This visit began the eventual unraveling of the State Department defense of its own security practices, and it led eventually to the decision not to accept the new embassy building in downtown Moscow, an imbroglio with the Soviets that stretched well beyond the time frame of the Cold War.

~~(TS)~~ The 1982 survey and the Gunman revelations got NSA directly involved in Moscow embassy security. NSA began providing support for the joint CIA-State NOB project in the form of sending technically trained people for ninety-day TDYs to monitor the Soviet workers. NSA's technical security and penetration people from R9 also began sending technicians for high-level support. Earlier, NSA had begun providing its own people PCS to Moscow [REDACTED]

[REDACTED] As time went on, NSA became one of the most vociferous opponents of allowing Soviet nationals access to any parts of the embassy, pressing instead for the hiring of Americans. These demands were strengthened by the 1987 revelations that two Marine guards, Clayton Lonetree and Arnold Bracy, had been allowing Soviets access to sensitive embassy spaces.¹¹

~~(S)~~ Probably no diplomatic problem was ever subjected to as many high-level investigative panels as the Moscow embassy. In 1985 The Reagan administration halted construction of the NOB and barred Soviet workers from the site. A panel headed by former NSA director Bobby Inman looked at embassy security worldwide, with special reference to the problems in Moscow. Inman was especially critical of the way State handled technical security issues. Two years later former Secretary of Defense Melvin Laird specifically examined the situation in Moscow. That same year a team of technical experts called the "Jason Panel" subjected the existing embassy, as well as the new building, to tomographic examination techniques, and concluded that both were completely penetrated. On the heels of the Jason Panel was a report by a committee headed by former DCI James Schlesinger recommending that the U.S. demolish the top three floors of the NOB [REDACTED]

[REDACTED] Finally, the PFIAB subjected the much-examined Moscow embassy to its own microscope and made recommendations concerning the improvement of the administrative arrangements for embassy security.¹²

~~(S)~~ NSA recommended a "tiger team" approach to fixing the problems. The NSA plan would have established an interagency Protective Security Engineering and Evaluation Center that would monitor the situation and devise new solutions. It would need seventy-six people and just over \$28 million per year. The proposal got active NSC support but opposition from State Department. After a long bureaucratic wrangle, it died. In the process, however, NSA's technical expertise in the detection of bugs had become generally recognized within and outside of government, and it was considered essential that

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

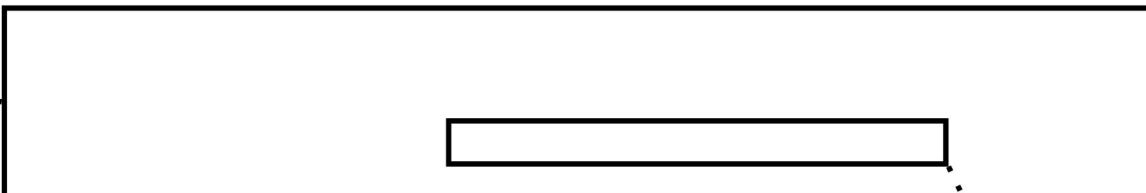
expertise be employed in diplomatic protection. NSA's insistence on employing only Americans received full support. When the federal government set up new administrative arrangements for embassy security, NSA was asked to send representatives to virtually every organization. It was a mission that was a natural outgrowth of the Agency's expertise.¹³

(U) The technical penetration of the embassy had long-term effects on the way Americans did business in Moscow. Buildings were considered penetrated until proven otherwise. According to historian Michael Beschloss, in the late 1980s Ambassador Jack Matlock refused to type out messages on electric typewriters, assuming that the impulses would go straight to the KGB. He wrote his drafts in longhand.¹⁴

(U) PRIME

(U) From January of 1984 to the spring of 1987, twenty-eight people, almost all of them Americans, were accused of espionage against the United States. One slipped out of the grasp of the FBI, but the rest were arrested. Twenty-one pleaded guilty, and almost all received lengthy prison sentences. Of the seven remaining, all went to trial, and six were convicted. There were probably others who were never caught.¹⁵

(U) The first spy was not an American. He was Geoffrey Prime, a British linguist who worked for GCHQ from 1964 to 1977. Prime's case was of major importance to cryptology.



EO 1.4.(b)

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~~~(TS//SI)~~ Returning to London, [REDACTED]

[REDACTED]

But amazingly enough, he was at the time out of touch with the KGB, and apparently did not report to them again until 1980. Even then the KGB seemed slow to recognize what they had, and it was not until the following year, 1981, that they got a knowledgeable interrogator to debrief Prime on the operations.¹⁷

(U) But by that time Geoffrey Prime was no longer "in the know." He had resigned from GCHQ in 1977 without informing his Russian handlers. Prime seems to have become uninterested in both GCHQ and espionage and simply drifted away from the work. His official reason for leaving was a dislike of lecturing, but that was a comparatively small part of his job. He did not like to supervise, and he did not get along with computers. The KGB did little to keep him engaged. GCHQ speculated in later years that Prime may have become tired of the mental stress of spying, and his private life was in a state of turmoil during the later 1970s. But no one really knew why he quit.

(U) Prime was finally uncovered as a result of an investigation into allegations of a bizarre sex life, including pederasty. But the sex allegations eventually spread into espionage, and Prime pleaded guilty to both. In January of 1982 he was sentenced to three years on sex charges and thirty-six years for espionage.¹⁸

~~(TS//SI)~~ NSA and GCHQ spent a great deal of time trying to piece together the damage done by Geoffrey Prime. Initially it appeared to be very severe. What Prime knew could have exposed [REDACTED] exploitation, and other things. But when NSA began comparing the losses in those areas against the dates when Prime was known to have been in contact with the KGB, it was apparent that much of the information came from other sources. In fact, Prime had a very narrow career path, and had very superficial knowledge about many of the things that the Soviets would have been most interested in. The most potentially damaging revelations related to [REDACTED] exploitation, but Prime probably had only the haziest understanding of [REDACTED] the attack on Soviet communications. Moreover, he would have been in a position to pass that information on only in 1981. By that time, the KGB had a better source.¹⁹

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~**(U) PELTON**

(U) On January 14, 1980, FBI surveillance recorded the following telephone call made to the Soviet embassy in Washington:

First person: May I know who is calling?

Caller: I would not like to use my name if it's all right for the moment.

First person: Hold on, please. Sir?

Caller: Yes, um.

First person: Hold the line, please.

Caller: All right

Second person: Hello, sir,

Caller: Ah, yes. I would---

Second person: Ah, Vladimir Sorokin speaking. My name is Vladimir.

Caller: Vladimir. Yes. Ah, I have, ah, I don't like to talk on the telephone.

Sorokin: I see.

Caller: Ah, I have something I would like to discuss with you I think that would be very interesting to you.

Sorokin: Uh-huh, uh-huh.

Caller: Is there any way to do so, in, ah, confidence or in privacy?

Sorokin: I see....

Caller: I come from - I, I, I am in, with the United States government.

Sorokin: Ah, huh, United States government....Maybe you can visit.

(U) A meeting was set up for the next evening, when it would be dark. But at 2:32 the next afternoon the caller phoned the embassy and said he would be there in two minutes, and abruptly entered the embassy. FBI surveillance was caught off guard, and managed only to get a picture of the mystery caller's back as he darted into the embassy grounds.²⁰

(U) When the caller walked in, he was interviewed by the duty officer, who also happened to be a KGB colonel, Vitaly Yurchenko. Yurchenko did not know who he was dealing with, and the interview proceeded gingerly, until the caller pulled out an NSA Personnel Summary and began discussing highly sensitive operations to tap a Soviet cable running under the Sea of Okhotsk from the Kamchatka Peninsula to the vicinity of Vladivostok. The mood changed abruptly. Yurchenko did not know enough about the technical aspects of NSA's work to proceed further, but he knew that he had a very valuable potential defector. He made elaborate arrangements to get the caller out of the

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

embassy disguised as a Soviet workman, gave him \$500 and instructions on how to establish the next contact.²¹ Yurchenko never saw him again.

(U//~~FOUO~~) Five years later, the same Vitaly Yurchenko appeared in Washington once again, but this time as a KGB defector. During the initial interrogations Yurchenko recalled the conversation with the mystery caller, whom he (Yurchenko) identified as a former NSA employee. On August 4, [] from NSA's counterintelligence section got a call from an FBI contact alerting him to Yurchenko's allegations. But Yurchenko had not been the handler and knew the mystery caller only by his KGB codename, "Long."



(U) Vitaly Yurchenko

(~~TS//SI~~) NSA had to find out who Long was. It did not seem difficult on the surface, given the fact that the undersea tap operation, called Ivy Bells, had been known to only a few employees. But the initial list had 954 names. Slowly they winnowed the list, slicing off names still employed at NSA. [] interviewed Yurchenko himself to iron out rough spots in the story and to get a better description of Long. Finally they had a list of twelve people whom they could not definitely eliminate. They also began looking for [] the phone calls, dates then unknown. They played candidate tapes for Yurchenko, who finally heard a voice that he recognized. Yurchenko identified the voice on January 14 and 15, 1980, as belonging to Long.

(U//~~FOUO~~) Now NSA counterintelligence had a tape of the voice they were pretty sure belonged to Long, and they had been able to narrow down the candidates for the match to only twelve people. They then worked up a list of some 500 supervisors who might remember one or more of the twelve, and began calling them in to listen to the tapes. The fourth person who listened to the tapes said that he believed the voice to be that of one Ronald W. Pelton. NSA obtained an old photo of Pelton, and on October 20 Yurchenko identified it as that of Long.²²

(~~S//SI~~) Ron Pelton, then forty-five years old, had come into the cryptologic business in June of 1960, as a USAFSS Russian language intercept operator. After four years in the Air Force, he converted to an NSA civilian billet. Through his years with NSA, Pelton had become identified with collection technology and collection management. He had participated in some of NSA's most sensitive collection projects, but gradually drifted into jobs associated with cryptanalysis. By 1979 he was a very highly regarded staff officer

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

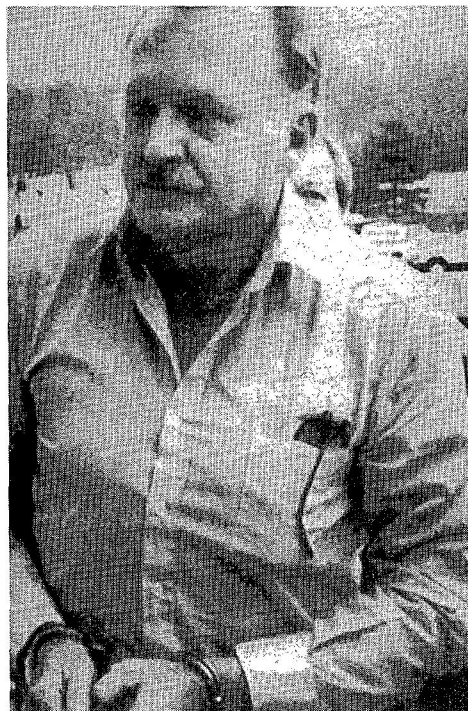
PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

with A5, the office of Soviet cipher systems. Pelton had, in fact, written the manual describing those systems. He had served as a staff member on the Wagner Committee, which had worked on plans for Bauded Signals Upgrade. Given his grade level (GS-12), it was hard to imagine a more damaging defector.²³

(U) Pelton possessed a nearly photographic memory and a gift of gab which marked him as a rising star in A5. But unknown to his management chain, he had also been operating on the margins of financial ruin. In the early 1970s he decided to house his family in surroundings more appropriate to his idea of his status. Without proper funding, he began building a large house on a five-acre tract in rural Howard County, Maryland, doing the work himself as he could scrounge the materials. Meanwhile, his family lived in squalor, awaiting the grand dwelling. But Pelton soon ran into financial difficulty, and in April of 1979 he filed for bankruptcy. He resigned from NSA the following July, evidently to improve his financial condition. Outside of NSA, Pelton failed at everything he tried, and without a regular paycheck his condition sank further. He tried marketing a product that was supposed to improve automobile gas mileage, but it didn't work, and he drifted from job to job in retail sales.²⁴



(U) Ronald Pelton

(U) On October 23, 1985, just three days after his voice was identified on the tape, the FBI found Pelton living in an apartment in downtown Washington and working as a boat and RV salesman for Safford Yacht Sales in Annapolis. Previously religious and abstemious, he had undergone a complete personality change. He and his wife since 1961 were divorced, and Pelton was living with another woman. Financially, Pelton was doing better than at any time since his resignation from NSA, but the FBI quickly discovered that the two drank heavily and were deeply into drugs. They could be observed on frequent drug buys.²⁵ The FBI initiated twenty-four-hour surveillance.

(U) Yurchenko's information was old, and no one was sure if Pelton was still passing information to the Soviets. Then on November 4 Yurchenko redefected to the Soviet Union, and the FBI lost its only witness, were they to arrest Pelton and bring him to trial. Not only had they lost Yurchenko, but they had recently let former CIA agent and Soviet spy Edward Lee Howard slip through surveillance to escape to the USSR. With

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Yurchenko and Howard gone, could Pelton be far behind? The FBI threw a virtual blanket over Pelton – at one point over 200 agents were involved in the surveillance.²⁶

(U) David Faulkner, the FBI agent in charge of the case, was afraid Pelton would flee the country, but had no evidence to hold him, unless Pelton himself gave it to them. Wiretaps (authorized by the Foreign Intelligence Surveillance Court) showed that Pelton and his girlfriend, Ann Barry, were into alcohol and drugs, and FBI investigations showed that he had embezzled \$50,000 from the yacht sales company where he worked. But there was no evidence of contact with the USSR. So Faulkner, after a thorough workup on Pelton's character and personality, decided on a risky strategy. He rented rooms at the Annapolis Hilton and set one of them up as an interrogation room for him, Pelton, and a second agent Dudley "Butch" Hodgson. Then, at 0930 on Sunday, November 24, Faulkner called Pelton, who was at the yacht company office, identified himself, and asked Pelton to come to the hotel to talk to him on a matter of "extreme urgency" involving sensitive national security.

(U) Once Pelton was in the room, Faulkner proceeded to detail the life of a hypothetical person, who clearly was Pelton himself. The two FBI agents also played the tape of the phone calls to the Soviet embassy in 1980. Pelton immediately understood that the FBI knew all about his espionage, but seemed to think that they wanted him to become a double agent. So, declining the offer to have a lawyer present, he proceeded to try to talk his way out of it, admitting obliquely that the person that Faulkner and Hodgson sketched was really himself. He admitted a lot – contacts with Soviets, trips to Vienna, payments of \$35,000 plus expense money, all to secure the FBI's "cooperation."²⁷

(U) By the end of the interview, Pelton so trusted the two agents that he gave up his passport to them and was permitted to go back to his apartment in Washington. But that evening Faulkner again called Pelton, who was by this time at the apartment, and asked him to come back for more questions. During this second interrogation in Annapolis, Pelton placed an X on a map showing where the undersea cable tap was. (His mark was off by a considerable distance.) Once Pelton admitted that what he had done would damage the United States (a key element in the evidentiary chain), Faulkner and Hodgson gave Pelton a waiver of rights, which he signed. Once they had his signature, they arrested him.²⁸

(U) Pelton's "confession" told the FBI that he had several contacts with the Soviets in Washington and had met KGB interrogators at the Soviet embassy in Vienna, Austria, twice: once in 1980 and once in 1983. A third trip was planned in October of 1985, but Pelton missed his contact in Virginia in September, and made no further contact with the Soviets. In fact, by the time of his arrest he was trying to avoid them.²⁹

~~(TS//SI-UMBRA)~~ His first Vienna meeting had been very thorough, consisting of some forty-four hours of debriefing, but it was conducted by people who had no expertise in cryptology and was less productive. The 1983 meeting was conducted by a KGB handler who, although not an expert in cryptology, was highly skilled at interrogation. This time there was very little that Pelton did not tell them about his job. He laid out the entire NSA

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) Throughout, Pelton had been unhappy with the amount of his KGB payments, and he tried to drop contact following each meeting. He initially demanded \$400,000, but in the end settled for \$35,000 spread over five years. For him, spying was not very lucrative.³⁰

(U) Ronald Pelton was the first spy that NSA took to court. In pretrial negotiations NSA worked gingerly toward a plea bargain, which was how all previous espionage cases had been resolved. But Pelton's defense lawyer, Fred Warren Bennett (who had also defended John Walker earlier in the year; see page 420) advised Pelton to hang tough and go to trial. Bennett expected that the "confession," consisting of unrecorded admissions to two FBI agents in a hotel room, would be thrown out. Without it, the government didn't have a case.³¹

~~(TS//SI)~~ The trial was scheduled to begin on May 27, 1986. Preparations were lengthy and elaborate. The government had to establish the sensitivity and fragility of SIGINT, and had to reveal in open court SIGINT of value that Pelton had revealed to the Soviets. The Agency decided to put William Crowell, the chief of A Group, on the stand to tell the jury about SIGINT. The "SIGINT of value" would be the Ivy Bells project. The FBI had the map that Pelton had used to designate the undersea tap. Crowell would have to reveal to the jury that the Soviet Union was a SIGINT target (a first admission) and would have to produce the map showing the location that Pelton had designated to the Soviets. After the introductory course on SIGINT, the revelation of the project would be dramatic enough to convince them of the seriousness of Pelton's espionage. The Agency was determined, at all costs, to hold the line at that point – nothing further on Ivy Bells, nothing about the intercept systems used against the Soviet targets, and certainly nothing about the attack on Soviet cipher systems. It was a risky strategy that could easily have led to the revelation of more sensitive information in open



(U) William Crowell

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

court. The very idea of having someone as knowledgeable as Crowell testify in open court sparked controversy within NSA. The director, General Odom, issued a memo to all personnel explaining that the information revealed at trial would be a one-time affair and that classification guidelines would not be changed as a result.³²

(U) The strategy worked. The judge allowed FBI agents to testify about Pelton's admissions in the hotel room, even though they did not amount to a signed confession. Crowell's testimony and cross-examination did not result in damaging revelations beyond those already agreed upon. In the end, the jury convicted Pelton on four of the six counts. Sentencing was left to the judge.³³

(U//FOUO) The trial was followed by a long interval before sentencing, agreed to in order to debrief Pelton on what he had told the Soviets. The carrot was the sentence: if he cooperated, the government would ask for a lighter sentence. The debriefing was done in a

It lasted from July to December, and was excruciating. Without documents, it was a matter of dredging through Pelton's memory. At one point the interrogators employed a virtual hypnosis technique to get him to recall as much as possible. In the early stages, Pelton lied, but when confronted with the results of a polygraph showing deception, he eventually made a clean breast of things. NSA came away with information that it would never have thought to ask Pelton. One of the most jolting was the revelation that, before going to the Soviets, Pelton had tried to sell his wares to muckraking journalist Jack Anderson. Anderson took the information and published it, but never paid Pelton. Desperate for cash, Pelton then decided to contact the Soviets.

(U) At the sentencing, the FBI indicated that Pelton had cooperated. But it wasn't sufficient. An outraged judge gave him the maximum sentence on all counts - three consecutive life terms plus ten years.³⁴ He was remanded to Lewisburg Penitentiary in Pennsylvania.

~~(TS//SI//UMBRA)~~ Ronald Pelton was the most damaging cryptologic spy since William Weisband in the 1940s. He handed the Soviets everything he knew about the NSA attack

In his classified declaration prior to trial, General Odom said, "Disclosure...provides the Soviet Union with a virtual tutorial on U.S. signals intelligence capabilities"

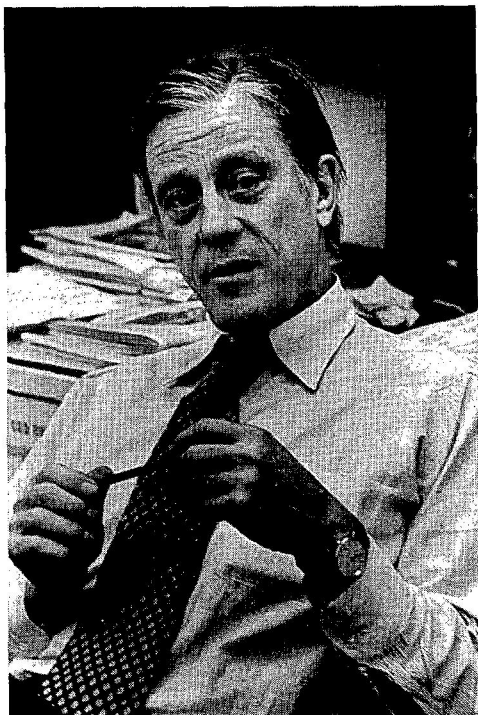
It was a devastating blow, far exceeding anything that other, more famous spies like Aldrich Ames later gave to the Soviets.

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1

(U//FOUO) But to the public Pelton was a minor spy, and today few Americans even remember who he was. This curious twist resulted partly from Pelton's own personality. He came across as a buffoon – haggard, stubbly chin, hang-dog expression. The press constantly referred to him as a minor functionary at a relatively low salary level, as if this somehow separated him from truly sensitive information. NSA's trial strategy worked to perfection, revealing just enough to convict without getting into the avalanche of more sensitive material that he also sold to the Soviets. The real story of the Pelton incident was the amount of information that did not come out.³⁶



(U) Benjamin Bradlee

(U) The Pelton trial eventually became notorious for a sideshow – the Ivy Bells incident. This bizarre story overshadowed the trial itself, and became a cause célèbre on the issue of First Amendment rights.

(U) It began in December of 1985, soon after Pelton was arraigned in federal court in Baltimore. An alert newspaper reporter heard the name "Ivy Bells" being introduced by the defense lawyer, and it appeared in the newspapers the next day. An even more alert *Washington Post* reporter, Bob Woodward, picked up the reference and went to his editor, Benjamin Bradlee, with a proposal that the *Post* publish a story on Ivy Bells, an operation that Woodward had been tracking for years through his collection of various bits of journalistic exposé. But instead of approving the article for publication, Bradlee called the federal government.

~~(TS//SI UMBRA)~~ The first meeting took place in the offices of the intelligence community staff on F Street in downtown Washington, on December 5. Bradlee attended, in company with Len Downie (the managing editor) and his lawyers. The principal for the government was General Odom, along with his own lawyer, Elizabeth Rindskopf, and the director of naval intelligence, Admiral Richard Haver. Bradlee outlined the story that Woodward had put together, and said that, since Pelton had told the Soviets all about the cable tapping operation, he could see no damage to national security. Odom replied that many aspects of the operation were not known to the Soviets and that publication could result in severe damage to national security. Bradlee scoffed at this and gave to the government team a synopsis of previous publications relating to this very program and similar underwater SIGINT operations, beginning with a *New York Times* article by Seymour Hersh in 1975, during the Church and Pike Committee hearings. Admiral Haver later summarized Bradlee's charge: "All of this indicates that the security of very

TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

sensitive information with the U.S. government is very poor, a fact that Mr. Bradlee finds most disturbing." But Rindskopf assured the *Post* that NSA did not intend to use Ivy Bells at trial except in a very general sense, and Bradlee agreed to withhold publication, at least until he could examine the trial transcript to see how much information the government revealed. Odom remarked later about Bradlee that "I found his behavior in that situation beyond reproach." And so the immediate threat receded.³⁷

(U) But the story "had legs," as journalists like to say. The next April, with trial about to begin, Woodward put together a story on the Ivy Bells operation that would run concurrent with the trial. Scheduled to run on May 4, its publication was once again delayed after William Casey called Bradlee to protest. On the tenth, Ronald Reagan called *Post* publisher Katharine Graham, urging that portions of the article be deleted in the interest of national security. But he added ominously that, if the *Post* did not police itself, the Department of Justice might initiate prosecution under Section 798 of the criminal statute.

(U) The issue remained secret until later in May, when NBC released a rather general story on Ivy Bells. Casey stated publicly that he was considering recommending prosecution of NBC under Section 798. But with the story already out, the *Post* decided the time was ripe for its own story. A newspaper that had published *The Pentagon Papers* and the Watergate story, both under threat of retaliation by the Nixon administration, was not likely to back down in this case, but Bradlee ultimately agreed to delete details of the story. He later said that fear of prosecution did not faze him, but national security did. "In my heart, I think the Russians already know what we kept out of the story. But I'm not absolutely sure of that."³⁸

(U) Once again, Casey went to Justice with a request to prosecute and issued a public warning to news organizations not to publish "speculation" on sensitive national security issues. The warning related to material that was being revealed in the Pelton trial. But the DCI was out on his own limb. Justice Department lawyers were notoriously reluctant to prosecute news organizations in situations where first amendment rights could be at issue. In this case, they openly scoffed at the idea of prosecuting for "speculation."³⁹

(U) The Pelton trial occurred at the tail end of military operations against Libya resulting from the La Belle Discoteque bombing. Government leaks in that case led to threats by Casey and NSA director Odom to prosecute news organizations that published the leaks (see page 359). It also led the Reagan administration to threaten to polygraph everyone with access to "sensitive intelligence" (read primarily SIGINT), a threat that was derailed when Secretary of State George Shultz threatened to resign if anyone from his department were confronted with a demand to be polygraphed.⁴⁰ Senator David Durenburger of the SSCI examined the issue from both sides and cast a pox on both houses. The Reagan administration had been a notedly leaky ship and had to tighten up if it were to have any credibility in the courtroom when prosecuting news organizations. But, on the other hand, news media seemed to have taken the wraps off. "...for whatever reason, there is a growing sense that there is nothing which is not fair game."⁴¹

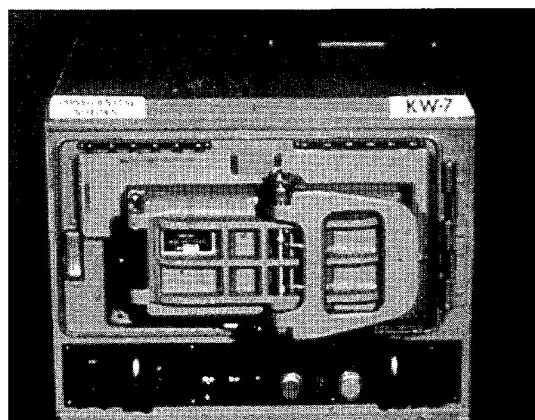
~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1**(U) WALKER**

~~(S)~~ In the late 1960s, the KGB created a new organization. Called the Sixteenth Department of the First Chief Directorate (foreign intelligence), it was set up specifically to recruit and handle foreign code clerks who could provide cryptographic information. NSA received information that the organization had twenty agents working full time on North Americans alone.

~~(S)~~ This could only mean that the Soviets had succeeded in recruiting Americans with access to cryptographic key and that U.S. military communications could no longer be considered secure. A high-level NSA study chaired by the head of COMSEC, David Boak, concluded that crypto key was highly vulnerable to compromise and that every effort should be put into better key security. At the time, NSA did not even know about John Walker.⁴²

~~(S)~~ The findings of the Boak Committee dovetailed with other concerns about the intrinsic insecurity of naval communications. The U.S. Navy relied for communications security largely on a single device, the KW-7, and its sister, the KW-37. First deployed in 1963, the KW-7 was used to secure ship-to-shore, ship-to-ship and shore-to-ship communications throughout the Navy. The KW-37 was used in a broadcast mode for information that went to the entire fleet. NSA's concern was with over-use. The circuits involved transmitted information in staggering volumes, yet the Navy had established only two basic nets – the Atlantic and the Pacific. NSA discovered that when use exceeded a certain volume, the KW-7 and KW-37 could be vulnerable to cryptanalytic attack. To their horror, the COMSEC people at NSA found that the Navy routinely exceeded that volume by a factor of six. The information about the Sixteenth Department heightened the concern – its effort made no sense if they were not exploiting. NSA became very concerned about security of the circuits secured by the KW-7 and KW-37.⁴³

**(U) KW-7**

~~(S)~~ Fearing that the Navy would never change the employment of the KW-7, COMSEC technicians began designing a drop-in board that would protect the device even when used in the current volumes. They still didn't know about John Walker.⁴⁴

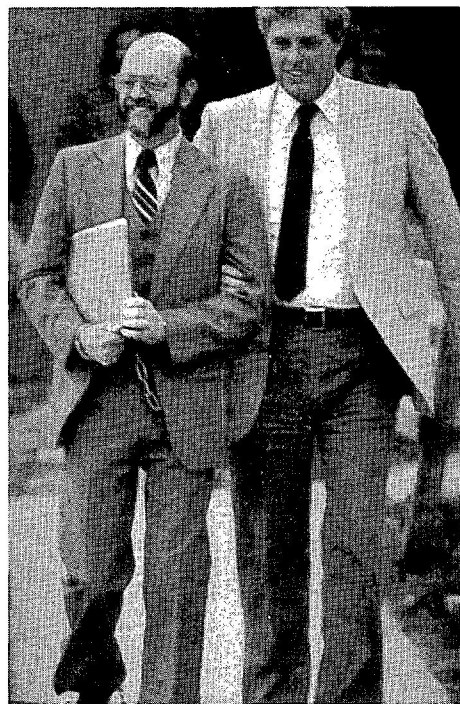
(U) In November of 1984, one Barbara Walker, then living in Maine, contacted the FBI about her ex-husband, John A. Walker, who was living in Virginia. John, she alleged, was a spy. Barbara Walker was an admitted alcoholic, and the FBI initially did nothing about her charges. But agents in the Norfolk office took her charges more seriously, and retrieved Walker's personnel file from the Navy. It was written in almost unintelligible

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Navy personnel language, and they needed an interpreter. The agent in charge of counterintelligence investigations in Norfolk had recently collaborated with a threat analysis office in NSA's COMSEC organization. He called his contacts at NSA and asked them to look at the Walker file. NSA's conclusion that, if Walker were a spy, the United States had a big problem. John Walker had had access to a huge number of cryptographic keys and equipments.

(U) The Bureau opened a full field investigation and got a court order to tap his phones. For some weeks it seemed that they were running aground, but then he began talking about an important meeting in the Washington suburbs. On the assumption that he would be going to a dead drop, the FBI deployed a huge tracking team.



(U) John Walker (on left)



(U) Drop point

(U) On May 19, Walker drove north on I-95 to the Maryland suburbs of Washington. Once there, he proceeded along a serpentine route that had him driving to and fro for hours (the FBI estimated that the full route would have taken four hours) to the drop location on a country road outside of Poolesville, Maryland. There, just after 8:30 in the evening, by a telephone pole with a "No Hunting" sign on it, he deposited a package containing classified material. The FBI swooped down and picked it up as soon as he was out of sight. But when he proceeded to the Soviet drop location, there was no package there (which would have contained the Soviet payments for Walker's previous drop material). Puzzled, he drove back to his own drop location, which was the alternate location

for the Soviet material. He found neither the Soviet payment nor the package he had so recently deposited there. He drove back and forth between the two locations several times, checking and rechecking. Then, puzzled and suspicious, he returned to his motel, a Ramada Inn in Rockville, Maryland, which he reached just before midnight.⁴⁵

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

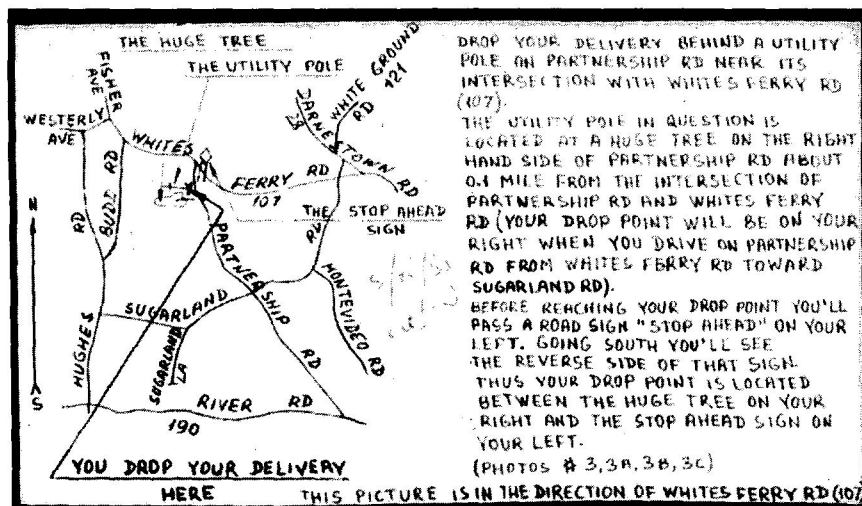
~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

(U) At 3:30 A.M., an FBI agent posing as a motel desk clerk phoned Walker's room to tell him that his car had been hit and damaged and that he was needed downstairs. As Walker left the room he was confronted by two FBI agents. In the confrontation, all three drew their weapons - Walker dropped his first. The Bureau had just bagged the most damaging spy in American history.⁴⁶



(U) KGB agent's map for Walker

(U) Detailed map

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

(U) Walker became Walkers, with Whitworth thrown in. It was not just a spy – it was an entire ring. Walker, a comm center operator and crypto technician when he had been in the Navy, had been supplying crypto key to the Soviets since 1968. Walker had recruited Jerry Whitworth, another Navy man in the same line of work, and when John Walker retired from the Navy in 1976, Whitworth continued to provide crypto material to Walker, who passed it on to the Soviets. He had recruited his brother, Arthur, and his son, Michael, and when arrested, John Walker was attempting to pass documents stolen from the Navy by Michael. The Walker ring had passed operational and technical documents to the Soviets. But more important, they had supplied crypto key for the KW-7, as well as several other devices, including the KW-37, KL-47, and KG-13.⁴⁷

(U) The Walker operation was built around supplying used KW-7 key. Once a key had expired, the crypto security person (i.e., Walker) had seventy-two hours to destroy it. Walker (or Whitworth as the case may be) simply copied the key cards before destroying. Periodically (generally a matter of months), Walker would give the copied key cards to a Soviet agent using the dead drop procedure.

But in January of 1968, the same month that Walker first contacted the Soviets, the North Koreans captured the *Pueblo*, with a working KW-7 aboard. Though there is no direct evidence, there is ample indirect evidence that the KW-7 was sent to a research center south of Moscow, where it was presumably employed to read the taped messages once the Walker-supplied keys reached the Soviet Union. It was hardly a real-time operation, but from a long-term standpoint it was almost certainly the most lucrative espionage operation the Soviets ever had.⁴⁸

(S) The Soviet operation of the Walker ring was a textbook in how to handle an espionage ring. They assigned only their very best KGB agents to the case. These agents went to unprecedented lengths to keep the operation from exposure, and the instructions that Walker received to dead drop operations were breathtakingly detailed and precise. The FBI believed that at any given time, only three people in the Soviet embassy in Washington were cleared for the operation. In Moscow, only the agents supervising the operation and a few top KGB officials were in on the secret.⁴⁹

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~EO 1.4.(c)
PL 86-36/50 USC 3605

[redacted] An expert witness testified at Jerry Whitworth's trial that "the damage thus done [by the Walker ring] could significantly, if not irrevocably, tilt the very strategic balance on which our survival as a nation depends."⁵⁰

—(S) NSG units used different keys, and since no one in the Walker ring was SI-cleared, it was unlikely that any cryptologic communications were being read. However, the Soviets did get information on other intelligence operations. The Navy's SOSUS array, used to track Soviet submarines, was probably compromised. [redacted]

[redacted] And finally, after frequent denials, Walker admitted providing key for tactical voice systems such as Nestor (KY-8/28/38), used in the Vietnam theater. Almost anything could have been passed on these nets, but they were used, for the most part, for operational information.⁵¹

—(S) Processing the take that was potentially available would have strained the resources of the best espionage organization. Vitaly Yurchenko claimed that the KGB had "thousands" of people exploiting the material, and decrypted over a million messages, but this has never been confirmed. In 1994 a Russian HUMINT source who said he headed the exploitation effort claimed that his organization had only twenty-five people, and that daily production was low. He knew nothing of any other exploitation group. It is possible that only a fraction of the available material was exploited because of the inefficiencies inherent in the Soviet bureaucracy.⁵²

—(S) The Walker case brought a good many communications security deficiencies into sharp focus. Most basic was the lack of control of crypto keys, and the case resulted in a decision in 1988 to emphasize two-person control. It also brought about demands that electronic keying programs be accelerated. NSA became more insistent that the Navy reduce traffic volumes on individual nets, and quickened the pace of KW-7 modifications to surmount the crypto vulnerabilities that had been discovered earlier. NSA promised to accelerate the replacement of older crypto models with the new KG-84, which was capable of electronic keying. Meanwhile, the Navy broke up its nets into a four-ocean navy concept, and began [redacted]

(U) These reforms were uncontroversial and relatively speedily accomplished. More divisive was the demand that the use of the polygraph be broadened. This reform was already being implemented within the military population at NSA when the Walker ring was exposed. But it undoubtedly reduced opposition to the polygraph in the wider armed services. NSA's Walter Deeley, the chief of Communications Security at NSA, informed the SSCI that he was reinstituting the crypto clearance, with its requirement for a non-lifestyle polygraph. His determination to force this despite doubt about his authority to do it on his own drew chuckles of admiration from the senators.⁵³

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

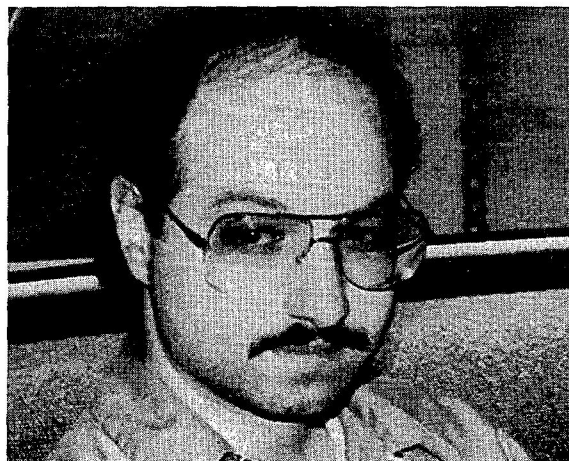
~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) John Walker, the principal villain in the story, was paid over a million dollars by the Soviets. Jerry Whitworth received about \$400,000, while the others received considerably lesser amounts. It is thus paradoxical that John Walker himself did not receive the longest prison sentence. In the days before his trial was to begin, he plea bargained to two concurrent life sentences plus ten years. Under the impenetrable mysteries of the federal sentencing guidelines, this means that he could theoretically get out of jail by age 75. His son pleaded guilty at the same time and received a twenty-five year sentence. Both agreed to cooperate with federal prosecutors.

(U) John Walker's cooperation was most unhelpful to his former friend and compatriot Jerry Whitworth. Whitworth, receiving decidedly bad advice from a coterie of San Francisco lawyers, chose to go to court. Walker testified at Whitworth's trial and was a key factor in Whitworth's sentence of 365 years in prison and a \$410,000 fine. Jerry Whitworth will die in prison.⁵⁴

(U) POLLARD

(U) In September of 1979 the Navy hired a young Stanford graduate named Jonathan Jay Pollard to be an intelligence research specialist. Pollard was assigned to the Naval Intelligence Support Center (NISC) in Suitland, Maryland, where he was given a set of special clearances that would permit him to go to work. Included was access to SIGINT material.⁵⁵



(U) Jonathan Pollard

(U) In 1984 Pollard made contact with Israeli intelligence. He showed them samples of what he could provide, and they were interested. A flurry of meetings ensued, including trips to Paris and Israel. One of his contacts was Rafael Eitan, a legendary Mossad agent who had masterminded the capture of Adolf Eichmann and had headed the vengeance squad that tracked down and killed Palestinians who had participated in the 1972 Munich Olympics affair. Clearly, Pollard was regarded as a potential star in the espionage world.⁵⁶

(U) Pollard was assigned to the antiterrorism alert center at NISC. His routine duties would thus give him access to information that Israel was interested in. But Pollard didn't stop at passive collection. He took a "shopping list" of desired information from his handlers and scanned DIA's computer databases for "hits." When he found something that

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

looked interesting, he simply asked the relevant office for the document. He was rarely refused.

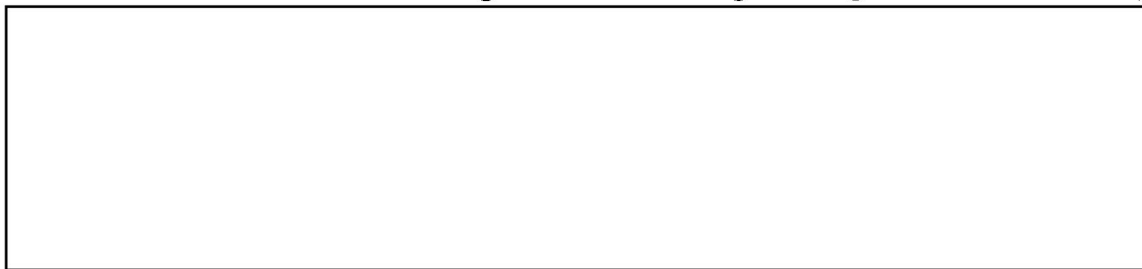
(U) He accumulated documents quickly, and three times a week he put them into a briefcase and, using his courier pass, simply walked out with them. He batched the documents and once a week delivered them to a handler in a safe house in downtown Washington, D.C., not far from where Ronald Pelton lived. (They lived so close, in fact, that Pelton's girl friend noted surveillance, but decided that it was unrelated. It was FBI surveillance of Pollard.) There, the accountable documents would be copied so that Pollard could return the original; the rest they would not bother to copy. Once a month, Pollard made contact with his main handler, Joseph Yagur, who would evaluate the month's take and pay Pollard.⁵⁷

(U) In September of 1985, Pollard's commanding officer at NISC, Commander Jerry Agee, learned that Pollard's computer searches had included excursions into some material unrelated to his job. Agee directed that a close watch be placed on Pollard. On October 25, a coworker reported to Agee that Pollard had apparently walked out of the building with classified documents. Surveillance of his activities became intense. A computer check showed that Pollard had acquired a huge number of documents on the Middle East, and a surreptitious search of his work spaces turned up none of them. At this point Agee called in Naval Investigative Service and the FBI.

(U) The net closed on Monday, November 18. Pollard was arrested trying to leave NISC in his Mustang with a satchel full of classified documents. Interrogation continued off and on all week, as Pollard gradually admitted more and more facts about his espionage. On Thursday he tried to flee to the Israeli embassy but was refused admittance. The FBI finally arrested him outside the embassy. Pollard and his wife Anne, who was deeply involved in the espionage, were out of options. His handlers had fled the country, and Israel was disowning him. Naval and FBI agents had recovered large numbers of documents in his apartment. A full confession was in order.⁵⁸

(U) The Pollard arrest on November 21 came only three days before the arrest of Pelton and overlapped the exposure of the Walker ring. It heightened the sense of betrayal during the "Year of the Spy."

~~(TS//SI//UMBRA)~~ NSA found that most of the documents that Pollard turned over to Israel were SIGINT. His handlers seemed to place high value in this source, and he exposed to Israel much of what NSA was doing on Middle East targets. He gave them information



EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~(S//SI)~~ Mostly, though, the damage related to NSA's overall capabilities. The Israelis

(U) The Department of Justice legal team wanted to try Pollard, but State pleaded that the diplomatic embarrassment would be too great. Ultimately DOJ fashioned a plea bargain that worked. Jay Pollard pleaded guilty and was sentenced to life in prison. (But the terms of a life sentence have already allowed him to petition for parole, which has been denied.) In return, Anne Pollard was given only two concurrent five-year terms and is already out of jail. All along the Pollards maintained that their motivation was ideology. But they received \$2,500 in cash monthly, had \$30,000 per year going into a "retirement account," and were treated to lavish all-expense paid trips to Europe and flashy jewelry by their Israeli handlers. NSA counterintelligence people who got acquainted with Pollard through interrogation regarded him as venal and devious. In his plea bargain he and his wife agreed to cooperate with the government, but their true cooperation has always been suspect.⁶¹

(U) HALL

~~(S//SI)~~ James Hall, a young Army enlisted man, was assigned to INSCOM's Berlin site in 1983. Hall liked money, and in 1983 he contacted Soviet intelligence in Berlin. By this time he had become the Army's multichannel collection expert in Berlin, and he offered to share with the Soviets everything that he knew about the site and its mission. From February of 1983 to his reassignment to the U.S. in 1985, Hall did just that, in thirteen face-to-face meetings with his Soviet handlers, along with dead drops in various locations around Berlin.

(U) Prior to his reassignment, Hall had contacted an East German intelligence agent, Hussein Yildirim, who headed the post auto shop. In order to supplement his already substantial income, Hall agreed to provide East Germany the same information that he has giving the Soviets.

(U) During his year in the States, Hall continued to provide information to Yildirim, although the value was down because he was no longer associated with INSCOM. The Soviets also set up procedures for receiving Hall's information, but they were complex and difficult, and Hall chose to drop the association. Then, just a year later, he was back in Germany with 5th Corps and renewed his contacts with East Bloc intelligence. When he PCSed to Fort Stewart, Georgia, in 1988, he maintained contact with Yildirim, who moved to Florida to continue to work his contact with Hall. But by then the rigidities of the Cold

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

War were beginning to crack, and an East German source identified Hall as one of their agents.

(U) The FBI got Hall on a sting, in which one of their employees posed as a Soviet agent wanting to know what Hall had been providing to the East Germans. In a videotaped meeting Hall essentially confessed to espionage. He was arrested and is serving a forty-year sentence at Fort Leavenworth. Yildirim, arrested the day after Hall, is serving life without parole.⁶²

(U//~~FOUO~~) Hall provided the Soviets and East Germans with "tradecraft" information. For instance, he gave them the entire National SIGINT Requirements List, amounting to a comprehensive targeting manual for the SIGINT system. He provided fifty USSIDs on various aspects of operations and manuals describing the entire SIGINT system and how it functioned. In return, Hall took away somewhere between \$200,000 and \$400,000. He was definitely in it for the money.

(U) CARNEY

(U) In the spring of 1990, an East German source reported to the CIA that he had information on a penetration of NSA. It was an old lead; the spy had been active in the mid-1980s, but was no longer in the business. Still, it could be another Pelton case, and NSA's counterintelligence branch went after the lead. The information was fragmentary and conflicting, and it became bogged down. Then a second source identified the spy as one "Yens Carney." The FBI traced Yens Carney to one Jeffrey Martin Carney, a former Air Force German linguist then living in the Soviet sector of East Berlin.

~~(C)~~ Carney came from a difficult family background. He had dropped out of high school and had enlisted in the Air Force at seventeen. But he was extremely bright, and had been sent to German school, where he had gotten awards as the best German linguist in his class. From there he was sent to the ESC collection site at Marienfelde, West Germany in 1982. But he was in trouble almost immediately for missing a reporting situation in intercepted traffic, and he was decertified as a linguist. This began a downward spiral in his Air Force work relationship. Carney became argumentative and difficult on the job. He also realized that he was homosexual, which led to an identity crisis. In the midst of this turmoil, the immature Carney, then only nineteen, made a sudden decision to defect to East Germany, and went to Checkpoint Charlie, where he made contact with the other side. They, however, convinced him to spy, and he remained on the job.

(U) Carney began carrying a hidden camera in a Lipton Tea can. He collected miscellaneous documents while on burn detail and smuggled them out of the operations building. He met with his East German handlers every three weeks. In 1985 he PCSed to Goodfellow Air Force Base, where he continued to photograph documents. These he passed to his handlers during meetings in Berlin, Rio and Mexico City. But he became increasingly unstable and finally got his clearance pulled after an incident of uncontrolled

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

rage with his supervisors. At that point Carney defected to East Germany through Mexico City and Cuba (the same route that Martin and Mitchell had taken in 1961).

(U) He became a driver on the U-Bahn (Berlin's subway system) while continuing to work for East German intelligence. But he was in the wrong country. After the fall of the Berlin Wall it was not impossible to arrest spies, and Carney was arrested in April of 1991 outside his apartment. Brought back to the U.S. to stand espionage charges, he plea bargained for a twenty-five year sentence in exchange for his cooperation. He was debriefed, and NSA got a good picture of the damage. Fortunately, it was much less than it would have been had Carney worked within NSA.⁶³

(U) Hall and Carney were bookend spies. They were both active in Berlin at the same time, one working in ASA, the other in ESC. They also worked for East German intelligence, although Hall passed information to the Soviets, too. Although neither had high-level information, between the two of them there was nothing the East Bloc did not know about U.S. SIGINT in Berlin.

(U) THE PUZZLE PALACE

(U) The 1982 publication of a book about NSA, *The Puzzle Palace*, by James Bamford, brought a new focus to the efforts of journalists and independent writers to break down the Agency's vaunted anonymity. *The Puzzle Palace* became the most significant breach in NSA's anonymity since David Kahn's *The Codebreakers* in 1967.

(U) As a former NSG enlisted man, Bamford had participated directly in the cryptologic process. While still in the Navy he had volunteered to help the Church Committee during its 1975 investigations. The late 1970s found him out of the Navy and working in Boston as a part-time private detective. He had gone to law school, but had not taken (or had not passed) the bar exam. In 1979 he approached publisher Houghton-Mifflin with a proposal to do a book on NSA. The publisher accepted and gave him a \$7,500 advance.⁶⁴

(U) Bamford proposed a comprehensive description and history of the Agency, a task that had never been attempted. Public Law 86-36 had served as a useful barrier against this type of research, but Bamford proved to be cleverer than others. He began with a barrage of requests for information under the Freedom of Information Act (FOIA). Through this and a lot of poking through publicly available information, he accumulated a small but useful stack of documents. Then he hit the Mother Lode – a collection of documents that William Friedman had deposited at the George Marshall Library at Virginia Military Institute in Lexington, Virginia. Among the scattered remains of Friedman's lifetime accumulations were copies of the *NSA Newsletter*, addressed to "NSA Employees and their families." Bamford then submitted a FOIA for the entire collection, using as his rationale the offending phrase indicating that the information had been intended for dissemination to uncleared people. NSA succeeded in redacting portions

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

using PL 86-36, but a disgruntled former NSA employee gave Bamford an almost complete collection which permitted him to fill in the redacted blanks.⁶⁵

(U//~~FOUO~~) During the Church Committee hearings of 1975, the attorney general had asked his staff to investigate the legal culpability of the various intelligence agencies. Bamford FOIA'ed the resulting document, and he got most of it from the Justice Department. (Justice did not inform NSA because, they reasoned, the investigation was still on-going, and they could not inform a possible target of the investigation.) The document, with some Justice redactions, contained a good deal of information about the NSA-GCHQ relationship, and served as the basis for Bamford's information on Second Party issues. During the ensuing negotiations between NSA and Bamford's lawyer, the government claimed that the documents had been improperly released and should be returned under threat of prosecution. The lawyer, veteran civil rights attorney Mark Lynch, invited Justice to do just that, but no case was ever brought.⁶⁶

(U//~~FOUO~~) Bamford knew how to get information. He drove through the NSA parking lot jotting down diplomatic license plates and checking known lists to see which countries maintained representatives at Fort Meade. He badgered retired NSA senior officials, including famed cryptanalyst Frank Raven, former head of NSA research and development Ray Tate, and former director Marshall Carter, for information, using as a wedge the information that he had already gotten from unclassified sources. Some pushed him aside, but others agreed to talk at length about NSA operations. Carter, for instance, talked with him for a day and a half at his retirement residence in Colorado Springs. All was technically unclassified, but it helped Bamford complete his mosaic. NSA policy makers felt that Raven was especially indiscreet, and lawyers indicated that it might be possible to prosecute, an eventuality that was interrupted by Raven's death.⁶⁷

(U//~~FOUO~~) James Bamford broke new ground in intelligence agency research, and his techniques were adopted by others seeking to investigate reclusive federal agencies. He did it all within the limits of the law - through attributable interviews, FOIA'ed documents, and meticulous research in public libraries and newspapers, not with classified documents provided by unnamed accomplices under cover of darkness. He "wrote the book" on how to put together a comprehensive picture of an organization that wanted no such comprehensive picture. NSA's bottom-line assessment was that the individual pieces of the puzzle were - with one important exception - unclassified. Unfortunately for NSA, the entire mosaic turned out to be Top Secret Codeword.⁶⁸

(U//~~FOUO~~) The single exception was the exposure of the relationship with the British. This was properly classified, and GCHQ was not amused.⁶⁹ Bamford's lawyers turned out to be tough and determined, and the information stayed in the public domain. The release of classified material by, of all organizations, the U.S. Justice Department, left NSA non-plussed.

(U) Bamford produced a book that was deeply flawed by mistaken analyses of collected data. It contained much misinformation, an exaggerated view of NSA's capabilities, and a preoccupation with a lack of statutory controls on NSA. Like Jack Anderson's columns,

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

the book – in the opinion of many NSA leaders – did grave damage to national security while maintaining the guise of legal methodology.

(U) THE AMERICAN LIBRARY ASSOCIATION SUIT

(U) Following publication of *The Puzzle Palace*, General Faurer sent NSA's Meyer Levin to the Marshall Library to see where Bamford had gotten so much of his information. Levin discovered that an archivist had given Bamford access to sequestered portions of the Friedman collection. NSA re-sequestered the documents, and was challenged in court by Bamford's lawyer, Mark Lynch of the American Civil Liberties Union, acting on behalf of the American Library Association.⁷⁰

(U) This time the law was on NSA's side. Since the early negotiations with Lynch over the FOIA'ed Justice Department records, President Reagan had signed a new executive order, 12033, which permitted publicly available documents to be withdrawn if it could be shown that they had been improperly declassified. NSA's argument was supported by the U.S. District Court of Appeals in 1987, which dismissed the case against NSA and ruled that the plaintiff, the American Library Association, lacked standing.⁷¹

(U) EPILOGUE

(U) On November 9, 1989, the East German government announced that its citizens could leave the country without special permission. Within hours, jubilant crowds were surging through the formerly impenetrable Berlin Wall, to be greeted by their West German countrymen. The crowds sang and danced that night. They hacked at chunks of the infamous Wall, and swirled through the Brandenburg Gate. It was liberation day.

(U) November 9 was the culmination of both long- and short-term events. Such imponderables as the inherent weaknesses of Marxism and the latent inefficiencies of the Soviet state moved glacially, but they eventually produced Gorbachev, a man who recognized the situation and tried to reform it. *Glasnost* and *perestroika* (openness and economic restructuring) were the pillars of his reform program.

(U) But short-term events overtook socialist reform. It was not necessary for the Soviet government to invent a new form of socialism – a dandy economic model glittered just across the Iron Curtain in Western Europe. Encouraged to devise their own socialist economic models, Hungary and Poland moved quickly. In East Germany, Eric Honecker, the long-time Communist Party boss, thumbed his nose at reform, and got in return unrest and agitation. Agitation turned into street demonstrations in August. Gorbachev withdrew Soviet support for more repression, and without this guarantee the East German authorities could no longer contain the population. In October, Gorbachev personally told Honecker that the Soviet forces in his country would not come to his rescue. Honecker, sick with gall bladder cancer, knew the end was near.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) So the end of the Cold War swept in like a sudden storm, leaving prognosticators dazed. It happened so fast and went so far that it would take a breathless world some considerable time to assess the event.

(U) For the cryptologic community, it was a new beginning. Nothing like it had happened since the end of World War II. Major target countries disappeared literally overnight. Foreign relationships changed, and former enemies became new Third Parties with scarcely an intervening day.

(U) But from a historical perspective, it was also an ending, a milepost in the course of history. The bipolar world had defined American cryptology for forty-four years. It was now over, and it was time to write the history.

(U) Notes

1. (U) Interview, David Boak, by Tom Johnson, 20 January 1998.
2. (U) Deputy Director's files, 96026, Box 14, Schlesinger papers, NSA memo 21 October 1966.
3. (U) Dick Nelson and Julie Koenen-Grant, "A Case of Bureaucracy in Action: the U.S. Embassy in Moscow," *International Journal of Intelligence and Counterintelligence* (Fall, 1993).
4. (U) Inman interview. Interview, John Wobensmith, by Tom Johnson, 8 November 1996, OH 34-96, NSA. de Graffenreid interview.
5. (U) It appears that [] approached Faurer rather than his counterpart, William Casey, based on a close professional relationship in the area of cryptologic cooperation that they had established after Faurer had become DIRNSA. See interview, Lt. Gen. Lincoln D. Faurer, by Tom Johnson, 20 August 1998, OH 15-98, NSA; CCH Series XII.D., "Gunman," Evaluation of Project Gunman by S65, 28 January 1985. Wobensmith interview. Interview, Stephen B. Carter, by Tom Johnson and Benjamin Hoover, 20 July 1998, OH 14-98, NSA. Deputy Director's files, 96026, Box 14, Schlesinger papers.
6. (U) Carter interview. CCH Series XII.D., "Gunman."
7. (U) Interview, [] by Tom Johnson, 4 August 1998, OH 15-98, NSA. Wobensmith interview. Carter interview. CCH Series XII.D., "Gunman." Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
8. (U) XII.D., "Gunman." Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
9. (U) Deputy Director's Files, 96026, Box 14, "CIA Damage Assessment;" Box 10, "Moscow Embassy - 1987."
10. (U) Faurer interview; Wobensmith interview.
11. (U) Deputy Director's files, 96026, Box 14, Schlesinger paper; "Lonetree-Bracy Chronology and Damage Assessment."
12. (U) Nelson and Koenen-Grant, "A Case of Bureaucracy in Action...." Deputy Director's files, 96026, Box 10, "Moscow Embassy - 1987"; "Laird Panel."

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

13. (U) Reagan Library, NSF, in CCH Series XIV.J, "Embassy Security," Deputy Director's files, 96026, Box 10, "Moscow Embassy - 1987."
14. (U) Michael Beschloss and Strobe Talbot, *At the Highest Levels: The Inside Story of the End of the Cold War* (Boston: Little, Brown and Company, 1991), 33-34, 94.
15. (U) Polmar and Allen, *Merchants of Treason*, 181.
16. (U) Deputy Director's files, 96026, Box 14, "Prime Case Damage Assessment."
17. (U) Ibid.
18. (U) Deputy Director's files, 96026, Box 9, "Milkman Damage Assessment." 5001, 40. Polmar and Allen, *Merchants of Treason*, 40.
19. (U) Deputy Director's files, 96026, Box 9, "Milkman Damage Assessment."
20. (U) Norman Polmar and Thomas B. Allen, *Merchants of Treason* (New York: Delacourte Press, 1988), 205-06.
21. (U) Deputy Director's files, 96026, Box 4, "Pelton File."
22. (U) NSA, S4 videotape briefing on Pelton. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment."
23. (U) NSA, GC office files, U.S. v. Pelton working papers. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment."
24. (U) NSA, S4 videotape briefing on Pelton. NSA, GC office files, U.S. v. Pelton, Pleadings.
25. (U) Ibid.
26. (U) S4 Pelton videotape. [] interview.
27. (U) Polmar and Allen, *Merchants of Treason*, 207-14. Interview, [] by Tom Johnson, 20 February 1997, OH 5-97, NSA.
28. (U) [] interview.
29. (U) Deputy Director's files, 96026, Box 4, "Pelton File."
30. (U) Ibid. [] interview.
31. (U) [] interview.
32. (U) Interview, William P. Crowell, by David A. Hatch and [] 29 May 1996, OH 16-96, NSA. [] interview. NSA, GC office files, Pelton file. [] interview.
33. (U) [] interview.
34. (U) Ibid.
35. (U) NSA, GC office files, U.S. v. Pelton, working papers. Deputy Director's files, 96026, Box 14, "Pelton Damage Assessment"; "CIA Damage Assessment." Ch A2 files, 96228, Box 4, A/J Joint Conference 1987; Box 6 "T230."
36. (U) Ch, A2 files, 96228, Box 4, "Miscellaneous Studies."

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

37. (U) NSA, GC office files, Pelton; U.S. v. Pelton, Working Papers. Interview, Lt. Gen. William Odom, by Tom Johnson, 19 August 1997, OH 13-97, NSA.
38. (U) NSA, GC office files, "U.S. v. Pelton, Working Papers." Bradlee quote is from *Time*, June 2, 1986.
39. (U) NSA, GC office files, Pelton. Odom interview.
40. (U) NSA, GC office files, Pelton.
41. (U) Ibid., Durenberger letter to SSCI members, 7 May 1986.
42. (U) Interview, [] by Charles Baker and Tom Johnson, 2 February 1993, OH 2-93, NSA. Boak interview. U.S. Department of Justice, Federal Bureau of Investigation, "John A. Walker Espionage Network," July 1987.
43. (U) Telephone interview with Joseph Maguire, by Tom Johnson, 19 December 1997. Tate interview. Rosenblum interview.
44. (U) Ibid.
45. (U) FBI, "John A. Walker Espionage Network." Carter interview.
46. (U) Deputy Director's files, 96026, Box 14, "CIA Damage Assessment." Pete Early, *Family of Spies: Inside the John Walker Spy Ring* (New York: Bantam Books, 1988). FBI, "John A. Walker Espionage Ring."
47. (U) Early, *Family of Spies*. NSA Archives, acc nr 20960, CBOF 33.
48. (U) Newton, *The Capture of the USS Pueblo...*, 157-59. Polmar and Allen, *Merchants of Treason*, 18.
49. (U) FBI, "John A. Walker Espionage Ring."
50. (U) Deputy Director's files, 96026, Box 1, "Overview of Damage from Recent Espionage." NSA Archives, acc nr 20960, CBOF 33. FBI, "John A. Walker Espionage Ring."
51. (U) Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
52. (U) FBI, "John A. Walker Espionage Ring." Interview, Michael Jacobs, by Tom Johnson and Ben Hoover, 22 June 1998, OH 11-98, NSA.
53. (U) NSA Archives, acc nr 20960, CBOF 33; acc nr 19217, H03-0102-6. Deputy Director's files, 96026, Box 14, "CIA Damage Assessment."
54. (U) FBI, "John A. Walker Espionage Ring."
55. (U) Polmar and Allen, *Merchants of Treason*, 292-87.
56. (U) Ibid., 295.
57. (U) Ibid., 288-90.
58. (U) Ibid., 291-93.
59. (U) [] interview. CCH Series XII.D., Pollard file, debriefing notes, 13/14 August 1986.
60. (U) Ibid.
61. (U) Polmar and Allen, *Merchants of Treason*, 288-89, 297.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

62. (U) S4 files, James Hall, 63.

63. (U) S4 files, Jeffrey Carney.

64. (U) Interview, Meyer J. Levin, by Robert Farley and Tom Johnson, 14 January 1987, OH 2-87, NSA. Paul Constance, "How Jim Bamford Probed the NSA," *Cryptologia*, 21 (January 1997), 71-74.

65. (U) David C. Martin, "Putting Secret Puzzles Together," *The Washingtonian* (March 1983), 89-95. Constance, "How Jim Bamford Probed the NSA," 72. Levin interview.

66. (U) Levin interview. Constance, "How Jim Bamford Probed the NSA."

67. (U) Levin interview. Interview, LTG Marshall S. Carter, by Robert Farley, 3-6 October 1988, OH 15-88, NSA.

68. (U) NSA, CCH Series VI.G.4.

69. (U) Ibid.

70. (U) Levin interview. NSA, CCH Series VI.G.2.1.

71. (U) Ibid.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

(U) Glossary

ABM – antiballistic missile
 ACE – American Council on Education
 ACRP – Airborne Communications Reconnaissance Program
 ACSI – Assistant Chief of Staff, Intelligence (Army)
 ADC – Assistant Director for COMSEC
 AFSC – Armed Forces Security Center (Thai military organization)
 AFSCC – Air Force Special Communications Center
 AFSS – Air Force Security Service
 AFTAC – Air Force Technical Applications Center
 ALP – Australian Labor Party
 ALTROF – alternate remote operations facility
 AMPS – Automated Message Processing System
 ANO – Abu Nidal Organization
 ANZUS – Australia, New Zealand and the United States (diplomatic treaty)
 ARDF – airborne radio direction finding
 AROF – A Remote Operations Facility
 ARVN – Army of the Republic of Vietnam (i.e., South Vietnam)
 ASA – Army Security Agency
 ASRP – Airborne SIGINT Reconnaissance Platform
 ASTW – Agency Standard Terminal Workstation
 ASW – antisubmarine warfare
 AT&T – American Telephone and Telegraph Corporation
 BND – Bundes Nachrichten Dienst
 BROF – B Remote Operations Facility
 BSU – Bauded Signals Upgrade
 BWI – Baltimore-Washington International Airport
 C3CM – command, control and communications countermeasures
 CBR – chemical, biological and radiological

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

CCP – Consolidated Cryptologic Program

CDAA – circularly disposed antenna array

CDC – Control Data Corporation

CENTCOM – Central Command

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

CINCPAC – Command-in-Chief, Pacific

CNO – Chief of Naval Operations

COC – Collection Operations Center

COINS – Community On-line Information System

CONUS – continental United States

COPES – Collection Operations Position Evaluation Standard

COS – Chief of Station (CIA)

CSG – cryptologic support group

CSOC – Current SIGINT Operations Center

CSS – Central Security Service

DARPA – Defense Advanced Research Projects Agency

DAO – Defense Attaché Office

DCA – Defense Communications Agency

DCI – Director of Central Intelligence

DDF – Deputy Director for Field Management and Evaluation

DDO – Deputy Director for Operations (NSA)

DDR – Deputy Director for Research

DDT – Deputy Director for Telecommunications and Computer Services

DEA – Drug Enforcement Administration

DEFCON – Defense Condition

DEFSMAC – Defense Special Missile and Astronautics Center

DES – data encryption standard

DGTS – Directorate General of Technical Security (South Vietnamese SIGINT service)

DIRNSA – Director, NSA

DO – Director for Operations (CIA)

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

DOJ – Department of Justice

DMZ – demilitarized zone

DSA – Defense Supply Agency (U.S. DoD) or Defense Security Agency (South Korea)

DSD – Defence Signals Directorate

DSCS – DoD Satellite Communications System

DSE – direct support element (Navy)

DSSCS – Defense Special Security Communications System

GDRS – General Directorate of Rear Services (North Vietnamese logistics network)
supporting infiltration into South Vietnam)

DSU – direct support unit (Army)

ECCM – electronic counter-countermeasures

ECM – electronic countermeasures

ESC – Electronic Security Command

ESM – electronic (warfare) support measures

EUCOM – European Command

EW – electronic warfare

FANX – Friendship Annex

FCC – Federal Communications Commission

FISA – Foreign Intelligence Surveillance Act

FOIA – Freedom of Information Act

FRG – Federal Republic of Germany

FSCS – Future SIGINT Capabilities Study

GE – General Electric Company

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

 GROF – G Remote Operations Facility

GSA – General Services Administration

GSFG – Group of Soviet Forces Germany

GTOF – G Tennis Operations Facility

HAC – House Appropriations Committee

HPSCI – House Permanent Select Committee on Intelligence

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

IATS – Improved AG-22 Terminal System
IC – intelligence community
ICBM – intercontinental ballistic missile
IDA/CRD – Institute for Defense Analyses/Communications Research Division
IDDF – Internal Data Distribution Facility
IEEE – Institute of Electrical and Electronics Engineers
IFF – identification friend or foe
ILC – international commercial
INR – [Bureau of] Intelligence and Research (State Department)
INSCOM – Intelligence and Security Command
IR – infrared
IRBM – intermediate range ballistic missile
ITAR – International Traffic in Arms Regulation
ITT – International Telephone and Telegraph [corporation]
I&W – indications and warning
JASDF – Japanese Air Self-Defense Force
JOPS – J Operations Processing System
JUSMAG – Joint U.S. Military Assistance Group
KAL – Korean Air Lines
KC – Khmer Rouge (communist insurgent force in Cambodia)
LLVI – low-level voice intercept
LMSC – Lockheed Missile and Space Corporation
LPG – London Processing Group
MAAG – Military Advisory Assistance Group
MAC – Military Airlift Command
MACV – Military Assistance Command Vietnam
MCSF – Mobile Cryptologic Support Facility
MEAR – Maintenance, Engineering, and Architecture (team)
MENAS – Middle East and North Africa Summary
MIJI – meaconing, intrusion, jamming and interference

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

MO – method of operation

MIRV – multiple independently targetted re-entry vehicle

MODE – Monitoring of Overseas Direct Employment

NBS – National Bureau of Standards

NCC – National Cryptologic Command

NCO – noncommissioned officer

PL 86-36/50 USC 3605

NIO – National Intelligence Officer

NISC – Naval Intelligence Support Center

NIST – National Institute for Standards and Technology

NNBIS – National Narcotics Border Interdiction System

NOB – new office building (American embassy chancery, Moscow)

NOIWON – National Operations and Intelligence Watch Officers Network

NORAD – North American Air Defense Command

NPIC – National Photographic Interpretation Center

NRL – Naval Research Laboratory

NRO – National Reconnaissance Office

NSASAB – NSA Scientific Advisory Board

NSC – National Security Council

NSCID – National Security Council Intelligence Directive

NSF – National Science Foundation

NSG – Naval Security Group

NSOC – National SIGINT Operations Center

NTIA – National Telecommunications and Information Administration

NTISSC – National Telecommunications Information Security Committee

NVA – North Vietnamese Army

OCMC – Overhead Collection Management Center

OCR – optical character reader

OMB – Office of Manpower and Budget

ONI – Office of Naval Intelligence

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

ONR – Office of Naval Research

OPEC – Organization of Petroleum Exporting Countries

OSD – Office of the Secretary of Defense

OSHA – Occupational Safety and Health Administration

OTAR – over-the-air rekeying

PACAF – Pacific Air Forces

PACOM – Pacific Command

PARPRO – Peacetime Aerial Reconnaissance Program

PC – Problem Center

PDF – Panamanian Defense Force

PERSUM – NSA personnel summary

PFIAB – President's Foreign Intelligence Advisory Board

PFLP – Popular Front for the Liberation of Palestine

PLO – Palestine Liberation Organization

PRC – People's Republic of China

PX – post exchange facility

RASIN – Radio Signal Notation

RCA – Radio Corporation of America

PL 86-36/50 USC 3605

RIF – reduction in force

ROC – Republic of China (Taiwan)

ROF – remote operations facility

ROFA – Remote Operations Facility

RSA – Rivest, Shamir and Adelman [name of an encryption algorithm]

SAC – Strategic Air Command

SACEUR – Supreme Allied Commander Europe

SAFSPD – Secretary of the Air Force Special Projects Division

SALT – Strategic Arms Limitation Talks

SCA – Service Cryptologic Agency

SCE – Service Cryptologic Element

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

SDS – Students for a Democratic Society

SIGDASYS – SIGINT Inter-Connected Data System

SIGSUM – SIGINT Summary

SIOP – single integrated operational plan (U.S. nuclear targetting plan)

SLO – SIGINT Liaison Office

SOO – Senior Operations Officer

SORS – SIGINT Overhead Reconnaissance Subcommittee

SOSUS – Sound Surveillance System

SOUTHCOM – Southern Command

SSA – Special Support Activity

SSBN – ship submersible, nuclear

SSCI – Senate Select Committee on Intelligence

SSO – Special Security Office

STU – Secure Telephone Unit

SUA – Shan United Army

SUSLO – Senior U.S. Liaison Officer [to GCHQ]

TACREP – tactical SIGINT report

TAREX – Target Exploitation

TCOF – Transient Collection Operations Facility

TDOA – time difference of arrival

TENCAP – Tactical Exploitation of National Capabilities

TVD – Soviet term for theater of military operations (TMO)

UKUSA – United Kingdom-United States [agreement on cryptologic matters]

USAFE – U.S. Air Forces Europe

USAFSS – U.S. Air Force Security Service

USIB – United States Intelligence Board

U&S – unified and specified [commanders/commands]

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

USSAG – United States Support Activities Group (the successor to MACV)

USSID – U.S. Signals Intelligence Directive

VTa – Soviet military air transport arm

ZI – Zone of the interior (i.e., continental United States)

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

(U) Sources

~~(S//SI)~~ The time period covered by Books III and IV is so recent that there were few secondary histories of any of it. Notable exceptions were Robert Newton's very fine history of SIGINT and the Falklands Crisis, and [] *Cryptologic Quarterly* article on public cryptography during the Inman administration. Sharon Maneki's forthcoming history of SIGINT and the Panama Canal negotiations also played a useful part. There were few other internally published secondary sources available. Thus, Books III and IV were produced through research in primary documents. The two most extensive collections were:

1. (U) The NSA Archives. This consists of two categories of records:

a. (U) Archived records, which have been accessioned into the permanently retained collection. These appear in footnotes as an accession number (e.g., acc nr 39471) and a shelf location (e.g., H03-0311-4).

b. (U) Retired records. These are still the property of the donating office and have not been accessioned. They are identified by a shipment and box number, e.g., 43852, 105915-56.

2. (U) The historical collection of the Center for Cryptologic History (CCH), S542. This collection of historical documents actually predates the archived collection, and it contains records going back to the earliest days of cryptology. Records in this collection generally duplicate those in the Archives, but they are maintained as a separate file for ease of access by historians. The CCH collection is organized into the following series:

- I. Pre-1915
- II. 1915-1918 (World War I)
- III. 1919-1939 (Interwar period)
- IV. 1939-1945 (World War II)
- V. 1946-1952 (pre-AFSA and AFSA period)
- VI. 1952-present
- VII. Special and miscellaneous collections
- VIII. Crisis files
- IX. Press and journal items
- X. References
- XI. Papers collected by NSA and pre-NSA officials
- XII. Papers collected by NSA historians
- XIII. Equipment manuals
- XIV. COMSEC documents
- XVI. Cryptologic papers duplicated from presidential libraries

Citations from this collection are by series number, followed by subseries designations, for instance, VI.A.1.9.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

3. (U) Oral histories. NSA's oral history collection now comprises nearly 600 interviews with mostly NSA officials on cryptologic topics. This collection is extremely useful, especially in view of the paucity of official records. Very few subjects covered by this history were done without reference to oral histories. They are identified by the year and a one-up number, e.g., 12-94. The most useful for Books III and IV were:

Lew Allen, Jr., 19-96
 Eugene Becker, 11-96
 Joseph M. Bellomo, 19-96
 Edward Benz, 33-96
 Frederick J. Berghoff, 50-94
 Frederick Bergman, 1977, unnumbered
 Richard L. Bernard, 15-94 and 18-96
 H. Judd Berry, 9-86
 [redacted] December 1996, unnumbered
 David G. Boak, May 1998, unnumbered
 Norman Boardman, 3-86
 Bonsall, Sir Arthur W., 40-95
 James V. Boone, 27-86 and unnumbered interview, June 1998
 Paul Brady, 22-95
 [redacted] 1976, unnumbered
 Alan D. Cameron, Edward A. O'Connor and James A. Wright, 6-92
 Richard L. Canova and Perry Iannaconi, 25-96
 Stephen B. Carter, 13-98
 Dennis Chapman, 2-97
 George R. Cotter, 7-96
 William P. Crowell, 16-96
 [redacted] September 1997, unnumbered
 Kenneth deGraffenreid, 5-98
 John P. Devine, 1-95
 [redacted] January 1997, unnumbered
 [redacted] 14-86
 James W. Dyer, Gerald F. Kozlowski, [redacted] and Robert F. Stahley,
 4-93
 Lincoln D. Faurer, 8-87
 Thomas J. Fogarty, 1997, unnumbered
 [redacted] 30-87
 [redacted] 15-96
 Thomas L. Glenn, 4-86
 [redacted] 5-97
 John R. Harney, 32-87
 [redacted] July 1997, unnumbered
 Robert J. Hermann, 45-94

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

- [redacted] February 1997, unnumbered
- James G. Hudec, 17-96
- [redacted] 6-86
- Francis P. Hyland, 11-97
- Bobby R. Inman, 9-97
- Edward Jacobs, 4-97
- [redacted] February 1997, unnumbered
- [redacted] 10-97
- Edward Jacobs, 4-97
- Michael Jacobs, 10-98
- [redacted] 13-86
- William T. Kvetkas, 25-96
- Meyer J. Levin, 2-87
- [redacted] 18-86
- [redacted] 10-87
- [redacted] 1-96
- Doyle E. Larson, 15-94, 15-97
- [redacted] 1997, unnumbered
- [redacted] 8-92
- Joseph Maguire, February 1997 and April 1998, unnumbered
- [redacted] 7-97
- Sir Peter Marychurch, 11-89
- [redacted] 19-85
- [redacted] January 1997, unnumbered
- [redacted] 2-93
- [redacted] 23-94
- [redacted] March 1997, unnumbered
- Robert Morris, 41-94
- Robert Mueller, 6-8
- [redacted] January 1997, unnumbered
- William E. Odom, 13-97
- [redacted] 34-96
- [redacted] September 1997, unnumbered
- Harold L. Parish, 20-82
- Russel L. Parker, 52-94
- Cecil J. Phillips, 23-93
- Howard S. Pierce, 12-98.
- [redacted] 1966, unnumbered
- Whitney E. Reed, 39-96
- Robert E. Rich, 12-97
- Elizabeth Rindskopf, 4-98
- [redacted] January 1997, unnumbered
- Howard E. Rosenblum, 3-91

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

[redacted] 8-97
 [redacted] 15-97
 and [redacted] 1-92
 Donald M. Showers, by Arthur D. Baker III, 1992.
 [redacted] 14-97
 [redacted] AIA oral history
 Kermit H. Speierman, 2-86
 John Spencer, 29-93
 Carl W. Stapleton, ESC interview, 1986
 [redacted] 24-86
 William O. Studeman, 5-91
 Raymond L. Tate, 35-96
 [redacted] 12-96
 David H. Williams, 23-87
 John Wobensmith, 34-96
 Richard Young and [redacted] 1977, unnumbered
 Milton Zaslow, 17-93
 [redacted] 4-92

EO 1.4.(b)

4. (U) Internally published, classified, histories included the following:

- (U) Abbott, Walter D., Jr. "Establishment of the [redacted] 1979," *Cryptologic Quarterly*, 12:5 (No. 1 Issue, 1993)
- (U) Boak, David G. A History of U.S. Communications Security [The David G. Boak Lectures]. Fort Meade: NSA, 1973.
- (U) Bradburn, Maj Gen David D. (USAF, Ret.), Col John O. Copley (USAF, Ret.), Raymond B. Potts and Roger E. Thayer. *The SIGINT Reconnaissance Satellites*. Washington: NRO, 1994
- (U) [redacted] Interview. *Cryptolog*, December 1976.
- (U) Campbell, Norman J. "Guardrail: A Joint Tactical SIGINT Support System," *Cryptologic Spectrum* (Spring 1975), 15-18.
- (U) [redacted] "Ethiopia, 1972-1975: An Inside View of Indications and Warning," *Cryptolog* (1st Issue, 1978), 1-8.
- (S//SI) [redacted] "The Dozier Kidnapping: A Story of Successful SIGINT Cooperation," *Cryptologic Quarterly*, 10:3-4 (Fall/Winter 1991), 1-29.
- (U) Filby, Vera. *The Soviet Invasion of Afghanistan: A Cryptologic History*. U.S. Cryptologic History, Special Series, Crisis Collection, Vol. 8. Fort Meade: NSA, 1993.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

OGA

(U) [] "The 1983 War Scare in U.S.-Soviet Relations, *Studies in Intelligence*, 39:4 (1995), 61-72.

(S//SI) [] "Radio Technical System for Short-Range Navigation (RSBN)," *Cryptologic Quarterly*, 16:1 (Spring 1997), 75-89.

(U) Hanyok, Robert J. "Scaling Down NSA," *NSA Newsletter*, January 1995.

(U) [] "The Relevant Truths: SIGINT Issues of the Indochina War, 1950-1975 (Part II)" *Cryptologic Quarterly*, 16:3 (Fall 1997), 1-50.

(U) [] The Story of the Hughes Glomar Explorer," *Studies in Intelligence* (Fall 1978), 1-50.

(U) [] "OPSEC as a Management Tool." *Cryptolog* (1st issue, 1972), 7-9.

(U) [] *PURPLE DRAGON: The Origin and Development of the United States OPSEC Program*. U.S. Cryptologic History, Series VI, Vol. 2. Ft. Meade: NSA, 1993.

(U) [] *NSA's Involvement in U.S. Foreign SIGINT Relationships through 1993*. U.S. Cryptologic History, Series VI, Vol. 4. Ft. Meade: NSA, 1995.

(U) [] "NSA Comes Out of the Closet: The Debate Over Public Cryptography in the Inman Era." *Cryptologic Quarterly*, 15:1 (Spring 1996), 5-44.

(U) [] "The Platform Network Evolution," *Cryptologic Quarterly*, 9:4 (Winter 1991).

(U) Newton, Robert E. *The Falklands, 1982: An American Perspective*. U.S. Cryptologic History Series, Special Series, Crisis Collection, Vol. 4. Ft. Meade: NSA, 1991.

(U) Nolte, William. *NSA Actions During the Iranian Hostage Crisis: An Interim History*. U.S. Cryptologic History Series, # 1. Ft. Meade: NSA, 1981.

(U) [] *Project Tennis: A History of Satellite Remoting, 1968-1977*. Fort Meade: NSA, 1977.

(U) [] "Foreign SIGINT Operations: The Legal Side." *IAI International Notes and News*. Fort Meade: NSA, 1993.

(U) [] "The Great Conversation." *Cryptolog* (1st Issue 1992), 2-6.

(U) Stahley, Glenn F. *Fifty Years of Mathematical Cryptanalysis*. Fort Meade: NSA, 1988.

(U) Ware, Willis, et al. "Report of the Second Computer Study Group," *NSA Technical Journal* 19:1 (Winter 1974), 21-61.

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) [Wiley, Edward] *On Watch: Profiles from the National Security Agency's Past 40 Years*. Ft. Meade: NSA, n.d.

~~(S//SI)~~ [] "The Tacksman Project: A SIGINT Success Story," *Studies in Intelligence* (Fall, 1991), 21-31. (Published by CIA.)

5. (U) Internal, but unpublished, historical studies often contain important information. The more important ones used in this study were:

(U) [] "The Reemployed Annuitant (REA) Program in NSA: An Evaluation of the Agency Archives." CCH files.

~~(S//SI)~~ [] "A Historical Overview of the U.S. SIGINT Effort in Turkey," October 1988, in CCH Series VI.K.1.4.

(U) Filby, Vera. "A Decade of Change in SIGINT Reporting: The 1970s." 7 August 1979. CCH Series XII.D.

(U) Finnegan, Jack. "IOSS and After." 1987. Available at HQ INSCOM, Fort Belvoir, Virginia.

(U) [] "Support to Military Operations: NSA's Contribution to Operation 'Just Cause'." NSA/PGIP Class 9101.

(U) "Historical Study of NSA Telecommunications, Annual, 1973-1975." CCH Series A.1.10.

(U) "History of the Poppy Satellite System." October 1978. CCH Series XII.OO.

(U) "History of Yakima Research Station: [] CCH Series VI.I.1.3.

~~(S//SI)~~ [] History of [] CCH Series VII.89.

(U) [] "Development of the Australian SIGINT Organization: A Synopsis of Major Events from 1947 to 1992." CCH Series VI.J.1.2.1.

(U) [] "A Brief History of GROF." CCH files, 1996.

(U) [] Draft history of OTAR, 1998, in CCH Series XII.D.

(U) [] "International Terrorism and the National Security Agency: The Evolution of a Centralized Response." 1986. CCH files.

(U) Millington, Henry. Untitled manuscript on the history of [] CCH collection.

(U) Moore, Elizabeth. "As We Were: An Informal History of Bad Aibling Station, 1936-1988." CCH Series VI.I.1.10.

(U) [] "History of Menwith Hill Station." CCH Series VI.I.2.11.

PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

(U) [] "The Eagle Watches the Bear: Soviet Involvement in Afghanistan, 1978-1980." CCH Series VIII.44.

(U) "SIGINT Support to Military Operations" [the Hermann Study]. NSA retired records, 28792, 80-079.

(U) "Summary of Statutes Which Relate Specifically to NSA and the Cryptologic Activities of the Government." Undated manuscript file in CCH files.

(U) [] Draft history of computer security at NSA. CCH files.

6. (U) There are several important documents or collections of historically valuable documents that repose in various locations within NSA. The most useful were:

(U) [] Study. 1978. CCH Series XII.D.

(S//SI) CDO [] files. NSA, Directorate of Foreign Relations.

(S//SI) CDO [] files. NSA, Directorate of Foreign Relations.

(S//SI) CDO [] files. NSA, Directorate of Foreign Relations.

(U) CDO UK files. NSA, Directorate of Foreign Relations.

(U) Drawstring Task Force Report, 10 December 1973. NSA Archives, acc nr 32545.

(U) Files of NSA's deputy directors, retired records, shipment nr 96026, boxes 104545-10458. This collection was the single most valuable source for these two books.

(U) Files of the chief, A2 (office of Soviet analysis), retired records, shipment nr 96226, boxes 105951-56.

(U) History of the Soviet Nuclear Weapons Program. [] NSA. DCI/ICS 5321/87JX.

(U) HF Modernization Plan (draft). 11 April 1980. CCH Series XII.D.

(U) HF Target Studies, 1975, 1978. CCH Series XII.D.

(U) Morrison, John R. (Maj Gen, USAF, Ret.), personal and professional papers in CCH Series XI.R.

(U) "National Security Agency: The Evolution of a Centralized Response." CCH files, 1986.

(U) Pelton file. NSA General Counsel office.

(U) Rockefeller Commission Report and related correspondence. NSA Archives, acc nr 45146N, H07-0201-6.

PL 86-36/50 USC 3605

EO 1.4. (b)
EO 1.4. (c)
PL 86-36/50 USC 3605~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

(U) "Technology for Special Purpose Processors." March 1978. NSA Archives, acc nr 27451, CBUI 31.

7. (U) A few files and studies by SCE components were used. Available at AIA at Kelly AFB, San Antonio, are:

(U) "A Historical Monograph of the KAL 007 Incident."

(U) "A History of the USAFSS Airborne SIGINT Reconnaissance Program (ASRP), 1950-1977."

(U) "History of the Electronic Security Command." Annual. (Most are available in CCH Series X; others can be obtained from AIA, Kelly AFB, San Antonio, TX.)

(U) [REDACTED] "A Chronology of Significant Events in the History of the Electronic Security Command, 1948-1988."

(U) Whitacre, SMSgt Frank. "A Historical Study of the Drawdown of USAFSS Operations in Southeast Asia (SEA)." San Antonio: USAFSS, 1974.

8. (U) In contrast to Books I and II, outside scholarship played a big role in certain aspects of the current two books. As NSA's role has become more public, this source of information will inevitably expand.

Andrew, Christopher. *For the President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush*. New York: HarperCollins, 1994.

_____. "The Growth of the Australian Intelligence Community and the Anglo-American Connection," *Intelligence and National Security*, 4:2 (April 1989), 213-256.

Bamford, James. *The Puzzle Palace: A Report on America's Most Secret Agency*. Boston: Houghton Mifflin Co., 1982.

Bernstein, Carl, and Marco Politi. *His Holiness: John Paul II and the Hidden History of Our Time*. New York: Doubleday, 1996.

Beschloss, Michael, and Strobe Talbot. *At the Highest Levels: The Inside Story of the End of the Cold War*. Boston: Little, Brown and Company, 1991.

Brzezinski, Zbigniew. *Power and Principle: Memoirs of the National Security Advisor, 1977-1981*. New York: Farrar, Straus, Giroux, 1983.

Burrows, William E. *Deep Black: Space Espionage and National Security*. New York: Random House, 1986.

Butler, David. *The Fall of Saigon*. New York: Dell Books, 1985.

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Cline, Ray S. *The CIA Under Reagan, Bush and Casey*. Washington, D.C.: Acropolis Books, 1981.

Codes, Keys, and Conflicts: Issues in U.S. Crypto Policy. Report of a Special Panel of the ACM U.S. Public Policy Committee (USACM). New York: ACM, 1994.

Codevilla, Angelo. *Informing Statecraft: Intelligence for a New Century*. New York: Free Press, 1992.

Cole, Ronald H. *Operation Urgent Fury*. Washington, D.C.: JCS Joint History Office, 1997.

Congressional Quarterly. "The Iran-Contra Puzzle." Washington, D.C.: *Congressional Quarterly*, 1987.

Constance, Paul. "How Jim Bamford Probed the NSA," *Cryptologia*, 21:1 (January 1997), 71-74.

Dam, Kenneth W., and Herbert S. Lin (eds.). *Cryptography's Role in Securing the Information Society*. National Research Council, Computer Science and Telecommunications Board. Washington, D.C.: National Academy Press, 1996.

Dobrynin, Anatoly. *In Confidence: Moscow's Ambassador to America's Six Cold War Presidents (1962-1986)*. New York: Times Books Division of Random House, 1995.

Donnelly, Thomas, Margaret Roth and Caleb Baker. *Operation Just Cause: The Storming of Panama*. New York: Lexington Books, 1991.

Draper, Theodore. *A Very Thin Line: The Iran-Contra Affair*. New York: Hill and Wang, 1991.

Early, Pete. *Family of Spies: Inside the John Walker Spy Ring*. New York: Bantam Books, 1988.

Goldschmidt, Arthur. *A Concise History of the Middle East*. Boulder: Westview Press, 1979.

Greene, John Robert. *The Presidency of Gerald Ford*. Lawrence, Kansas: University of Kansas Press, 1995.

Guilmartin, John F. Jr. *A Very Short War: The Mayaguez and the Battle of Koh Tang*. College Station, Texas: Texas A & M Press, 1995.

Herring, George. *America's Longest War: The United States and Vietnam, 1950-1975*. Philadelphia: Temple University Press, 1986.

Hersh, Seymour. *The Price of Power: Kissinger in the Nixon White House*. New York: Summit Books, 1983.

_____. *The Target is Destroyed: What Really Happened to Flight 007 and What America Knew About It*. New York: Random House, 1986.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Johnson, L. K. *A Season of Inquiry: The Senate Intelligence Investigation*. Lexington, Kentucky: University of Kentucky Press, 1985.

Kagan, Robert. *A Twilight Struggle: American Power and Nicaragua, 1977-1990*. New York: Free Press, 1996.

Kahn, David. "Cryptology Goes Public." *Foreign Affairs*, Vol 58:1 (Fall 1979), 141-59.

_____. "Big Ear or Big Brother?" *New York Times Magazine*, May 16, 1976, 62-72

_____. "Soviet COMINT in the Cold War," *Cryptologia*, 1:18 (January 1988).

Karnow, Stanley. *Vietnam: A History*. New York: Penguin Books, 1983.

Kneese, Jack. *Family Treason: The Walker Spy Case*. Briarcliffe Manor, NY: Stein and Day, 1986.

Nelson, Dick, and Julie Koenen-Grant. "A Case of Bureaucracy in Action: The U.S. Embassy in Moscow," *International Journal of Intelligence and Counterintelligence*, Fall, 1993.

O'Toole, G.J.A. *Honorable Treachery: A History of U.S. Intelligence Espionage and Covert Action from the American Revolution to the CIA*. New York: Atlantic Monthly Press, 1991.

Peck, Winslow. "U.S. Electronic Espionage: A Memoir." *Ramparts*, August 1972, 36-50.

Persico, Joseph. *Casey: From the OSS to the CIA*. New York: Viking Penguin, 1990.

Ploss, Sidney I. *Moscow and the Polish Crisis: An Interpretation of Soviet Policies and Intentions*. Boulder: Westview Press, 1986.

Polmar, Norman, and Thomas B. Allen. *Merchants of Treason*. New York: Delacourte Press, 1988.

Powers, Thomas. *The Man Who Kept the Secrets: Richard Helms and the CIA*. New York: Alfred A. Knopf, 1979.

Prados, John. "The War Scare of 1983," *Military History Quarterly*, 9:3 (Spring 1997), 63-73.

Ranelagh, John. *The Agency: The Rise and Decline of the CIA*. New York: Simon and Schuster, 1986.

Shultz, George P. *Turmoil and Triumph: My Years as Secretary of State*. New York: Charles Scribner's Sons, 1993.

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Smist, Frank. *Congress Oversees the United States Intelligence Community, 1947-1989*. Knoxville: University of Tennessee Press, 1990.

Spiegel, Steven L. *The Soviet-American Competition in the Middle East*. Lexington, Massachusetts: Lexington Books, 1988.

Talbot, Strobe. *Endgame: The Inside Story of SALT II*. New York: Harper and Row, 1979.

Theis, Wallace J., and James D. Harris. "An Alliance Unravels: The United States and ANZUS." *Naval War College Review*, Summer 1993, 98-123.

Theoharis, Athan. *Spying on Americans: Political Surveillance from Hoover to the Huston Plan*. Philadelphia: Temple University Press, 1978.

Toohey, Brian, and William Pinwill. *Oyster: The Story of the Australian Secret Intelligence Service*. Port Melbourne, Australia: Octopus Publishing Group, 1990.

Turner, Stansfield. *Secrecy and Democracy: The CIA in Transition*. Boston: Houghton Mifflin, 1983.

Walsh, Lawrence E. *Firewall: The Iran-Contra Conspiracy and Cover-Up*. New York: Norton and Co., 1997.

Weaver, Mary Ann. "Burying the Martyrs," *New Yorker*, January 1993.

White, Theodore H. *Breach of Faith: The Fall of Richard Nixon*. 1st ed. New York: Atheneum Publishers, 1975.

Woodward, Bob. *Veil: The Secret Wars of the CIA 1981-1987*. New York: Simon and Schuster, 1987.

9. (U) Material from the presidential libraries played a key role in this book. Those visited were:

Jimmy Carter Presidential Library, Atlanta, Georgia

Gerald R. Ford Presidential Library, Ann Arbor, Michigan

Ronald Reagan Presidential Library, Simi Valley, California

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Index

2Wireless Regiment, 45

40 Committee



EO 1.4.(c)
PL 86-36/50 USC 3605

Aaron, David, 104, 257

Abbas, Abu, 352, 355, 360

Able Archer, 319

Abrams, Elliott, 380

Abzug, Bella, 93, 98-99

Achille Lauro, 264, 351-353, 359, 366-367

ACLU – see American Civil Liberties Union

ACRP – see Airborne Communications Reconnaissance Program

Adak, Alaska, 44, 134

Addis Ababa, Ethiopia, 31, 33-34

ADVANCER (project name), 225



(project name), 57

PL 86-36/50 USC 3605

AFCEA – see Armed Forces Communications Electronics Association

AFSCC – see Air Force Special Communications Center

AFSS – see United States Air Force Security Service

AFTAC, 73

Agee, Jerry, 423

Agee, Phillip, 128

Agency Standard Host (ASH), 291

Agency Standard Terminal Workstation (ASTW), 291

Agnew, Spiro, 182

AGRA (A Group Reporting Authority), 124

Airborne Communications Reconnaissance Program (ACRP), 1, 37, 372

Airborne Radio Direction Finding (ARDF), 2, 9, 15, 38, 55-56, 60, 382

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Airborne SIGINT Reconnaissance Program (ASRP), 37, 182

Air Force Intelligence Center, 73

Air Force Special Communications Center, 72, 123

Air Force Special Projects Division (SAFSPD), 131, 133

AK-reports, 392-393

[REDACTED]

EO 1.4.(b)

ALA – see American Library Association

Alcohol, Tobacco, and Firearms, Bureau of, 361

[REDACTED]

PL 86-36/50 USC 3605

Ali, Muhammad, 85

Allen, Charles, 392

Allen, Lew, 9, 11, 25-26, 30, 34, 41, 46, 51, 65-66, 72-73, 84-86, 88-91, 93-94, 96, 99-100, 103, 106, 111, 123, 148, 153, 163, 180, 189, 192, 198, 208, 228-229, 246, 293, 300

Allen, Richard, 270

Amal, 349-350

Amato, Joseph, 129, 137

American Civil Liberties Union (ACLU), 428

American Council on Education (ACE), 238

American Library Association (ALA), 428

Ames, Aldrich, 414

Amin, Hafizullah, 251-253

Ampex, Inc., 223

AMPS (Automatic Message Processing System), 141-142

Anders (project name) 164, 204

Anderson, Jack, 81-82, 102, 121, 150, 414

Andrew, Christopher, 265, 308, 379

Andrews, Alfred W., 39

Andropov, Yuri, 318, 331

Angleton, James J., 365

Ankara, Turkey, 27, 30-31, 308

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

ANZUS, 304, 312

Apex (project name), 198-199

Arafat, Yasser, 359

ARDF – see Airborne Radio Direction Finding

Armacost, Michael, 393

Armed Forces Communications Electronics Association (AFCEA), 238

Armed Forces Security Center (Thai security organization), 35, 364

Armstrong, Anne, 265

Army Security Agency (ASA), 1, 9, 25-27, 31, 33, 35-37, 53-57, 70-73, 85, 166, 226-228, 245, 278-79, 390

Arneson, Michael, 404

Arnold (ship name), 335

AROF (A Remote Operations Facility), 49-51

ARPANET, 155, 157

Arthit Kamlang-Ek, 365

ASA – see Army Security Agency

Asghari – see AK reports

Ashworth (project name), 219, 223

Ashworth/Marlberry (project name), 215

Asmara, Ethiopia (see also Kagnev station; USM-4, USF-796), 27, 31, 33-34, 134, 279, 306

ASRP – see Airborne SIGINT Reconnaissance Program

Assad, Hafez al, 183, 351

ASTW – see Agency Standard Terminal Workstation

AT&T, 83, 146, 148, 297

Athens, Greece (USA-512J, USA-518), 177

Atkinson, Richard, 238

Attain Document (exercise name), 355

Augsburg, Germany (USM-44, USN-22, USA-67), 26-27, 40, 44, 49-50, 53-54, 209, 306, 165

Austin, Frank, 61, 65

Austin, Hudson, 371

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Autodin (Automatic Digital Network), 141

Autosevocom, 142

Aviation Week, 124

Azorian (project name), 101

PL 86-36/50 USC 3605

Bad Aibling, Germany (USM-89,) 128-130, 132, 137-139, 208, 286, 307

Baker, Howard, 85, 92, 94

Baker Panel, 215

Bamford, James, 426-428

Bani Sadr, Abdul Hassan, 249

Bankhead (project name), 204

Ban Me Thuot, Vietnam, 3, 5

Banner, Roy, 85, 112

Barletta, Nicolas Ardito, 380

Barri, Nabith, 350-351

Barry, Ann, 265, 412

Bauded Signals Upgrade (project name), 192, 209-210, 215, 221-223, 411

Bayrum (project name), 301

Beachman (project name), 336

Beacon Hill, Panama, 200

Becker, Eugene, 166, 228, 311

Beecher, William, 101

Beijing, China, 227

Bell, Ernest, 291, 296

Bellfield, 143

Bell, Griffin, 104, 196

Bell Laboratories, 231, 291

Bendix Corporation, 151, 166, 308

Benhall, England, 136, 139, 287

Bennett, Donald, 87

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Bennett, Fred Warren, 413

PL 86-36/50 USC 3605

Benz, Edward, 122

[REDACTED]

Berlin, Germany (USM-620, USA-70, USM-5), 53, 124-125, 137, 219, 264, 356, 358-360, 407, 424-426, 428

Bermudez, Enrique, 389

Bernard, Richard, 54, 130, 298, 306, 310, 312

Bernstein, Carl, 79, 340

Bertrand, Gustave, 109

Beschloss, Michael, 407

[REDACTED]

EO 1.4.(c)
PL 86-36/50 USC 3605

Bien Hoa, Vietnam, 10

Bishop, Maurice, 371

Black Friday, 401

Black September, 176, 346

Black Widow Mountain, Vietnam, 55

Black, William, 66, 310

Bletchley Park, 110

Blue Spoon (military plan), 381-383

Boak, David, 124, 234, 294, 417

BND – see Bundes Nachrichten Dienst

Boardman, Norman, 71

Bogus War Message, 319

Boland, Edward, 237, 389

Boland Amendment, 389

Bolt, Beranek, and Newman, Incorporated, 155

Boone, James, 221-222

Border Patrol, 361

Boren, David, 286

Boyce, Christopher, 127-128

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Bracy, Arnold, 406

Bradlee, Ben, 415-416



Breisach, Germany, 165, 306

Bremerhaven, Germany (USN-40), 27

Brezhnev, Leonid, 118, 122, 183, 255, 317

BROF (B Remote Operations Facility), 50-51, 166, 208, 214

Brooks, Jack, 99, 296

Brownell, George, 65

Brown, Harold, 222

Brzezinski, Zbigniew, 104, 148-149, 194, 196, 202, 231, 239, 255, 257, 260, 268, 270, 317

BSU – see Bauded Signals Upgrade

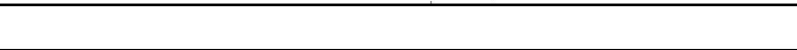
Buchwald, Art, 85

Bude, England , 33, 135-136, 287, 393

Buffham, Benson, 15, 88, 162, 191, 228, 306

Bullseye (project name), 162, 340, 362-363

Bunker, Ellsworth, 202



Burchinall, Dean, 55

Burkhalter, Edward A., 281



Bush, George, 68, 122, 193, 230, 361, 383

Caddell, Pat, 260

Cain, James, 66

Cali Cartel, 363

Callaghan, James, 198

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Calvocorresi, Peter, 110

Cameron, Alan, 6

EO 1.4.(c)

PL 86-36/50 USC 3605

Campground (project name), 124

, 219-220, 223

Canberra, Australia, 160

Canine, Ralph, 191, 224

Carillon (computer system), 152, 155

Carlucci, Frank, 197, 270, 296, 395

Carney, Jeffrey Martin, 425-426

Carson, Neil, 153

Carter, Billy, 197

Carter, Jimmy, 51, 59, 109-110, 148-149, 164, 168, 189, 193-194, 196-200, 202, 236, 245-246, 248-249, 251-252, 254-262, 263, 268, 270, 317, 349, 361, 388-389

Carter, Marshall, 87, 96, 268, 292, 427

Carter, Rosalynn, 260

CAST (Central American Support Team), 381

Castro, Fidel, 371, 388

Catfish (project name), 44

Cavern/Updike (project name), 122-123

CCP – see Consolidated Cryptologic Program)

CDC (Control Data Corp.), 120-121, 153, 157, 222, 291

Cefirm Leader (project name), 38

Cefly Lancer (project name), 38

Celenkler, Husnu, 166

Central American Support Team – see CAST

Central Intelligence Agency (CIA), 5-6, 9, 15, 45, 52, 59-61, 63-66, 80, 82, 85-87, 91, 95, 97, 99, 101-102, 104, 107-108, 104, 180, 183-185, 193-194, 196-197, 202, 224-231, 233, 245-247, 249, 253-254, 257-260, 258, 265-266, 282, 289, 295, 298-299, 302-304, 307-308, 316-317, 329 345-346, 360, 364-368, 380, 382, 384, 388-389, 391-393, 402, 411, 420

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Central Security Service (CSS), 26, 59, 61, 63-66, 70-72, 343

Cerro de Mole, 390

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

Chamorro, Violetta, 388

Chapman, Dennis, 83, 196

Chapultepec, Mexico, 227

Cheltenham, England (home of GCHQ), 120, 131, 157, 301, 407

Cheo Reo, Vietnam, 5

Chicksands, England (USA-51), 72, 159, 289, 209

Chraidi, Yasser, 359

Christopher, Warren, 259

Church, Frank, 85, 92-100, 105, 107-109, 111-112, 258, 397, 415, 426-427

CIA – see Central Intelligence Agency

CINCPAC (Commander in Chief, Pacific), 9, 63, 89, 213

Civiletti, Benjamin, 197

Clark Air Base, Philippines (USA-57), 11, 27, 36

Clark, Ronald, 110

Clark, William, 270, 289

Classic Outboard (project name), 38

Classic Wizard (project name), 421

Claytor, Graham, 296

Clef (project name), 323, 325

Clements, William P., 24-26, 41, 43, 207

Clifford, Clark, 107

Coard, Bernard, 371

Coast Guard, 105, 294

Cobra Ball (project name), 204, 320-321, 330, 334

Cobra Dane (project name), 334

Cobra Judy (project name), 334-335

COC, 141

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

[REDACTED]
COINS (Community On-line Information System), 155

Colby, William, 59, 91, 95, 127, 228, 365

Collection Operations Position Evaluation System (COPES), 25, 283-284, 288

Collins International, 33, 367

Colson, Charles, 80

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

[REDACTED]
Comfy Levi (project name), 38

Commerce Department, 148-149, 193, 237, 295-296

Compass Ears (project name), 38

Computer Security Act (1987), 294

Comsat (Soviet communications system), 33, 120, 130, 134-135, 137-139, 165, 167, 220

Comsat Corporation, 135, 137

Consolidated Cryptologic Program (CCP), 23-24, 39, 44, 53, 162-163, 192, 217, 222, 224,
230, 282-283, 285, 289

Contadora, Panama, 201-202

Conventional Signals Upgrade (CSU), 215, 215, 221-223

COPES – see Collection Operations Position Evaluation

Corps of Engineers, U.S. Army, 213

Corry, Cecil, 234

Cotter, George R., 123, 284, 293-294

Cox, Archibald, 86, 183

[REDACTED] 306

EO 1.4.(c)

PL 86-36/50 USC 3605

Cray computer, 153, 218, 222, 224, 291

Cray, Seymour, 153

Crazy Horse (project name), 382, 384, 390

CRD – see Institutes for Defense Analyses

Creek Grass (project name), 177, 179, 182

Criticomm, 141, 152

Croskery, Dale, 401

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Crowell, William P., 413-414
Cryptanalytic Processing Complex (CAP), 223
CSOC – see Current SIGINT Operations Center
CSPAR (Strategic Processing and Analysis Initiative), 340
CSS – see Central Security Service
CSU – see Conventional Signals Upgrade
Cuban Missile Crisis, 84, 145, 183, 264, 331, 387-388, 390
Culmant (enciphered signal), 338
Current SIGINT Operations Center (CSOC), 123, 152
Customs, Bureau of, 294, 361-363
Cutler, Lloyd, 259
Czechoslovakia, invasion of, 97, 117, 252, 254, 317

Da Nang, Vietnam, 5-7
Dancers, 10, 15
Daniels, Harry, 269, 294, 393, 395
Daoud, Mohammed, 251
Daring Duo, 132, 140
Darmstadt, Germany (USA-67), 26-27, 37
DARPA – see Defense Advanced Research Projects Agency
Darwin, Australia, 160-162
Data Encryption Standard (DES), 101, 232-234, 237, 239, 286, 294, 304, 309
Datotek, 392, 394
Davida, George, 234-235, 237-238
Davidov, Constantino, 374-375
Davidson, Max, 141
Davidson, Phillip, 64
Davis, Ruth, 232, 369
Daysend (computer program), 152
DCA (Defense Communications Agency), 141-142, 297

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

DEA (Drug Enforcement Administration), 105, 361, 363

Dean, John, 91

Dean, John Gunther, 8-9

Debayle, Anastasio Somoza, 388

DeBroekert, Jim, 80

Deeley, Walter, 108, 152, 155, 291, 294, 297, 395, 403, 406, 421

[REDACTED]

PL 86-36/50 USC 3605

Defense Advanced Research Projects Agency (DARPA), 155

Defense Communications Agency – see DCA

Defense Communications Satellite System – see DSCS

Defense Intelligence Agency (DIA), 18, 58, 60, 87, 180, 184-185, 141, 155, 190, 246, 248, 266, 293, 336, 339, 372-373, 376

Defence Signals Directorate (DSD), 161, 214, 302-303

Defense Special Security Communications System (DSSCS), 141, 290

Defense Supply Agency, 292

DEFSMAC (Defense Special Missile and Astronautics Center), 141, 206-230, 284, 320

deGraffenreid, Kenneth, 295, 393

Dellums, Ronald, 96

Delvalle, Arturo, 380

Deng Tsao Ping, 255-256

Denver, Colorado (USF-785), 133, 178, 282

Derwinski, Edward, 104, 197

DES – see Data Encryption Standard

Devine, John P. (Jack), 222-223

DGTS – see Directorate General of Technical Security

Dhekelia, Cyprus, 48

DIA – see Defense Intelligence Agency

Diego Garcia, 134

Diffie, Whitfield, 233-234

Digby, England, 301, 368

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Directorate General of Technical Security, 1-3, 5-6, 9, 15, 312-313

Dobrynin, Anatoly, 117

Donnelly, James, 274

Downie, Len, 415

Dozier, James, 347-349

Drake, Robert, 106, 162, 191, 243

Drawstring (project name), 41, 43

Drehpunkt Agreement, 165

Drug Enforcement Administration – see DEA

DSCS (Defense Communications Satellite System), 132, 140, 162

DSD – see Defence Signals Directorate

DSSCS – see Defense Special Security Communications System

Dubs, Adolph, 252

Duckpins (project name), 146, 148-149

Dulles, Allen, 224

Durenburger, David, 416

Dustpan (project name), 130

Eachus Committee, 215

Eagle Pull, 9, 290

Earle, Ralph, 203

Easter Offensive, 1, 3

Edzell, Scotland (USN-15), 45, 134, 208

Eitan, Rafael, 422

El Dorado Canyon, 356-357

EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

[REDACTED]
Electronic Security Command – see ESC

[REDACTED]
Ellsberg, Daniel, 80-81

Ellsworth, Robert, 230, 246

Embroidery (project name), 290

Enigma, 109-111, 216, 219, 221

Entebbe, Uganda, 49, 346

EO 11905, 199

EO 12036, 199

EPIC (El Paso Interdiction Center), 362

[REDACTED]
Eritrean Liberation Front, 31

[REDACTED]
Erskine, Hugh, 324

Ervin, Sam, 79, 91

ESC (Electronic Security Command), 72, 73, 223, 287, 289, 306, 321, 323-324, 425-426

E-Systems, Inc., 37, 245

Explorer (project name), 101

Fairchild, 145

Falklands, 299, 301, 374-377, 379

[REDACTED]
Family Jewels Report, 91

Farallon, Panama, 200, 202, 381-384

Far East Economic Review, 100

Faulkner, David, 412

Faurer, Lincoln D., 266-268, 270, 275, 292, 327, 332, 371-373, 402, 428

[REDACTED]
Federal Communications Act (1934), 83

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Fiestel, Horst, 232

Fellwock, Percy, 82-83, 85, 233

Fielding, Lewis, 80

Financial Times (London), 358

Finksburg, Maryland, 297

Firefly (project name), 297, 300

FISA – see Foreign Intelligence Surveillance Act

Fitzhugh, Gilbert W., 57-58

FLR-9 (project name), 26-27, 30, 36-37, 44, 158, 165

FOIA--see Freedom of Information Act

Ford Aerospace Corp., 132

Ford, Gerald R., 12, 16-18, 59, 79, 91, 94, 97-100, 110, 118, 127, 132, 146, 148, 190, 199-200, 263, 361

Foreign Intelligence Surveillance Act (FISA), 106-107

Foreign Technology Division (FTD), 63

Forrestal, James, 84

Fort Bragg, North Carolina, 373, 380-381

Fort Devens, Massachusetts, 70

Fort Huachuca, Arizona, 70

Fort Knox, Kentucky, 211

Fort Lee, Virginia, 283, 285

Fort Meade, Maryland, 26, 40, 43-50, 52-54, 61, 64, 122-123, 129-132, 140, 164, 180, 208, 210, 214, 227, 233, 235, 245, 250, 255, 275, 277-278, 285, 288-289, 291, 294, 325, 356, 386, 394

Fort Monmouth, New Jersey, 211

Fort Stewart, Georgia, 424

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Foxhall (project name), 151

FRA-86, 207

Franks Report, 379

Fraser, Malcolm, 161, 302

Freedom of Information Act (FOIA), 426

Frequent Wind, 10

[REDACTED]
FSCS (Future SIGINT Capabilities Study), 281-282

Fubini, Eugene, 127

Fulbright, J. William, 107

Future SIGINT Capabilities Study – See FSCS

EO 1.4.(b)
EO 1.4.(c)
PL 86-36/50 USC 3605

[REDACTED]
[REDACTED]
Gaddhafi, Muhammad, 175, 347, 354-356

Galtieri, Leopoldo, 374-375

Gannett, E.K., 235

GAO – see General Accounting Office

[REDACTED]
[REDACTED]
Gayler, Noel, 9-12, 21, 55, 60-61, 63-65, 87-89

GCHQ – See Government Communications Headquarters

GCSB (Government Communications Security Bureau), 304

Gelb, Lawrence, 81

General Accounting Office (GAO), 141

General Austerity in Government Expenditures Act, 21

General Services Administration (GSA), 273, 294-295

[REDACTED]
GE – see General Electric

General Dynamics Corporation, 145

EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)

General Electric Corporation (GE), 145

[REDACTED]

[REDACTED]

Gesell, Gerhard, 397

Ghorbanifar, Manucher, 392

[REDACTED]

Glenn, Thomas, 3, 9-10, 12

Glomar Explorer (project name), 101

Godding, Terence, 70

Golden Triangle, 273, 363-365

Goldwater, Barry, 92, 94, 265-266, 391

Goodfellow AFB, Texas, 72, 211-212, 425

[REDACTED]

Gorbachev, Mikhail, 428

Gordievsky, Oleg A., 319

Gore, Albert, 107

[REDACTED]

Government Communications Headquarters (GCHQ), 46, 52, 83, 111, 119-120, 131, 135-136, 157-162, 164-165, 198, 234, 299-302, 304-305, 307, 375-379, 392, 407-408, 424, 427

Graham, Daniel, 180, 184

Graham, Katherine, 416

[REDACTED]

Green Bank, West Virginia, 135

Greenville, Texas, 37

Grenada, 267, 297, 371-374, 379, 385

[REDACTED]

GROF (G Remote Operations Facility), 48-49, 246, 346

Grumman Corporation, 145

G Tennis Operations Facility (GTOF), 47-48

GTOF - see G Tennis Operations Facility

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Guam (USN-11), 15, 134, 283
Guantanamo, Cuba (USN-835), 362
Guardrail (project name), 55, 390
Guillaume, Guenter, 165
Gulf of Tonkin Crisis, 390
Gunman (project name), 402-403, 406

Habash, George, 176
Habib, Phillip, 34, 103
HAC – see House Appropriations Committee
Hagelin, 82, 158
Haig, Alexander, 296
Haldeman, Robert, 88
Hall, Albert, 24, 26, 39-41, 45, 64, 228, 231
Hall, James, 424-426

[redacted]
Hamper (project name), 146
Hanoi, 3, 5, 7, 9, 117, 160, 255
Harris Corporation, 33, 47, 54, 312-313
Harrogate, England (see also Menwith Hill Station; [redacted])

[redacted]
Hart, Gary, 92
Hart, Phillip, 92
Harvest (project name), 48-49, 151
Hasenfus, Eugene, 387, 391

[redacted]
Hausman, Arthur H., 223
Haver, Richard, 415
Hawke, Bob, 302-304
Hay-Bunau-Varilla Treaty, 199

PL 86-36/50 USC 3605

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Hebern, F. Edward, 107

Hellman, Martin, 233-234, 238

Helms, Jesse, 381

Helms, Richard, 58-59, 85, 87, 101, 105, 122

Hermann, Robert, 39, 66-68, 133, 283-284

Hersh, Seymour, 91, 333, 381, 415

Heyman, Michael, 237

Hezbollah, 349

[REDACTED]

Hinsley, Harry, 110

Hodgson, Dudley (Butch), 412

Hoherbogen, Germany, 54

Holder (computer program), 152, 290

Holloway, Bruce, 190

Holmes, Jasper, 110

Holystone (project name), 100

Homestead, Florida (USN-838, USA-71), 208, 225, 362-363, 376

Honecker, Eric, 428

Honeywell, 152, 155

Hong Kong, 16, [REDACTED]

Hoover Commission, 57

Hoover, J. Edgar, 87-88, 106

Hope, R.M., 161

[REDACTED]

Horn, Joseph, 38-40

OGA [REDACTED]

Houghton-Mifflin Company, 426

House Appropriations Committee (HAC), 226, 228-230

House Permanent Select Committee on Intelligence (HPSCI), 104, 108, 237, 389, 396

Houston, Lawrence, 107

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Howard AFB, Panama, 382

Howard, Edward Lee, 411-412

HPSCI – see House Permanent Select Committee on Intelligence

Huber, Lawrence, 222

Huddleston, Warren, 92

Hue, Vietnam, 5

Hughes Tool Company, 41

Hughes, Harry, 292

Hughes-Ryan Amendment, 389

Humphrey, Hubert, 80

Hun Sen, 254

Hunt, Howard, 80, 375

Huntington, Samuel, 246

Hussein, King Ibn Talal El-Hashim, 161, 176, 424

Huston, Tom Charles, 87-88

Hypercan (computer program), 153

[REDACTED]

IATS (Improved AG-22 Terminal System), 50, 141, 152, 209

IBEX (project name), 245-246

IBM (International Business Machines), 41, 142, 145, 148, 152, 210, 232, 289-291, 403

IC staff – see Intelligence Community staff

IDDF, 141, 152, 290

IEEE – see Institute of Electrical and Electronics Engineers

Ieng Sary, 18

[REDACTED]

[REDACTED]

Immigration and Naturalization Service, 361

Indo-Pakistan War, 129

[REDACTED]

EO 1.4.(c)
PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Inman, Bobby R., 71-72, 89, 104, 111-112, 149, 164, 167, 189-193, 196-199, 207-211, 221-224, 230-231, 234-241, 248-249, 253, 263, 265-266, 282-283, 293, 295, 300, 375, 395, 406

INSCOM (Intelligence and Security Command), 70-73, 223, 279, 306, 376, 424

Institute of Electrical and Electronics Engineers (IEEE), 233, 235

Institutes for Defense Analyses/Communications Research Division (IDA/CRD), 80, 219

Intelligence and Security Command – see INSCOM

Intelligence and Threat Analysis Center (ITAC), 70

Intelligence Center Pacific (IPAC), 5

Intelligence Community (IC) staff, 59, 185, 221, 293

International Traffic in Arms Regulation (ITAR), 235

IPAC – Intelligence Center Pacific, 5, 18

Iraklion, Crete (USA-36), 72

Iran-Contra, 270, 368, 381, 387, 392, 395-397

Isla de Tigre – see Tiger Island

ITAC – see Intelligence and Threat Analysis Center

ITAR – see International Traffic in Arms Regulation

ITT (International Telephone and Telegraph), 297

Ivy Bells, 410, 413, 415-416

Jackson, Henry M., 118

Jaruzelski, Wojciech, 316-317

Jason Panel, 406

JCS – see Joint Chiefs of Staff

Johnson, Louis, 84

Johnson, Lyndon Baines, 85, 117, 195, 200

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

OGA

Joint Chiefs of Staff (JCS), 177, 182, 267, 292, 297-298, 248-249, 300, 319, 371-373, 379, 381, 393

Joint Intelligence Committee (JIC), 383

Jones, David, 248

JOPS (Joint Operations Processing System), 131-132, 408

Jordan, Hamilton, 260

Joyce, Jack, 124

Just Cause (military operation), 148, 225, 227, 237, 255, 257, 319, 348, 361, 379, 384, 388, 392

Justice Department (U.S.), 84, 103, 148, 161, 197, 362, 416, 424, 427-428

Kadena Air Base, Okinawa (USA-522), 37

Kagnew Station (see also Asmara, Ethiopia; USM-4, USF-796), 33-34

Kahn, David, 100-101, 233, 237, 367

KAL-007, 265, 319-321, 327, 329-330, 332-333

Kalb, Marvin, 83

Korean-American Regional Support Center (RSSC-K), 306

Kosygin, Alexei, 81

Kreps, Juanita, 193

Kriangsak Chamanand, 166

Krogh, Egil (Bud), 80

Kuklinski, Ryszard, 316-318

Kunia (USM-2, USA-32), 166, 210-214, 279

KW-7, 127, 297, 417, 420-421

KW-26, 150-151, 297

KW-37, 417, 420

KY-3, 150, 421

KY-8/28/38, 143, 421

La Belle Discoteque, 264, 303, 354, 356-357, 359-360, 366, 368, 416

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

EO 1.4.(b)

[REDACTED] 146

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
La Finca, 225Laird, Melvin, 60-61, 103, 406
[REDACTED]

Lange, David, 304

Langley, Virginia, 59, 64, 162, 179, 194, 199, 225-226, 228-230, 245, 247, 316-318, 392

Lantz, Terry, 324-325

Larson, Doyle, 73
[REDACTED]Lee, Daulton, 411
[REDACTED]

Lenin, Vladimir Ilich, 251, 315

Leuchai, 36

Levi, Edward, 106

Levin, Meyer (Mike), 240, 428

Lewin, Ronald, 110

Liberty (ship name), 182, 333

Libya, 175, 250, 264, 303, 355-357, 359-360, 416

Liddy, G. Gordon, 80

Linowitz, Sol, 202

Lippo, Chet, 100

Little, Arthur H. Company, 136, 192

Little Sai Wan, Hong Kong, [REDACTED]

Lloyd's Bank, 232

Lodestar (computer program), 153

Lockheed Missile and Space Corporation (LMSC), 41, 80, 148, 282
[REDACTED]

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Lonetree, Clayton, 406

Lon Nol, 7,9

Lord, Charles R. (Dick), 303, 327-328, 333, 346, 359, 395

Lourdes, Cuba, 257

[REDACTED]

EO 1.4.(c)
PL 86-36/50 USC 3605

Lucifer (computer algorithm), 232

[REDACTED]

Lutwiniak, William, 207

Lynch, Mark, 427-428

PL 86-36/50 USC 3605

[REDACTED]

MAC – see Military Airlift Command

MACV, 5

Magnuson, Warren, 235

[REDACTED]

Makarios (Archbishop), 27, 46

Manchester Guardian, 82

[REDACTED]

Marafiq, al, 355-356, 359

Marienfelde, Berlin (USA-70), 425

Markle, Donald E., 348

[REDACTED]

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

[REDACTED]
Marshall (George C.) Library, 426-428

Martin, David, 353, 365

Martin, Graham, 9-10, 14

Martin-Marietta Corporation, 245

[REDACTED]
Marychurch, Peter, 301, 308

[REDACTED]
Masterman, John, 109

[REDACTED]
Matlock, Jack, 407

Mauborgne, Joseph, 83, 86

Mayaguez, 15-18, 106

McCain, John, 63

McCord, James, 79

[REDACTED]
McFadden, George, 221

McFarlane, Robert M., 270, 354, 397

McMahon, John, 284

McMathias, Charles, 92

McNamara, Robert, 107-108

[REDACTED]
MCSF – see Mobile Cryptologic Support Facility

MEAR (Maintenance, Engineering and Architecture) Team, 289

Medina Air Base, Texas, 39, 214, 362, 390

Meese, Edwin, 270

Melpar (contractor), 47, 390

EO 1.4.(c)
PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Mengistu Haile Miriam, 31, 33, 354

Menwith Hill Station (see also Harrogate, England; [redacted])

[redacted]
Menzies, Robert, 159

[redacted]
Mexico City, Mexico, 227, 366

Meyer, Joseph, 235-236

Military Airlift Command (MAC), 11

Military Sealift Command, 334

Miller, Carl, 295

[redacted]
Minaret, 83-86, 94, 98

[redacted]
Mitchell, John, 85-86, 88

Mitterand, Francois, 379

Mobile Cryptologic Support Facility (MCSF), 339, 383

MODE (Monitoring of Overseas Direct Employment), 289

Moffett Naval Air Station, California, 80

[redacted]
[redacted]
Mondale, Walter, 92, 94, 149, 233

[redacted]
[redacted]
Moreau, Arthur, 393

[redacted]
Moro, Aldo, 348

Morrison, John, 53, 57, 61, 129

Morrison, Robert E., 64

Moscow Literaturnaya Gazeta, 329

Moskowitz, Jerome D. (Jerry), 222

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Mossad, 422

Mossadegh, 245

Motorola, 297

Mount Alto, Washington, D.C., 149

EO 1.4.(b)

Mubarak, Hosni, 264, 352-353

Mueller, Robert, 396

Murphy, Robert D., 65-66

PL 86-36/50 USC 3605

Muskie, Edmund, 260

NACSI – see NATO Advisory Committee for Special Intelligence

Nasser, Gamel Abdel, 176

National Bureau of Standards (NBS), 232-233, 294, 296

National Cryptologic Command, 59-60

National Institute of Standards and Technology – see NIST

National Narcotics Border Interdiction System – see NNBIS

National Operations Intelligence Watch Officer Network (NOIWON), 18

National Reconnaissance Office (NRO), 68, 90, 131, 134, 283-284, 286, 300-301

National Science Foundation, 234, 238

National Security Defense Memorandum 266, 145

National SIGINT Requirements List (NSRL), 425

National Telecommunications and Information Administration (NTIA), 237

National Telecommunications Information Security Committee (NTISC), 296

National Times, 160

NATO (North Atlantic Treaty Organization), 27, 55-56, 67-68, 124, 158, 204, 266, 300, 305, 319, 337, 347

NATO Advisory Committee for Special Intelligence (NACSI), 266, 300, 305, 306

Naval Intelligence Support Center (NISC), 422-423

Naval Investigative Service (NIS), 423

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~

Naval Research Laboratory (NRL), 135-136

Naval Security Group (NSG), 23, 45, 51, 82, 134, 136, 153, 223, 225, 367, 421, 426

NBC, 85, 319, 416

NBS – see National Bureau of Standards

[REDACTED]

Necrosis (encryption system), 413

Nedzi, Lucien, 95

Neff, Paul, 61, 153

[REDACTED]

EO 1.4.(c)

PL 86-36/50 USC 3605

Nestor (tactical voice system), 421

Newport News Shipbuilding and Drydock Company, 148

New Republic, 197

Newsweek, 99, 354

[REDACTED]

New York Post, 354

New York Times, 80-81, 91, 94, 97-98, 100, 197, 381, 415

Nhon, Pham Van, 3, 15

Nicolai, Carl, 235

Nicosia, Cyprus (USF-61, USN-16), 27, 46-48

Nidal, Abu, 355, 360

NISC – see Naval Intelligence Support Center

NIST (National Institute of Standards and Technology), 294, 296

Nixon Letter, 59, 61

Nixon, Richard, 18, 57-59, 79-81, 87-88, 105, 117, 119, 182-183, 200

NNBIS (National Narcotics Border Interdiction System), 361, 363

NOIWON – see National Operations Intelligence Watch Officer Network

Noriega, Manuel, 202, 380-381, 383-385

North, Oliver, 327, 353

Northwest, Virginia (USN-837), 142

NPIC (National Photographic Interpretation Center), 339-340

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

NRL – see Naval Research Laboratory

NRO – see National Reconnaissance Office

NSASAB (NSA Scientific Advisory Board), 153, 236, 292

NSCID (National Security Council Directive) 6, 61, 88, 185, 229, 363

NSDD (National Security Decision Directive) 145, 294-296

NSDD 178, 339

NSDD 298, 295

NSG – see Naval Security Group

NSOC (National SIGINT Operations Center), 141, 152, 155, 182, 249, 323, 333, 351, 357

NSRL – see National SIGINT Requirements List

NTISC – see National Telecommunications Information Security Committee

[REDACTED]

O'Brien, Lawrence, 80

PL 86-36/50 USC 3605

OGA

[REDACTED]

Oceanfront (computer program), 290

OCMC – see Overhead Collection Management Center

O'Donnell, James, 324

Odom, William, 257, 267-270, 273, 283, 286, 294, 301, 303, 367, 393, 395, 414-416

Office of Naval Research (ONR), 234

Offutt Air Force Base, Nebraska (USA-519), 37, 382, 390

Ogarkov, Nicolai, 254, 329-330

OGA

[REDACTED]

Olive Harvest (project name), 48-49

Olympic Torch, 11

ONI (Office of Naval Intelligence), 86, 193

ONR – see Office of Naval Research

OPEC (Organization of Petroleum Exporting Countries), 182, 345

Operation Phoenix, 10

Operations Advisory Group, 105

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

[REDACTED]
Ortega, Daniel, 388-390

[REDACTED]
OSS (Office of Strategic Services), 86, 263

OTAR (over-the-air rekeying), 297-298

Overhead Collection Management Center (OCMC), 284, 357, 376

Pacific Sierra Research, 338

[REDACTED]
PACOM (Pacific Command), 211

Page, Thomas, 120

EO 1.4.(c)
PL 86-36/50 USC 3605

[REDACTED]
Palestine Liberation Organization (PLO), 176, 197, 207, 248, 352

[REDACTED]
Pan Am 103, 325, 331, 360

Panama (USM-76, USN-18), 70, 376, 379-385, 387, 390

Panamanian Defense Force – see PDF

PARPRO (Peacetime Aerial Reconnaissance Program), 44

[REDACTED]
Parsons, Donald, 227-228

Pasta, John, 234

Pastora, Eden, 388-389

Pavlovskij, Ivan G., 252-253

PD-24, 148, 236, 296

PDF (Panamanian Defense Force), 381, 383-385

Pearl Harbor attack, 109, 180, 183, 185, 213, 254, 265, 377

Peck, Winslow – see Fellwock, Percy

Pelton, Ronald, 150, 223, 359, 366, 397, 410-416, 423, 425

Pentagon Papers, 372-373, 416

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~*Penthouse* magazine, 100

Perry, William, 39, 120, 127, 217-219, 223

Persico, Joseph, 190

Peshawar, Pakistan (USA-60), 204

Petaluma, California (aka Two Rock Ranch, USM-2), 39-40

Pezzullo, Anthony, 388

PFIAB – see President's Foreign Intelligence Advisory Board

Phillips, Cecil, 155

Phillips, Samuel, 89

Phuoc Long, Vietnam, 3

Pike, Otis, 95-99, 107-108, 111-112, 185-186, 397

Pincher, Chapman, 83

Pine Gap, Australia, 100, 160-161, 302

Platform (computer system), 155

Pleiku, Vietnam, 3, 5

PLO – see Palestine Liberation Organization

Poe, Edgar Allan, 231

PL 86-36/50 USC 3605

Poindexter, John, 270, 327, 356, 380, 393, 397

Polgar, Thomas, 9

Pollard, Anne, 423

Pollard, Jonathan Jay, 422-424

Pol Pot, 100, 254

Poppy (satellite system; 7100 series), 133-134

Popular Front for the Liberation of Palestine (PFLP), 176

Potash (project name), 158

OGA

.....

Poulo Wai Island, Cambodia, 16, 18

Powell, Colin, 393

Poznan, Poland, 299

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Preface (computer program), 152

President's Foreign Intelligence Advisory Board (PFIAB), 105, 265, 368, 406

Press, Frank, 237, 398

Preyer, L. Richardson, 237

Prime, Geoffrey, 302-303, 407-408

Public Law 86-36, 426-427

Public Law 200-135, 296

Pueblo, USS, 15, 17, 96, 420

PURPLE (code name), 94, 120, 294

Purple Dragon (project name), 142

[redacted] (project name), 158

Puzzle Palace, The, 388, 426, 428

PX-1000, 394

[redacted]

Quang Tri, Vietnam, 5

Quantico, Virginia, 283

Radiation Corporation, 54

Radio Act of 1927, 343

[redacted]

Ramasun Station (Udorn, Thailand; USM-7), 1, 17, 27, 34, 36, 50-51, 166

[redacted]

Ramparts magazine, 82

Rand Corporation, 151, 292

Ranelagh, John, 193

RASIN manual, 424

Raven, Frank, 180, 427

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

R-390, 36

RC-130, 176-177, 382, 384

RCA (Radio Corporation of America), 50, 146, 297

EO 1.4.(c)

PL 86-36/50 USC 3605

Reagan, Ronald, 78, 104, 149, 248, 263-265, 270-271, 275, 278, 294-296, 299, 302, 304, 308,
317-319, 327-329, 331-335, 343, 345-347, 349, 352, 354-357, 359, 361, 367-369, 371, 375-
376, 381, 387-389, 391, 396-397, 402, 404, 406, 416, 428

Red Brigades, 347-348

Regional SIGINT Operation Center (RSOC), 270, 306

Richardson, Elliott, 86

OGA

Rich, Robert, 268, 284, 395

Rindskopf, Elizabeth, 397, 415-416

Rivers, Mendel, 107

Rivest, Ronald, 234

Rivet Joint (project name), 26, 37

Robbins, Vernon, 54

Robelo, Alfonso, 388

Rockefeller, Nelson, 148, 150

Rockwell Corporation, 245-246

ROFA, 49, 352

Rolling Stone magazine, 100

EO 1.4.(c)

PL 86-36/50 USC 3605

Rosenblum, Howard, 88, 143, 232

Rosman, North Carolina (USF-790), 279, 287, 340, 363

Rothwesten, Germany (USM-43)

RSA (computer algorithm), 234, 238

RSOC - see Regional SIGINT Operation Center

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

[REDACTED]
Rusk, Dean, 117

Russell, Richard, 107

Rye (computer complex), 152

Ryan, Operation, 319

[REDACTED]
Saadi, William, 155

[REDACTED]
Sabertooth II (project name), 35

SACEUR (Supreme Allied Commander Europe), 68

Sadat, Anwar, 176, 178, 182-183

Saddam Hussein, 161

[REDACTED]
Safford Yacht Sales, 411

Saigon, Vietnam, 1, 3, 5-7, 9, 11, 15-17, 34

SAINT (SIGINT Against International Narcotics Trafficking), 362

SALT (Strategic Arms Limitation Talks), 117-119, 127, 164, 202, 204, 220, 257-258, 334-335

Sampson, Nicos, 46

Sandino, Augusto Cesar, 387

Sandinistas, 381, 387-389, 391-392

San Vito dei Normanni, Italy (USA-62); alt. place-name Brindisi, 30, 72, 208

Saracen, 365

Sausnock, Joseph, 325

[REDACTED]
Saville, 143, 158

Schmults, Edward, 348

Schofield Barracks, Hawaii, 213

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

Schorr, Daniel, 97

Schlesinger, James, 58-59, 65, 88-90, 95, 122, 127, 267, 406

[REDACTED]

[REDACTED]

Schwartz, Daniel, 192

Schweiker, Richard, 92

Scowcroft, Brent, 51

SDC, 292

Secret Service, 84, 105

Selassie, Haile, 31

Senate Select Committee on Intelligence (SSCI), 104, 108, 286, 389, 416, 421

[REDACTED]

OGA

[REDACTED]

[REDACTED]

EO 1.4.(c)

PL 86-36/50 USC 3605

Shamir, Yitzhak, 234, 238

Shamrock, 83, 93-94, 98, 106

Shanghai, China, 227

Shannon, Claude, 231

Shan United Army (SUA), 363-364

SHAPE (Supreme Headquarters Allied Powers Europe), 68, 305

Shapley, Deborah, 235

Sheehan, Neil, 80

Shell Oil, 6

Shemya, Alaska (USF-799), 25, 204, 279, 320, 334

Sherman (computer program), 153

Showplace (project name), 146

Shu Lin Kou, Taiwan (USA-69, USM-79), 51, 166

Shultz, George P., 327, 352, 393, 416

Sick, Gary, 260

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

Sidekick (project name), 49

SIGDASYS (SIGINT Interconnected Data System), 305

[REDACTED]

SIGINT Overhead Reconnaissance Subcommittee – see SORS

Signal Intelligence Service (SIS), 83, 120

[REDACTED]

Silver, Daniel, 236

Singapore, 16, 160

Sinop, Turkey (USM-49, USN-23), 50, 166, 334

Sirica, John, 79

[REDACTED]

Smith, William French, 347

Snodgrass, Charles, 229-231

Sokolov, Sergey, 252-253

Solidarity, 315, 317

Somoza, Anastasio, 387-388

[REDACTED]

SORS (SIGINT Overhead Reconnaissance Subcommittee), 376

SOSUS, 335, 421

South Florida Task Force, 361

Spadafora, Hugo, 380

Speakes, Lawrence, 327, 355

[REDACTED]

Spectre, 359-360

Speierman, Kermit, 155, 291-292

[REDACTED]

Sperry Rand Corporation, 145

[REDACTED]

Spintcom, 141

SSA (Special Support Activity), 249

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//XT~~

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

SSCI – see Senate Select Committee on Intelligence

Stapleton, Carl, 63-64

Stasi, 359

State Department (U.S.), 145, 149, 163, 183, 246, 249, 251, 257-259, 270, 289, 299, 328, 346, 351-352, 359-361, 364, 366, 376, 380, 401, 402, 404, 416, 424

Stationar (Soviet comsat system), 138

Stethem, Robert, 350

Stevenson, Adlai, 331

Stonehouse (project name), 134, 306

Stone, Richard, 100, 257

Strategic Arms Limitation Talks – see SALT

Strawhat (communications system), 141

Streamliner (communications system), 142

STU-I (Secure Telecommunications Unit-I), 143, 150

STU-II, 143, 150, 260, 296-297, 300

STU-III, 150, 234, 297, 300

Studeman, William, 270, 395

PL 86-36/50 USC 3605

Sudden Dawn (project name), 336

Sunday *Los Angeles Times*, 317, 328

Sundial (project name), 339

Supercomputer Research Center, 154, 292

SUSLO (Senior U.S. Liaison Officer), 191

Sullivan, Brendan, 397

Sullivan, William, 36

Sulzberger, Arthur, 197

EO 1.4.(c)
PL 86-36/50 USC 3605

Sylvania Corporation, 245, 345

Szulc, Tad, 153, 233

~~TOP SECRET//COMINT//UMBRA//TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

[REDACTED] PL 86-36/50 USC 3605

Taft, William, 267, 270, 292

Taft, William Howard, 387

Talon Vice, 10-11

Ta Mok, 18

Taraki, Nur Mohammed, 251-253

TAREX (Target Exploitation), 70, 72, 339-340, 343

Target Exploitation – see TAREX

Task Force 157, 193, 339, 361

Tass, 328

Tate, Raymond, 146, 427

TCOF – see Transient Collection Operations Center

TDOA – see time difference of arrival

Teaball (project name), 72

TEBO (equipment type), 30, 223

Tehran, Iran [REDACTED]

Teletype Corporation, 209-210, 289

Tempest (project name), 401, 404

TENCAP, 68

Tennis (project name), 25, 38, 39-41, 44, 46-47, 51, 53

Ten Thrusts, 269

Tet Offensive, 259

Teufelsberg, Berlin (USM-620, USM-5), 356

Thatcher, Margaret, 375, 377-379

Theater Support Node, 270

Thieu, Nguyen Van, 5, 9

Thornburg, Richard, 397

EO 1.4.(c)
PL 86-36/50 USC 3605[REDACTED]
Tide (computer system), 152, 155, 249

Tiger Island (Isla de Tigre), 390

~~TOP SECRET//COMINT UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Tighe, Eugene, 190

Tidemark (project name), 31

[REDACTED]

Time difference of arrival (TDOA), 133

[REDACTED]

Todendorf, Germany (USN-17), 26-27

Tomba, Joseph, 99

Toon, Malcolm, 401

[REDACTED]

Tordella, Louis W., 86, 101, 130, 132, 137, 162, 191, 224, 293

Torii Station, Sobe, Okinawa (USM-3), 37

[REDACTED]

Torrijos, Omar, 200, 202, 380-381, 387-388

Tovey, Brian, 198

Tower, John, 92, 94, 275

Trainmaster (project name), 290

Transient, 288

Transient Collection Operations Center (TCOF), 139

Triangle (project name), 270

Trimble, Norman, 179

Troodos, Cyprus, 49, 177

Truman, Harry S., 84, 108-109

TRW, Inc., 282

Tuchman, Walter, 232

[REDACTED]

Turner, Stansfield, 89, 104, 149, 164, 193-194, 196-199, 202, 316, 248-249

Tuttle, Jerry, 298, 300

Tuy Hoa, Vietnam, 5

TWA 847, 349-350

PL 86-36/50 USC 3605

EO 1.4.(b)

EO 1.4.(c)

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

UKUSA (U.K.-USA) Agreement, 82-83, 100-101, 162, 165, 198-199, 266, 302-303, 305, 307

[REDACTED]

United States Intelligence Board (USIB), 85, 180, 199, 245, 293

United States Air Force Security Service (USAFSS), 9, 11, 17, 23, 25, 27, 29, 30, 37, 51, 55, 63, 72-73, 82, 210-211, 227-228, 410

United States Communications Security Board (USCSB), 296

United States Support Activities Group (USSAG), 5

Univac, 152-153

[REDACTED]

UNIX, 291

Ursano, James J., 69-71, 227

Urgent Fury (military operation), 373, 379-380

USAFSS – see United States Air Force Security Service

USAINTA (U.S. Army Intelligence Agency), 70

USIB – see United States Intelligence Board

[REDACTED]

U.S. News and World Report, 358

USSAG – see United States Support Activities Group

USSID 9, 381

USSID 18, 103, 106, 347

EO 1.4.(c)
PL 86-36/50 USC 3605

[REDACTED]

Vance, Cyrus, 24, 26, 203, 258

Vandenberg (ship name), 335

Van der Rhoer, Edward, 110

Veil (cover name), 265, 308, 355

Vessey, John, 371-373

[REDACTED]

Village Voice, 97

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Vinson (communications device), 143-144, 158, 297

Vinson, Carl, 107

Vint Hill, Virginia, 376

Vitro Laboratories, 148

Vladivostok Accords, 118-119, 202, 409

Vogt, John, 198

[REDACTED]

Wadi Kina, Egypt, 248-249

Wagner, Marlin, 220-221, 223, 411

Walesa, Lech, 315

Walker, Arthur, 420

Walker, Barbara, 417

Walker, John, 298, 366, 413, 417-423

Walker, Michael, 420

Walker, Stephen, 155, 293-295

[REDACTED]

Wall Street Journal, 391

Walsh, Lawrence, 396-397

Waltham, Massachusetts, 297

Ward, William, 299

Ware, Willis, 151, 153, 292

Warren Commission, 84

[REDACTED]

Washington Post, 79, 100, 124, 190, 353-354, 368, 415-416

Washington Star, 319

Watch List, 84-85, 94

Watson, Jack, 260

Weathermen, 85

Webster, William, 286, 303

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Weinberger, Caspar, 267, 270, 294, 393

Weisband, William, 414

Welchman, Gordon, 110

Western Union, 83, 336

Weyand, Frederick, 69

White House, 9, 11, 15, 79-80, 84, 87-88, 91, 102-106, 109, 118, 144-145, 148-149, 180, 189-190, 193, 194, 196, 199, 202, 231, 236, 248-249, 253-255, 257-260, 263, 264, 268, 270, 294, 295, 325-328, 332-333, 352, 354-355, 366, 392-395, 403

White House Situation Room, 196

Whitlam, Gough, 127-128, 159-161, 302

Whitworth, Jerry, 420-422

Wicker, Tom, 85

Williams, David, 33-34

Windjammer (project name), 44

Winterbotham, Frederick, 109-111

Winter Harbor, Maine (USN-20), 134

Wise, Phil, 258, 260

Wobensmith, John, 393-395, 402, 404

Wolf, Markus, 165

Woodward, Bob, 79, 190, 265, 308, 355, 415-416

World Airways, 6

Wright-Patterson AFB, Ohio, 72

Wurmberg, Germany, 54

.....

Yagur, Joseph, 423

Yakima, Washington

..... Yarborough, William P., 85

Yardley, Herbert O., 82

Yellowfin (project name), 297

Yerolakkos, Cyprus, 45

PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~

Yildirim, Hussein, 424-425

Yom Kippur War, 83, 96-97, 127, 129, 259, 336

Young Americans for Freedom, 87

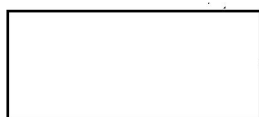
Young, Andrew, 197

Young, David, 80

Young, Richard G. (Snoop), 50

Young, Whitney, 85

Yurchenko, Vitaly, 409-412, 421



PL 86-36/50 USC 3605

~~TOP SECRET//COMINT-UMBRA/TALENT KEYHOLE//X1~~