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Cryptologic Quarterly

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Cover: Close-up of the American flag displayed in a barn at the Pry House Field Hospital Museum near Antietam, MD. Article on page 37. Photograph taken by NSA Official Photographer, Ryan Wetzel.

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The Editor's View

The work of cryptology—both achievements and failures—often must remain "inside the building" (NSA slang for unavailable to the public). Specialty skills that take years to develop may not be easily understood—if they can be discussed at all—outside of the Agency's discreet ecosystem. Internally, we have the means to preserve hard-earned knowledge and to recognize the people behind the work.

But for those of us in the cryptologic world ever-present questions linger, including: What can we share "outside the building"? And, in an environment where so much is secret by necessity, what will our legacy be?

Joining the Center for Cryptologic History (CCH) has expanded, and continues to expand, my view of both questions. As the new executive editor, I am also beginning to learn about you—our readers outside—and the breadth of CCH's written works. My predecessor introduced our last issue with an Editor's View entitled "Human Stories All." Her words frequently come to mind. Each publication is part of our larger persistent memory, an impression of the people and the significance of their efforts.

In this issue, we offer you four very different takes on legacy in cryptology: one quest for public discourse, one speech elevating the efforts of many, one remembrance of extraordinary endurance, and one set of lessons today's leaders continue to grow from.

Patrick Bomgardner's "The Bizarre Case of Wayne Barker and the National Security Agency" details the story of a man who attempted both to protect and to reveal cryptologic knowledge. Barker and his Aegean Park Press shed light on how difficult it can be to safeguard national security and to provide as much transparency as possible. To learn how the Agency tackles this task today, the 2021 *CQ* articles "Where Did They Come From? Why Classification Advisory Officers Are Unique to NSA" by Bomgardner and "Pulling Back the Curtain: NSA's 50-Year Path to Transparency" by Sarah Parsons are excellent companion pieces.

In "Women in Cryptology," retired NSA Deputy Director Ann Caracristi (1921–2016) recounted her experiences at Arlington Hall Station during World War II. Her vignettes underscore the curiosity, grit, and teamwork necessary for cryptologic success. To learn more about this time and the women known as "code girls," we suggest Jennifer Wilcox's *Sharing the Burden: Women in Cryptology during World War II*, available online or hardcopy through nsa.gov. Caracristi's thoughts on the 1998 exhibit for which she provided this keynote speech, as well as the young National Cryptologic Museum (NCM), are a bit prophetic. Twenty-five years since her address, the workforce continues to tackle hard challenges, and as a result CCH and the NCM have recognized many more of NSA's own.

Though her memories do much to illuminate this time for us, Caracristi cautioned that her perspective was only one of so many. In "Signalman's Odyssey," Technical Sergeant Michael Maslak, US Army, brings us to the Philippines in 1941–1942 to share his. Maslak tells of his unit's successes, but also a harrowing journey to evade capture and survive following the surrender of Corregidor. His account is both a testament to the value of radio intelligence and an enduring remembrance of the men with whom he served.

Military intelligence has been a perilous field throughout much of our country's history, and at the Agency we strive to learn from the stories of our predecessors. As you may have noticed, this is not limited to the lifespan of NSA itself. To conclude this issue, we offer a family album about a recent Civil War staff ride. These rides, paired with a classroom lecture, allow employees to explore case studies focused on the human elements of intelligence—from the gathering and protection of information to the importance of relationships and basic care.

Whether it's protecting secrets, cracking codes, or keeping up morale in dire times, the work and the people both matter.

E. H.
Executive Editor

The Bizarre Case of Wayne Barker and the National Security Agency

Patrick Bomgardner

Wayne Griswold Barker (1922–2001), a self-described retired lieutenant colonel in the Signal Corps with an intelligence background, former special forces, radio amateur, commercial pilot, and polyglot, was no stranger to the National Security Agency (NSA).[1] During World War II, Barker served with the US Army's Signal Intelligence Service (SIS), a predecessor to NSA. He had been officer in charge of the research section in the SIS China-Burma-India Theater in New Delhi in 1944 where Master Sergeant William Lutwiniak worked in the high echelon section and First Lieutenant Lambros Callimahos headed up the weather section.[2] Lutwiniak, a William Friedman recruit to the SIS, and Callimahos, a future NSA Cryptologic Hall of Honor inductee, would go on to have storied NSA careers in cryptanalysis, while Barker took a different path to cryptologic notoriety. Barker always strove, but never quite succeeded—at least not inside NSA—to be regarded as a serious cryptologist. He went to great lengths to impress NSA directors while inadvertently frustrating the NSA security apparatus. This is Barker's story.

Thirty-seven years after the end of the war, Lutwiniak said it came as a blow when Barker cropped up after all those years running Aegean Park Press and publishing NSA's treasured documents for profit. He recalled Barker as "a very obnoxious character, tremendous ego," who desperately wanted to be a cryptanalyst when he separated from the army. "But he wasn't very good, and he had just entirely the wrong

Wayne, Rudy, and the NSA

Wayne Barker's dogged pursuit of a cryptologic career included convincing Rudolf F. (Rudy) Lauer to write a book—and not just any book. After earning a doctorate in organic chemistry from the MIT, Lauer worked at a pharmaceutical company. Personal computers and cryptography were only hobbies for Lauer until Barker, the owner of the niche publishing house Aegean Park Press, talked him into writing *Computer Simulation of Classical Substitution Cryptographic Systems*. Barker advised Lauer to submit a draft to NSA for review, along with a job application. The book, which contained BASIC programs—cutting edge stuff for 1981!—that permitted personal computer users to simulate virtually every classical substitution cipher system from simple substitution to the Hagelin (M-209) and Enigma rotor machines on a microprocessor, was one of the reasons NSA hired Lauer.

Later that year, Barker attempted to ingratiate himself, somewhat at Lauer's expense, with newly appointed NSA Director, Lieutenant General Lincoln Faurer, USAF, with a congratulatory letter. He attached the promotional material for *Computer Simulation*, the most recent addition to Aegean Park's Cryptographic Series. Barker assured Faurer that he always tried to protect the interests of NSA and the United States. For instance, because he did not want to publish anything that NSA might consider inadvisable, Barker deleted from Lauer's book "information that concerned a possible method of stepping the rotors in a rotor-type cipher machine; the author had somehow hit upon the method of stepping rotors in the now ancient SIGABA cipher machine."

This wasn't the first time Barker attempted to connect with NSA, albeit through Rudy Lauer. Barker and his Aegean Park Press would prove to be a particularly determined thorn in the Agency's side.

Source

Wayne G. Barker, Aegean Park Press, letter to Lieutenant General Lincoln D. Faurer, Director National Security Agency, June 29, 1981, NSA Archives, Accession 49422, Reference ID A3229845.

American officers in New Delhi, February 1945. Wayne Barker is on the left in the front row. CCH Collection.

attitude," explained Lutwiniak, who described Barker as selfish, territorial, and insecure—a "thoroughly obnoxious guy."[3]

Callimahos apparently didn't think too highly of his former colleague's cryptologic prowess either. In the summer 1961 *NSA Technical Journal*, Callimahos reviewed Barker's new book, *Cryptanalysis of the Single Columnar Transposition Cipher*, published in Tokyo, Japan, by Charles E. Tuttle. "This book," he wrote, "is remarkable for the painful elaboration of the perfectly obvious" and added "the technical content may be characterized as one big lacuna riddled with many gaps." Callimahos lamented the poor use of English: "The writing abounds in tautologisms, circumbendibusses, periphrases, grammatical errors, and just plain syntactical ignorance … The author," he noted, "is not an amateur; he was a member of the U.S. Army's Signal Intelligence Service in Washington and in India." Callimahos concluded, "It is without question the worst work on a cryptologic subject in any language this reviewer has had the good fortune to examine."[4] It's unknown if Barker ever saw this scathing, yet entertaining, review by his old colleague, but the review became one of the handouts for Callimahos's famous NSA course CA-400 "Intensive Study Program in General Cryptanalysis."

Agean Park Press Launches

A dozen years after Callimahos's review, Barker founded Aegean Park Press in Walnut Creek, California. The niche publisher, operating mostly by mail, reprinted non-copyrighted cryptologic works of US government personnel, including pioneers Parker Hitt, William Friedman, Solomon Kullback, and Barker's World War II compatriot Callimahos. The press also offered materials covering military intelligence, Mayan languages, and the game of bridge.[5] Meyer J. "Mike" Levin, who headed NSA's information security program in the 1980s and was responsible for prepublication reviews, characterized the Aegean Park Press Cryptographic Series as basically anything that Barker could get ahold of that NSA had declassified and released to the National Archives.[6]

Aegean Park Press started to build its cryptographic catalog in October 1974 when NSA Director Lieutenant General Lew Allen, USAF, gave Barker permission to publish the following declassified publications:[7]

- TM 11-484, *Elementary Military Cryptography*, William Friedman, War Department, March 1945

- TM 11-485, *Advanced Military Cryptography*, William Friedman, War Department, June 1944
- *Manual for the Solution of Military Ciphers*, Parker Hitt, Army Service Schools Press, Fort Leavenworth, Kansas, 1918
- "Elements of Cryptanalysis," Training Pamphlet #3, Chief Signal Officer, May 1923
- *Manuale di Crittografia*, General Luigi Sacco, Rome, 1936
- *Cours de Cryptographie*, General Marcel Givierge, Paris, 1936
- *Traité de Cryptographie*, André Lange and E. A. Soudart, Paris, 1935

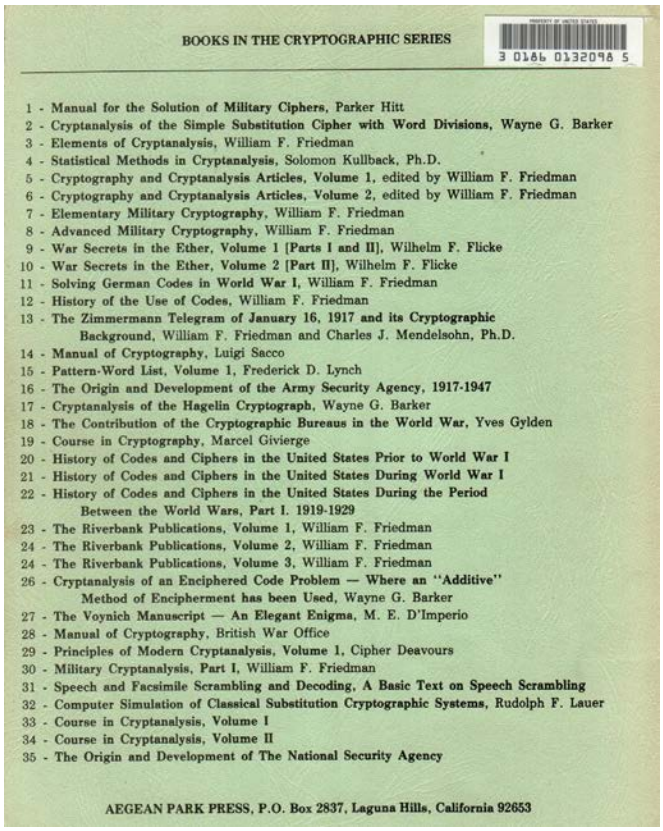
Why he needed DIRNSA's permission to use the latter three works is unclear from the available NSA records, but Barker apparently wanted to stay in NSA's good graces. He would regularly approach NSA to review books he intended to publish—for example, *Cryptanalysis of the Hagelin Cryptograph* in July 1978.

The chief of COMSEC (communications security) Standards and Evaluations, Lowell Frazer, concluded that Barker had written it "on his own without access to classified Hagelin cryptanalysis." He found it to be "pretty good" but not up to the level of US/UK Hagelin cryptanalysis from the late 1940s. It added nothing to the elementary solution techniques already available in open source works by Kullback or Abraham Sinkov. Peter Jenks, deputy chief of G Group (the NSA organization responsible at that time for signals intelligence [SIGINT] from all countries other than China and the Soviet Bloc), concurred with Frazer's findings and noted that he'd been in contact with Barker who "would be glad to have NSA review future items prior to publication, if we so desired."[8]

The Problem of Cryptologic Information in the Civilian Sector

In his June 1981 letter to NSA Director Lieutenant General Lincoln Faurer, USAF, Barker bemoaned the fact that NSA provided virtually no guidance on how Aegean Park Press should go about "sanitizing" its books, but at the same time issued "pious statements" about the evil effects of the scientific community delving into cryptologic subjects. People in the scientific community had asked Barker's opinion on various issues, but not once had NSA called or written to him about releasing cryptologic information in his publications. It was a mistake, Barker told Faurer, "that NSA does not care what we publish or what we do." He offered to come to Fort Meade to discuss the "entire problem of cryptologic information in the civilian sector."[9]

Faurer sought advice from NSA's General Counsel (GC) who informed the new DIRNSA that NSA was well aware of Barker's publications program—including the reprinting of many declassified government works—but had found no occasion when it was necessary to provide formal advice. The GC thought it would be useful to meet with Barker, if Faurer agreed.[10] In his official reply, Faurer told Barker that NSA would be happy to meet with him "to discuss such matters with you and to provide guidance as to our views about publishing materials



BOOKS IN THE CRYPTOGRAPHIC SERIES

1 - Manual for the Solution of Military Ciphers, Parker Hitt
2 - Cryptanalysis of the Simple Substitution Cipher with Word Divisions, Wayne G. Barker
3 - Elements of Cryptanalysis, William F. Friedman
4 - Statistical Methods in Cryptanalysis, Solomon Kullback, Ph.D.
5 - Cryptography and Cryptanalysis Articles, Volume 1, edited by William F. Friedman
6 - Cryptography and Cryptanalysis Articles, Volume 2, edited by William F. Friedman
7 - Elementary Military Cryptography, William F. Friedman
8 - Advanced Military Cryptography, William F. Friedman
9 - War Secrets in the Ether, Volume 1 [Parts I and II], Wilhelm F. Flicke
10 - War Secrets in the Ether, Volume 2 [Part II], Wilhelm F. Flicke
11 - Solving German Codes in World War I, William F. Friedman
12 - History of the Use of Codes, William F. Friedman
13 - The Zimmermann Telegram of January 16, 1917 and its Cryptographic Background, William F. Friedman and Charles J. Mendelsohn, Ph.D.
14 - Manual of Cryptography, Luigi Sacco
15 - Pattern-Word List, Volume 1, Frederick D. Lynch
16 - The Origin and Development of the Army Security Agency, 1917-1947
17 - Cryptanalysis of the Hagelin Cryptograph, Wayne G. Barker
18 - The Contribution of the Cryptographic Bureaus in the World War, Yves Gylden
19 - Course in Cryptography, Marcel Givierge
20 - History of Codes and Ciphers in the United States Prior to World War I
21 - History of Codes and Ciphers in the United States During World War I
22 - History of Codes and Ciphers in the United States During the Period Between the World Wars, Part I. 1919-1929
23 - The Riverbank Publications, Volume 1, William F. Friedman
24 - The Riverbank Publications, Volume 2, William F. Friedman
24 - The Riverbank Publications, Volume 3, William F. Friedman
26 - Cryptanalysis of an Enciphered Code Problem — Where an "Additive" Method of Encipherment has been Used, Wayne G. Barker
27 - The Voynich Manuscript — An Elegant Enigma, M. E. D'Imperio
28 - Manual of Cryptography, British War Office
29 - Principles of Modern Cryptanalysis, Volume 1, Cipher Deavours
30 - Military Cryptanalysis, Part I, William F. Friedman
31 - Speech and Facsimile Scrambling and Decoding, A Basic Text on Speech Scrambling
32 - Computer Simulation of Classical Substitution Cryptographic Systems, Rudolph F. Lauer
33 - Course in Cryptanalysis, Volume I
34 - Course in Cryptanalysis, Volume II
35 - The Origin and Development of The National Security Agency

AEGEAN PARK PRESS, P.O. Box 2837, Laguna Hills, California 92653

The Aegean Park Press backlist in 1981.
CCH Collection.

affecting NSA." He suggested that Barker send future inquiries directly to Director of Policy Eugene Yeates. He thanked Barker for his interest in protecting sensitive information.[11]

About three weeks later, Barker phoned to inform NSA of his intention to publish a book titled *The Anatomy of Two Traitors (Martin and Mitchell)*. According to the memorandum summarizing the call, he also took the opportunity to tell NSA that Louis Kruh—one of the founding editors of the cryptology journal *Cryptologia*—was offering for sale over 50 publications consisting of Xerox copies of various documents, including *Military Cryptanalysis* Parts I–IV. Barker had already published Part I, but not the others because he had been informed Parts II–IV were still classified. He complained that he was being discriminated against because Kruh, who he believed obtained copies of the *Military Cryptanalysis* series from the New York Public Library, was publishing them without NSA authorization. NSA told Barker they had no knowledge of Kruh's activities. Barker said he would send NSA a list of Kruh's documents when he sent his new book. Barker also mentioned that he had received several unsigned articles of value in an unmarked envelope apparently from an unidentified NSA individual. Barker didn't expand on this, and I found no record of any NSA follow-up. The memorandum of the call noted that Barker was a member of the Phoenix Society (a private organization for retired NSA affiliates) who regularly received the *NSA Newsletter*, *Phoenix Society Flash*, and *GEBA (Government Employees Benefits Association) Hilites* in NSA stamped envelopes.[12]

Intrigue in Athens

A strange twist in Barker's relationship with NSA took place in 1983. On January 7, Barker walked in to the US embassy in Athens, announced he'd just arrived in Greece that day, and said he needed to get a message back to Washington. He explained to the duty officer that he was attempting to close a contract with the Greek intelligence service for "cryptological (sic) training," of which Michael Beecher (not further identified) and "his special group" at NSA were aware. Barker claimed that he was being shadowed by Greek representatives and advised discretion should anyone need to contact him while he was in Athens. The duty officer sent an "exclusive for" message to Mike Levin recapping the visit and noting that Barker made a point of informing him that he would never do anything to hurt the United States. The duty officer gave Barker a ride to his hotel but did not plan to contact him further.[13]

Between jaunts to Greece, Barker found time to inform NSA about a letter he'd received from disgruntled former NSA employee John Iannuzzi offering for publication a critique—based on his personal experience at NSA—of James Bamford's recently released *The Puzzle Palace: A Report on NSA, America's Most Secret Agency*.[14] Barker suspected that Iannuzzi's letter and draft book review contained classified information. Before he would consider publishing the review, he sent it to Levin's Information Security Division, which did find classified information—including TOP SECRET//SI (special intelligence)—in both the letter and book review.[15] The NSA General Counsel recommended that it be handled as a de minimis disclosure that did not require prosecuting Iannuzzi.[16] Instead, policy director Wendall B. White sent Iannuzzi a letter reminding him of his lifetime obligation to protect national security information.[17] This, the GC opined, would put NSA on firm legal ground to pursue Iannuzzi's prosecution should he publish such information in the future.[18] It does not appear that Aegean Park Press ever published the review.

Barker was invited back to Athens in April, ostensibly to discuss a suggested cipher device that his Greek contacts in the cryptologic training endeavor had asked him to consider. Before the trip, he met with a representative of crypto-device manufacturer DATOTEK and obtained literature. DATOTEK later told NSA that during that meeting, Barker dropped the names of Mike Levin and Glenn Stahly, the Techniques and Standards chief (P1), as people he worked with at NSA.[19]

When he got to Athens, Barker learned that he

was really there because of a business arrangement between his Greek contacts and the Jordanian and Iraqi governments. The Greek representatives wanted Barker to provide cryptanalysis lesson plans, published open source materials on cryptography, and advice relative to crypto equipment purchases.[20] The Jordanian representatives wanted Barker to conduct cryptologic training in Amman. Barker agreed and received several thousand dollars as an advance. While in Athens, Barker also went to the "American base" where he looked up the number of the Naval Security Group detachment, called them, and said he wanted to send a message to NSA.[21]

The fallout was swift. As soon as Barker was back in the States, Levin invited him to Fort Meade for a debriefing. Levin and an NSA lawyer told him "not to use the name of any NSA person when talking to a commercial organization such as DATOTEK, nor to suggest to anyone that he is working with NSA." They said that NSA would only deal with him to conduct prepublication review for national security reasons of any materials he intended to publish or export. They also requested he never contact any US government installation to send a message to NSA. Personal emergencies should be handled through the regional security officer at the US embassy—a service available to any US citizen. Finally, they warned him about the dangers of dealing with foreign business associates and governments.[22]

Barker later sent to NSA for review one of the lesson plans that he intended to provide his Greek contacts. NSA found it to be unclassified, but they told Barker his arrangement with the Greek government was unhelpful to the United States. Levin's recap of the debriefing prompted Faurer to ask for the GC's opinion on "whether an individual or firm providing cryptanalytic training to a foreign government is required to register as an agent of a foreign power."[23] The GC's response to DIRNSA was unavailable in the electronic archives, but neither that nor the admonitions Barker received during his debriefing appear to have deterred him from venturing to work with, or at least solicit grants from, NSA.

NSA is Watching You

Aegean Park Press published Barker's *Cryptanalysis of Shift-Register Generated Stream Cipher Systems* as number 39 in its Cryptographic Series in 1984. Future NSA Cryptologic Hall of Honor inductee and then president of consulting firm Data Handling, Inc., Dr. Richard Leibler reviewed the book in his capacity as Faurer's advisor on the "resolution of differences between NSA and researchers over papers on cryptology."[24] Although the book was billed as a "state-of-the-art textbook," Leibler described it as "elementary with no modern techniques." He found nothing of the slightest interest until chapter 13, where Barker demonstrated "the irregular stepping of a register controlled by another register." Given the book's emphasis on using personal computers for cryptanalysis, Leibler believed that NSA likely would have preferred the book had never been written. "People outside of the advanced countries," he concluded, "will be tempted to use it in courses and it is bound to improve their cryptographic understanding."[25]

That same year, Barker sent two proposals seeking NSA grants for studies of "A Cryptanalytic Attack against the Data Encryption Standard" and "Cryptanalysis of the Double Transposition Cipher." NSA declined to fund either study[26] but later found out that Barker had written and planned to publish a book about double transposition. This was brought to Levin's attention, and he requested Barker send a copy to him for review.

Glenn Stahly's Techniques and Standards office objected to the book's publication for several reasons. When properly used, double transposition was a formidable system to analyze, even with 1980s computing power. At that time important NSA targets still used the double transposition cipher, so NSA had consistently refused to declassify US material containing any details about its security or cryptanalysis. Stahly's office assessed that Barker's analysis was correct and exploited different kinds of misuse in a less sophisticated but similar way to NSA's efforts. Publishing the book, the office concluded,

"would create a COMSEC awareness on the part of the targets using double transposition and would most likely cause grave damage to our COMINT [communications intelligence] effort."[27] Stahly recommended that NSA tell Barker that publication of his book would be detrimental to national security. Further, it was not suitable for NSA use as a training aid since the Agency had more appropriate and comprehensive material of its own design.[28]

Let's Make a Deal

Barker explained the problem to Levin in a letter: He already had 400 copies of the book printed and ready for sale at $32.80 (approximately $96.65 in 2024 dollars)[29]—plus about 5,000 promotional flyers. He asked NSA to reimburse him for the copies on hand at a 20 percent discount, or $10,496 ($30,927), plus $20,000 ($58,931) to cover lost future sales. This, he said, would address the immediate problem, but Barker was more concerned about preventing something similar from happening in the future. He contended that he wasn't involved with cryptology for profit. "Cryptanalysis is my life; and really the only reason that Aegean Park Press exists is because it makes it easy for me to have an 'outlet' for my research, for my writings, etc. no matter perhaps how bad sometimes the grammar is, etc.," Barker stated. He then went on to pitch a contract cryptanalysis course that NSA would sponsor and he would administer in California, but Barker concluded such an arrangement would likely not be possible.[30]

In a 1987 oral history interview, Levin explained what happened:

> Sorry, but [Barker] should have known better than to go ahead and spend a lot of time publishing a book without coming and talking to us first; you can't publish it. Well, he finally agreed he wouldn't publish it[;] however, he put so much time in it and so much effort and he printed up all these copies … So, we struck a deal to pay him for his effort and for the printing … I went out to California with George Prettyman as my lawyer at my side, and we wrote him a check and took possession of all that stuff. We shipped them back here. I think we turned some of them over to the [National Cryptologic] School, some of them over to P1, and had him sign an agreement, which not only prevented him to publish anytime, but also forbade him from discussing it or telling anybody else that we had made this deal with him. In other words, if he ever goes to anybody and says, hey, you know I wrote a book that NSA didn't want published and they paid me off for it, he has violated his contract and we can take him to court.[31]

According to General Counsel Elizabeth Rindskopf, the deputy director had approved the use of $24,500 ($72,190) in NSA confidential funds to buy not only the existing copies but also Barker's "complete and

A Tantalizing Thread to Pull

NSA's Center for Cryptologic History (CCH) often fields inquiries from people seeking advice on how to dispose of cryptologic-related material. For example, the wife of a deceased NSA cryptanalyst, Rudy Lauer, asked if CCH would be interested in reviewing the many cryptology-related books and papers he'd left behind. One item was *Computer Simulation of Classical Substitution Cryptographic Systems*—the book connecting Lauer to Wayne Barker. She explained that NSA had found classified information in it before the book was published, even though Lauer had no access to classified material at the time and did all his research from publicly available sources.

There was one more interesting tidbit. A copy of the book had been found among Libyan dictator Mu'ammar Qaddhafi's effects when he was deposed. To a CCH historian, this was like waving a big, red cape in front of a bull! How did Lauer's book get there—though a Greek intelligence connection or an Iraqi ally? From Aegean Park Press? More questions than answers as befits the bizarre case of Wayne Barker and NSA.

Source

Mrs. Rudolph F. Lauer, email correspondence with the author, January 6-19, 2022, Historian Patrick Bomgardner Source Files.

entire copyright interest, including rights to renewals and extensions, in the Work." The agreement made on April 23, 1985, was signed twice by Barker—once in his personal capacity as the author and once as the sole proprietor of Aegean Park Press. Assistant Comptroller Robert J. Liberatore executed the agreement on behalf of NSA.[32]

Once the book officially belonged to NSA, it was classified and marked SECRET HANDLE VIA COMINT CHANNELS ONLY LACONIC in accordance with NSA/CSS Classification Guide 58-83, "Cryptanalytic Techniques." A copy in the NSA Archives bears the following handwritten memorandum for the record by Charles Ware, then chief of Archives and History (T54): M/R "NSA paid Barker $24,500 not to publish / sell this book … C. Ware."[33]

Levin revealed a further arrangement that NSA had with Barker—one with which Levin didn't agree:

> I can tell you—we're paying him off to prevent publication of anything more like that. I think that's a mistake. I think that we still have his signed oath, and I think we ought to hold him to it, rather than pay him off—that's ridiculous, but it was an easy way out, and I think we're afflicted with, gee, we've got so much money, you know, if we spend 50,000 here or 50,000 there, what the h—l, we won't even miss it. I think it's wrong, but be that as it may.[34]

The Rest of the Story

In an interesting twist, NSA declassified the book 10 years later and somehow, despite the aforementioned agreement, *Cryptanalysis of the Double Transposition Cipher* became number 69 in Aegean Park Press's Cryptographic Series. The book cover says "Now Declassified" and bears the inscription "SECRET Declassified per Part 3 E.O. 12356 by DIRNSA 3/6/95 RMF." The 1995 version included computer programs written in BASIC.[35]

Wayne Barker died in 2001 and is buried in the Southern Nevada Veterans Memorial Cemetery. As of January 2014, Aegean Park Press no longer appeared to be in business.[36]

Patrick Bomgardner was a Standby Active Reserve (SAR) employee in the Center for Cryptologic History. After a varied 41-year NSA career, he retired in September 2018 as chief of the Information Security and Classification Division.

Notes

1. Wayne G. Barker, Aegean Park Press, letter to Lieutenant General Lincoln D. Faurer, Director National Security Agency, June 29, 1981, NSA Archives, Accession 49422, Reference ID A3229845.

2. Wayne G. Barker, unofficial notes re Signals Intelligence Service, India/Burma Theatre, New Delhi, June 1945, NSA Archives, Accession 47452, Reference ID A532956.

3. William (Bill) Lutwiniak, interview by Robert Farley, October 10, 1981, NSA-OH-1981-10, transcript, Center for Cryptologic History, Ft. Meade, MD.

4. Lambros D. Callimahos, review of *Cryptanalysis of the Single Columnar Transposition Cipher* by Wayne G. Barker, *NSA Technical Journal* VI, no. 3 (Summer 1961): 119, NSA Archives, Accession 9820, Reference ID A398624.

5. Wikipedia contributors, "Aegean Park Press", *Wikipedia, The Free Encyclopedia*, https://en.wikipedia.org/w/index.php?title=Aegean_Park_Press&oldid=1107558810.

6. Meyer J. (Mike) Levin, interview by Robert Farley and Thomas Johnson, January 14, 1987, NSA-OH-1987-02, transcript, 43–44, Center for Cryptologic History, Ft. Meade, MD.

7. CLASSIDOC, Document ID 1121, DIR-004-74, Case Number D41M-170-74, October 21, 1974 (FOIA).

8. Lowell K. Frazer, Chief COMSEC Standards and Evaluations, memo to Deputy Director for Communications Security Subject: A Review of "Cryptanalysis of the Hagelin Cryptograph," by Wayne G. Barker, July 3, 1978, NSA Archives, Accession 49505, Reference ID A3301158.

9. Barker, letter to Faurer.

10. Daniel C. Schwartz, General Counsel, decision note to the Director, Subject: Cryptologic Publications, July 20, 1981, NSA Archives, Accession 49422, Reference ID A3229837.

11. Lincoln D. Faurer, Lieutenant General, USAF, Director NSA/Chief CSS, letter to Wayne G. Barker, Serial: N0773, July 21, 1981, NSA Archives, Accession 49422, Reference ID A3229837.

12. Helen O'Rourke, T541, memorandum for the record, Subject: Information from Mr. Wayne G. Barker, Publisher, Aegean Park Press, Laguna Hills, California, July 31, 1981,

NSA Archives, Accession 45277, Reference ID A3093077.

13. Operations Support Officer/OG/LCS DDO/EUR/SIGINT, Q-3 exclusive for Mike Levin, Chief Q4, Ref: Martin/Levin 14 Jan Telecon, Subject: Walk-in Wayne G. Barker, January 14, 1983, NSA Archives, Accession 48258, Reference ID A2440985.

14. John Iannuzzi, letter to Aegean Park Press, c/o Wayne G. Barker, December 20, 1982, NSA Archives, Accession 49777, Reference ID A3651959.

15. M. J. Levin, Chief Information Security Division, memo to General Counsel (GC) and M5, Subject: John Iannuzzi, Disclosure of Classified Information, Serial: Q4-0168-83, February 10, 1983, NSA Archives, Accession 49777, Reference ID A3651959.

16. Jon T. Anderson, General Counsel, note to the Director, Subject: Disclosure of Classified Information by Iannuzzi, March 14, 1983, NSA Archives, Accession 49777, Reference ID A3651959.

17. Wendall B. White, Director of Policy, letter to John Iannuzzi, Serial Q4-0277-83, undated, NSA Archives, Accession 49777, Reference ID A3651959.

18. Anderson, note to the Director.

19. M.J. Levin, Chief Information Security Division, memorandum for the record, Subject: Debrief of Wayne Barker, Aegean Park Press, April 25, 1983, NSA Archives, Accession 49777, Reference ID A3651938.

20. Richard N. Kern, Deputy Director for Plans and Policy, "The DDPP Significant Activity Report, Subject: Wayne Barker Business with Greek Citizens," February 1983, 2, NSA Archives, Accession 48287, Reference ID A3604977.

21. Levin, memorandum for the record, debrief of Wayne Barker.

22. Levin, memorandum for the record, debrief of Wayne Barker.

23. George R. Cotter, Chief of Staff, Memorandum CS/049-83 to the General Counsel, Subject: Foreign Agent Registration, April 25, 1983, NSA Archives, Accession 49777, Reference ID A3651938.

24. Lincoln D. Faurer, Lieutenant General, USAF, Director NSA/Chief CSS, letter to Dr. Richard Leibler, Serial: N0756, July 2, 1982, NSA Archives, Accession 49421, Reference ID A3218638.

25. Dr. Richard A. Leibler, Data Handling, Inc., memo, Subject: "Book Review: *Cryptanalysis of Shift-Register Generated Stream Cipher Systems*" by Wayne G. Barker, June 12, 1984, NSA Archives, Accession 49786, Reference ID A3662925.

26. Frederick J. Berghoff, Deputy Director of Policy, letter to Wayne G. Barker, Serial Q4-1232-84, December 13, 1984, NSA Archives, Accession 49777, Reference ID A3636466.

27. Glenn Stahly, memorandum, Subject: Prepublication Review – Barker, Serial: P1/050/85, February 1, 1985, NSA Archives, Accession 49786, Reference ID A3662929.

28. Stahly, memorandum, prepublication review – Barker.

29. Bureau of Labor Statistics CPI Inflation Calculator.

30. Wayne G. Barker, letter to M. J. Levin, Chief Information Policy, February 18, 1985, NSA Archives, Accession 49786, Reference ID A3662929.

31. Levin, interview, 43.

32. Elizabeth R. Rindskopf, General Counsel, memo, Subject: Barker Agreement, May 6, 1985, NSA Archives, Accession 49786, Reference ID A3662929.

33. Charles Ware, memorandum for the record, *Cryptanalysis of the Double Transposition Cipher,* October 3, 1985, NSA Archives, Accession 22581, Reference ID A2447130.

34. Levin, interview, 44.

35. Wayne Barker, *Cryptanalysis of the Double Transposition Cipher: Includes Problems and Computer Programs* (Aegean Park Press, 1995). Available in hardcopy at the National Cryptologic Museum.

36. "Aegean Park Press".

Women in Cryptology

Ann Caracristi

Introduction

Over 25 years ago, on April 6, 1998, retired NSA Deputy Director Ann Caracristi returned to the NSA-Washington campus to give the keynote speech at the dedication of the "Women in Cryptology" display at the National Cryptologic Museum (NCM). This exhibit included video, photographs, and text "featuring several female civilian and military retirees whose impact on NSA was significant in the field of cryptology."[1] Her presentation took place in the Friedman Auditorium (now the Friedman Conference Center). NSA's Center for Cryptologic History (CCH) held a copy of the transcript[2] in reference files, which served as a key source for historians for many years as it contained several details about her early career. The public can now access this transcript, as well as drafts and related correspondence, through the NCM's digital collection.

Caracristi often mentioned that she disliked when people defined her career accomplishments in the context of her gender (i.e., the first woman to reach a certain career level). It was clear that she believed society was moving closer to a point in which gender in the workplace would not matter at all.

Notably, one of the people Caracristi chose to highlight in her briefing about NSA women's history was Lieutenant General Ralph Canine, US Army. General Canine was often remembered as NSA's tough-talking, no-nonsense first director, but Caracristi wanted to remind the workforce that he also helped kick-start equality efforts for NSA women in the early days.

Caracristi concluded her remarks by stressing a point that is still important for today's workforce:

> I know that all of you, women, men, civilian, and military are making history at this very minute. And sometime in the future—maybe 30 or 40 years from now—the Center for Cryptologic History will be writing your story … So my message to you is "enjoy the sport," continue to solve the hard and challenging problems—and don't forget to share your memories with the historians.

Official portrait photograph of Ann Caracristi. CCH Collection.

She was right. CCH published her story—*Ann's War: One Woman's Journey to the Codebreaking Victory over Japan*, written by Dr. Dave Sherman—in 2019.[3] Please enjoy the wit and wisdom of Ann Caracristi.

Sarah Parsons was a historian with the NSA's CCH. Prior to her government career, she worked as a curator and archivist at the Baltimore and Ohio Railroad Museum and as the assistant director of the American Association of Museums' Information Center. She holds a BA in history from Salisbury University and an MA in public history from the University of Maryland, Baltimore County.

"Women in Cryptology" Transcript

My first trip to a museum was when I was about six years old. I was taken into New York [City] to visit the Museum of Natural History, and I can still remember my fascination with the mummy cases covered with hieroglyphs—and I can remember my sense of amazement and awe looking at the huge dinosaur skeletons that were installed in large, high-ceilinged rooms.

Little could I have known that I would spend a career involved with the modern-day equivalent of hieroglyphics. Nor that I would reach the point where I could be described as one of NSA's living dinosaurs!

Well, our National Cryptologic Museum is not yet quite up to Metropolitan Museum standards—but we have high hopes! And I think we owe a great debt to [NSA Director Lieutenant General] Ken Minihan, [US Air Force,] for his enthusiastic, unfailing support—and to former director [Vice Admiral] Bill Studeman, [USN] for taking the steps necessary to acquire the Colony Seven property to house the public museum—and to General John Morrison for forming the [National Cryptologic] Museum Foundation—and to many volunteer docents and foundation committee members who are working to help the museum become the best institution of its kind in the world.

We have described the three interacting missions of the museum to be:

- To commemorate the accomplishments and contributions of individuals and organizations;
- To educate both professionals and the public about cryptologic activities and their value to the nation; and
- To stimulate the imaginations of those who visit and participate in museum programs

I think it is most fitting that the museum will commemorate the role of women as a vital part of the story of cryptology. I am honored to be here today for the dedication of this display.

Historical artifacts, models, and pictures are, of course, basic to any museum collection—but creating and explaining the culture—the feel of the time—describing the personality of the people and how they worked together and how they felt about being a part of the mission is very difficult.

Each of us who was a participant is likely to have a narrow and perhaps distorted view. Memory is faulty—even contemporary recollections can be suspect (you may have noticed comments about Robert Reich's book, *Locked in the Cabinet*). Fortunately, trained historians—like intelligence analysts—are skilled at putting conflicting stories together to arrive at something close to ground truth.

I will try to convey some sense of what it was like way back then during WWII [World War II]—but, remember, it is only one person's experience. However, lots of researchers and historians are now able to examine the declassified records—so the documented record is becoming more and more balanced.

I came to Washington [D.C.] in June 1942—within a week of graduation from [Russell Sage College]. I knew only that I would be working for a branch of the Signal Corps—a branch that had something to do with something called cryptography. I came because—like almost everyone else—I wanted to do something for the war effort. It was the first opportunity that came along. I was never interviewed by anyone. It seems that my college dean [Doris Crockett] had given my name and the names of two of my classmates, Kitty [Woolsey] and Kate [last name unknown], in response to a request for candidates. We were accepted. And considering it something of a lark, we set off for Washington.

To really get the flavor of Washington in 1942 you ought to read David Brinkley's marvelously entertaining, and wonderfully accurate, description in his book *Washington Goes to War*. It was a hot, humid, overcrowded city, in confusing transition from being a sleepy southern city to becoming a war-driven boomtown. According to Brinkley, more than

70,000 new people arrived in the first year after Pearl Harbor alone. And Kitty and Katie and I were among them.

Finding a place to live was a real problem. Somehow we managed to get a room in what had once been the Armenian embassy, where we stayed until we lucked into an apartment in Arlington.

Nowadays the military talk[s] a lot about tempo—they mean operational tempo. In WWII Washington, the word tempo described buildings—the temporary buildings we worked in and the buildings many of us lived in—not only military personnel but large numbers of the women who were recruited as clerks and typists for all the many civilian war agencies—OPA [Office of Price Administration], OWI [Office of War Information], OCD [Office of Civilian Defense]—and for the SIS [Signal Intelligence Service], the Army Signal Intelligence Service. The Munitions Building on the Mall was one of a series of tempos left over from WWI [World War I]. And that's where we reported for duty.

That first day was my only visit to the spaces where William Friedman and his remarkable team had broken the Japanese Purple machine and had developed the enciphering machines and devices that were to protect US communications throughout WWII. That early team included several women, among them Wilma Davis (then Zimmerman); Dee [Delia] Sinkov (Abe's [Abraham Sinkov's] new wife); [and] Mary Jo Dunning, a statistician. Although she was not formally a part of the team, William Friedman's wife, Elizebeth, was very much in the background as a cryptologic pioneer in her own right, publicly acknowledged for her role in helping the [US] Coast Guard run down Prohibition's largest ring of rumrunners.

Our visit to the Munitions Building was brief. We were sent off to a classroom at George Washington University where we were to spend a few weeks studying Mr. Friedman's series of books on cryptography. Our teacher was Evelyn [Niemann] Akeley, a former professor of mathematics from Skidmore College [who was inducted into the Cryptologic Hall of Honor in 2023], who was working through [Friedman's] *Elements of Cryptanalysis* right

Caracristi (right) and colleagues working on Japanese encrypted documents at Arlington Hall, 1945. CCH Collection.

along with us, maintaining her lead by staying one chapter ahead. We spent eight hours a day working problems in substitution and transposition and learning about Playfair squares and other such encryption schemes. But our graduation, it turned out, had more to do with when we could move to Arlington Hall than how skillful we had become in finding solutions.

So on a day in July we joined the group at Arlington Hall, the former girls' school taken over by the army just as the navy had taken over Mount Vernon Seminary in northwest Washington. It can't be denied that the early cryptologists had a knack for locating good real estate.

Attractive as the location was, however, it was very hot in July. And I was assigned to a group that was working on the Japanese Army and water transport systems. We were located under the eaves on the top floor of the school building. There were bathrooms between every two of the former bedrooms—but the water was turned off so it was safe to use the bathtubs as filing cabinets for the vast stacks of intercepts we needed to attack. Of course there was no air conditioning at Arlington Hall—or in the navy's buildings—except in the machine rooms where IBM and special-purpose analytic and decryption devices were located. The cool air was for the machines, not the operators.

When the lieutenant colonel in charge told me I was to be assigned to the Japanese problem, I was astounded. I certainly didn't know Japanese—and, thinking of my training in Mr. Friedman's Cryptanalysis I and II, I couldn't think I'd be very helpful in working on a problem without knowing the language. "Don't worry," he said, "We'll teach you."

Well, what they taught me was how to sort and edit the volumes of enciphered messages that had been intercepted by Morse operators in the Signal Corps units scattered throughout the West Coast and the Pacific. Later, many of those intercept positions would be staffed by the Wacs[4] in the army's 2nd Signal Service Battalion.

Our assembly line routine was SORT, EDIT, PUNCH. Punch operators, women civilians—and, later, Wacs—would convert all that material into punched cards that could then be sorted on IBM tabulators and the results listed for study.

Talk about "one mission, one team"! Our group of about 15 people included our civilian leader, Al Small, who had been at the Munitions Building with Friedman; a just-out-of-OCS [officer candidate school] 2nd lieutenant who happened to be a nephew of Frank Lloyd Wright; several GIs waiting to go off to Fort Monmouth for [OCS]; Wilma Davis; and a couple of other newly arrived civilian women like me. We all pitched in to sort and edit. And while we did that humdrum work we talked about what to look for. It was clear that we all could have a voice in making the plan of attack—any good idea was accepted and put into effect immediately. Newcomer Jeanie [Jeanne] Cocroft was the first to come up with a way to de-dupe the traffic—which saved a lot of punch time.

It was known that our traffic was enciphered manually. The Japanese were using additive from pads of key combined with groups from codebooks. The only trick was to figure out the indicator systems, line up messages that came from the same key pad—overlaps—recover the plaintext code, break the codebook, and translate the message. In due course this process would engage a workforce of several hundred civilians (mostly women)—a few officers (men), and a large group of Japanese linguists, mostly enlisted men, working in three shifts around the clock, seven days a week.[5]

By 1943, large numbers of women had been recruited from high schools and colleges in the South to work at Arlington Hall. Many of them would live in the newly built group of tempo quarters called Arlington Farms. They were the clerks, sorting and handling traffic, and they were the overlap readers, posting messages on large worksheets, recovering keys, and producing decrypts to send off to the translators. Some—Charlotte Girhard, Nancy Maldon, Gene Raymond—became traffic analysts, working with

the largely military group who were reconstructing Japanese Army order of battle. Some worked as cryptanalysts—as I did. In my section only a few of the new women recruits were mathematicians—Anne Solomon, one. Except for those training to be teachers, very few women were encouraged to study math in the prewar period. (Remember that prior to WWII the number of fields in which women could hope to find professional jobs was very limited: teaching, nursing, merchandising were about it.)

Fortunately for cryptology (if not for the educational establishments of the early 1940s) women teachers turned out to be wonderful sources of talent for many of our jobs—including math and foreign languages (mostly French, Spanish, and German, however). These were women who would work on the German and European targets in what was, to me, the other part of SIS—the part run by Colonel Frank Rowlett. Our Japanese linguists were mostly military and mostly men selected from colleges around the country, drafted, and put into immersion courses [in] Boulder, Colorado, and at Syracuse University. A few had been former missionaries—or came from missionary families that had lived in prewar Japan.

It was generally believed that women were good at doing tedious work—and as I had discovered early on, the initial stages of cryptanalysis were very tedious, indeed. So women were recruited not only to free up men to go overseas, but to do the jobs that they were assumed to be most suited for. It's probably hard to understand why young women would come to Washington to work for $1,440 a year (yes, that's fourteen hundred and forty dollars a year), or $1,620 if you had a bachelor's degree and $1,800 for a master's. But these women were women accustomed to Depression wages. And teachers' wages—which were notoriously low even in good times. And these were 1942 dollars!

Those of us who considered ourselves Arlington Hall pioneers—who moved in during those first few weeks—have special memories. We remember the famous guard force made up of freshly drafted high-IQ GIs (draftees were selected for SIS on the basis of their test scores)—GIs like Arnold Dumey, who had never held a gun before in their lives—drew every third or fourth night and had to patrol the Arlington Hall grounds. There were many stories—some of them true—about guns going off accidentally in the guard room. We remember watching A Building being built in record time. The long, un-partitioned "wings" were outfitted with rows of old, dilapidated desks and tables scrounged from heaven-knows-where and populated with the ever-growing workforce. The cafeteria building and B Building came next.

[Historian] David Kahn says that in June 1945 we were up to about 10,500 at Arlington Hall: 5,500 civilians, 4,500 enlisted (1,500 of [them] Wacs), and 800 officers. I don't know how many of those civilians were women—but I suspect it was about 90 percent.

Security was a matter of great concern then, and it led to extraordinary compartmentation—which in turn meant that very few of the people at Arlington Hall—or in the field—understood what was happening outside of their immediate areas. Need-to-know was strictly observed. My college friend Kitty had ended up being assigned to the reporting shop headed by the legendary Dr. Julia Ward (a former dean at Bryn Mawr [College]), so I at least was aware the translations (mostly) and reports were being published and distributed. And Katie ended up in a COMSEC [communications security] unit so I knew that there was a part of the SIS that worried about a key [Japanese] diplomatic system called Purple, which was being read. But [it] wasn't until V-J day that I ever saw a translated Purple message.

As the workforce grew and the production process became somewhat more coherent, the output became more timely and valuable. But the organization was still a work in progress. There were times when we marveled that anything useful was produced. It seemed to miraculously come out right despite the confusion (even chaos) of what seemed to us loose or sometimes nonexistent management or organization. But morale was high. We had a clear mission—WIN THE WAR—and, since most of us expected to go back to real life at the end of the war, we did not much feel

the need to compete for promotions or worry about turf. On the whole we regarded our activities more as sport than business. We were serious and dedicated (many of us worked 10-hour days)—but we enjoyed working together and playing together. We had picnics and softball games, a glee club, and amateur theater group—we went to the movies at Fort Myer. We saw *Oklahoma* when it opened at the National Theater [in Washington, DC].

The chief of the Japanese military branch was Colonel Solomon Kullback. "Kully" was one of the greats handpicked and trained by William Friedman. Despite his wartime military rank, he was at heart a civilian professor of mathematics, far more interested in cryptanalysis than in organization charts. Nevertheless, he crafted an organization that by early 1945 was reading nearly every message transmitted by the Japanese military—usually within hours of transmission—and sometimes long before the intended recipient read them. We were much better at dealing with garbles and encipherment errors.

Kully didn't hesitate to put women in charge. Wilma Davis, Delia Sinkov, [and] Mary Jo Dunning were all section chiefs.

Meanwhile, across the Potomac, at the Naval Communications Annex, navy cryptanalysts were successfully exploiting the German Navy Enigma, using US versions of the British *bombe* devices.[6] By far the largest number of the mostly military workforce were WAVES [Women Accepted for Voluntary Emergency Services]. Some 3,000 were stationed there by early 1944—most of them involved in the twenty-four-hour, seven-day-a-week operation of the *bombes*.

Among the civilians who played important roles in navy cryptanalysis were Agnes Driscoll and Polly Budenbach. But most of us at Arlington Hall weren't aware of their successes until [after] the war when, at long last, the army and navy cryptologists did become one team.

Looking back, we now know that the WWII cryptanalysts played a central role working against the Japanese Army and Navy. The Battle of Midway, the success of [General Douglas] MacArthur's island-hopping strategy, the US ability to decimate the Japanese fleet of supply ships, the shootdown of Admiral Yamamoto's plane—all happened because of successful cryptanalytic attacks. And in the Atlantic, US and British exploitation of [the] Enigma led to the ultimate elimination of the German submarine threat.

Without the women working at Arlington Hall and at the Naval Communications Annex and in the intercept sites of the 2nd Signal Service Battalion, the massive production of decrypts and translations would never have been possible. Most of these women *did* go back to real life at the end of the war—and [they], the now mostly nameless, are the heroines of the Second World War.

Along with many, many others, I departed after the war and went to work in New York. But I couldn't resist the temptation to return when I was invited back a year later. Now it was the Soviet Union that was the threat—and I came to work in Oliver Kirby's Russian Division. [Carrie] Berry was my new boss. We worked on the Soviet military problem, but in the front of our B Building wing was the VENONA group that we now know so much about—thanks to the work of the NSA Center for Cryptologic History and the Agency decision to declassify the story. In the ceremony honoring the VENONA team of early heroes and heroines, Miss Gene Grabeel (a school teacher recruit) was acknowledged as the person who started the VENONA project in 1943. Among the 35 people listed, 17 were women.

No discussion of the role of women in cryptology can overlook the role of General [Ralph] Canine, the first director of NSA. He was the one who set the standards for many things: the look [of] the workplace—he finally got rid of the prewar furniture; [and] the look of the workforce—he insisted that we dress like professionals. Coat and tie were in; bobby socks were out. But most of all he insisted on fairness in rewarding performance. We went to bat to get a higher grade structure for all of NSA civilians—but

he was especially insistent that deserving women be considered for promotion to what were then the senior grades of GS-13 and GS-14. (After the war there were only three GS-15 cryptologists: Kullback, Rowlett, and Sinkov. A few other returning former officers converted to GS-14 and a few more to GS-13.) There were no women civilians above the grade of GS-12 in either army or navy cryptology. General Canine saw to it that that particular glass ceiling was broken.

It is obvious that there are many more stories to tell about cryptologic success (and failures) during the period of the Korean War and the war in Vietnam—and about the early years of the Cold War as more and more intelligence and cryptologic history is made available for public release. And as this happens, I think we can expect to learn more and more of the contribution of women in cryptology at NSA and in the service cryptologic elements.

But I suspect that we are fast approaching the point in our society—and in the world of cryptology—where the "we and they" of men [versus] women in the workplace becomes less of an issue. The presence of senior women in all parts of the business at NSA today—from research and engineering, to computer programming, to the development of new secure information systems, to logistics, training, advanced cryptanalysis, translation, transcription, analysis, and reporting—is taken for granted. As are the many women serving as NSA representatives in intelligence centers and collection units around the world. Even the fact that we have today (I'm delighted to note) another woman D/Dir [NSA Deputy Director] is not too remarkable. Nor is the fact that there are today women in charge of major organizations throughout the Agency.

Finally, let me say that I know that I am one lucky person—first because I was able to be here in the early years to share in the excitement and fascination of our accomplishments—but also because, in retirement, I'm still able to share many of your TOP SECRETs. I know something of how important your work continues to be today. I know that all of you, women, men, civilian, and military, are making history at this very minute. And sometime in the future—maybe 30 or 40 years from now—the Center for Cryptologic History will be writing your story, and their diligent staff of historians will be helping the world-famous National Cryptologic Museum prepare a display of the accomplishments you have been a part of. So my message to you is "enjoy the sport," continue to solve the hard and challenging problems—and don't forget to share your memories with the historians.

Notes

1. NSA Director Lieutenant General Ken Minihan, US Air Force, to Ann Z. Caracristi, March 3, 1988, National Cryptologic Museum, Object ID 2017.0704.0082. Correspondence regarding Caracristi's April 1998 speech "Women in Cryptology".

2. Ann Caracristi, "Women in Cryptology," remarks delivered at the dedication of late 1990s exhibit on Women in Cryptology, National Cryptologic Museum, Ft. Meade, MD, Ann Zeilinger Caracristi Papers, Folder 164.

3. Dr. Dave Sherman, *Ann's War: One Woman's Journey to the Codebreaking Victory Over Japan* (Ft. Meade, MD: Center for Cryptologic History, 2019).

4. The Women's Army Corps (WAC) was originally known as the Women's Army Auxiliary Corps (WAAC). Its name was changed in September 1943. Jennifer Wilcox, *Sharing the Burden: Women in Cryptology during World War II* (Ft. Meade, MD: Center for Cryptologic History, 2013).

5. For further details, please read Sherman, "Tackling Encrypted Japanese Message: The Address Section" and "The Water Transport Code," in *Ann's War*, 27–34.

6. To learn more, please read Jennifer Wilcox, S*olving the Enigma: History of the Cryptanalytic Bombe*, rev. ed. (Ft. Meade, MD: Center for Cryptologic History, 2024).

Signalman's Odyssey

A personal narrative of the experience of Technical Sergeant Michael Maslak, US Army, in the Pacific during World War II

Technical Sergeant Michael Maslak, US Army

A Note to Readers

This account is an excerpt from *History of the 2nd Signal Service Battalion 1939–1945* (Special Research History [SRH] 135), lightly edited for modern readers, shortened for space, and appended with a glossary. Though quotation marks have been maintained, please keep in mind this account is a recollection.

The following was previously serialized in three issues of the *ASA Review*, a now defunct publication, (May–June 1947, July–August 1947, and May–June 1950) and published as a whole in a *Cryptologic Quarterly* from 1985. Complementary historical facts are contained in the other portions of SRH-135, available through the National Archives and Records Administration and the National Cryptologic Museum's physical records. More on the intelligence work of this time is also available in Frederick D. Parker's *A Priceless Advantage: U.S. Navy Communications Intelligence and the Battles of Coral Sea, Midway, and the Aleutians*, a CCH publication.

Introduction

In January 1946 Technical Sergeant Michael Maslak, four months out of a Japanese prison camp, turned up at Arlington Hall Station to report what was certainly one of the most amazing series of adventures experienced by any of the hundreds of Americans who did signal intelligence work during World War II. Sergeant Maslak, an intercept operator in the Philippine Islands, had not been heard from for more than three-and-one-half years, and had long since been dropped from 2nd Signal Service Battalion records. The news that he was alive created great excitement around battalion headquarters. In the course of his visit to Arlington Hall, Maslak provided a large amount of previously unknown information about the fate of signal intelligence personnel assigned to the Philippine Islands who had been scattered in all directions by the events [that] began on December 7, 1941. Some were trapped on Corregidor [Island], some went into the hills to become guerrillas, and some were taken to Australia as the nucleus of the signal intelligence service at General [Douglas] MacArthur's headquarters.

Many adventures befell Maslak and other Americans following the Japanese attack on American forces in the Pacific area. This is the story as related by Michael Maslak.

Background

My experience in signal intelligence work dates from November 20, 1939, when I was detailed to the 2nd Signal Service Company's Detachment at Fort Hancock, New Jersey, from Fort Monmouth, where I had been attending the signal communications school.

I had enlisted in the Civilian Conservation Corps in July 1938, the month following my graduation from high school [in] Johnson City, New York. On April 27, 1939, I enlisted in the Army at Binghamton, New York, and was sent to Fort Monmouth, where I was trained principally in fixed station operation before being moved over to Fort Hancock, just a few miles away.

At the time of my transfer to Fort Hancock, I was not a member of the 2nd Signal Service Company. However, I was assigned to the company later and was sent to Fort Hunt, [in] Alexandria, Virginia, on January 6, 1940, with four others.

I went overseas in June 1940 to Fort McKinley, the Philippines, beginning my period of duty there on [August 1, 1940]. I served as an intercept operator there until the beginning of August 1941, when I was detached to become one of sixty students entering the West Point Preparatory School at Camp John Hay, Baguio, Luzon [Island]. Prior to my entrance into

the school, I had completed several reserve officer extension courses and was on a second extension course in cryptography.

In December 1941 the Philippines Detachment had on its roster two officers and sixteen enlisted men:

Major Joe R. Sherr, Station Commander and Assistant Signal Officer, Philippine Department

First Lieutenant Howard W. Brown, Signal Corps (pioneer in RI [radio intelligence] work in the Philippines as an enlisted man; called to active duty as second lieutenant early in 1941 from position with Mackay Radio, Manila)

Technical Sergeant Eustace M. Messer, Chief Operator

Staff Sergeant Joseph Sarata, Intercept Operator

Staff Sergeant Lawrence M. Hall, Intercept Operator

Sergeant Carl L. Card, Intercept Operator

Sergeant John J. Phelan, Intercept Operator

Corporal Richard E. Nurss, Intercept Operator and Maintenance Man

Corporal Irving A. Stein, Intercept Operator

Corporal James E. Rhen, Intercept Operator

Private First Class Daniel Gelb, Intercept Operator (directly commissioned after outbreak of war)

Private First Class Michael Maslak, Intercept Operator

Private First Class Paul A. Gill, Intercept Operator

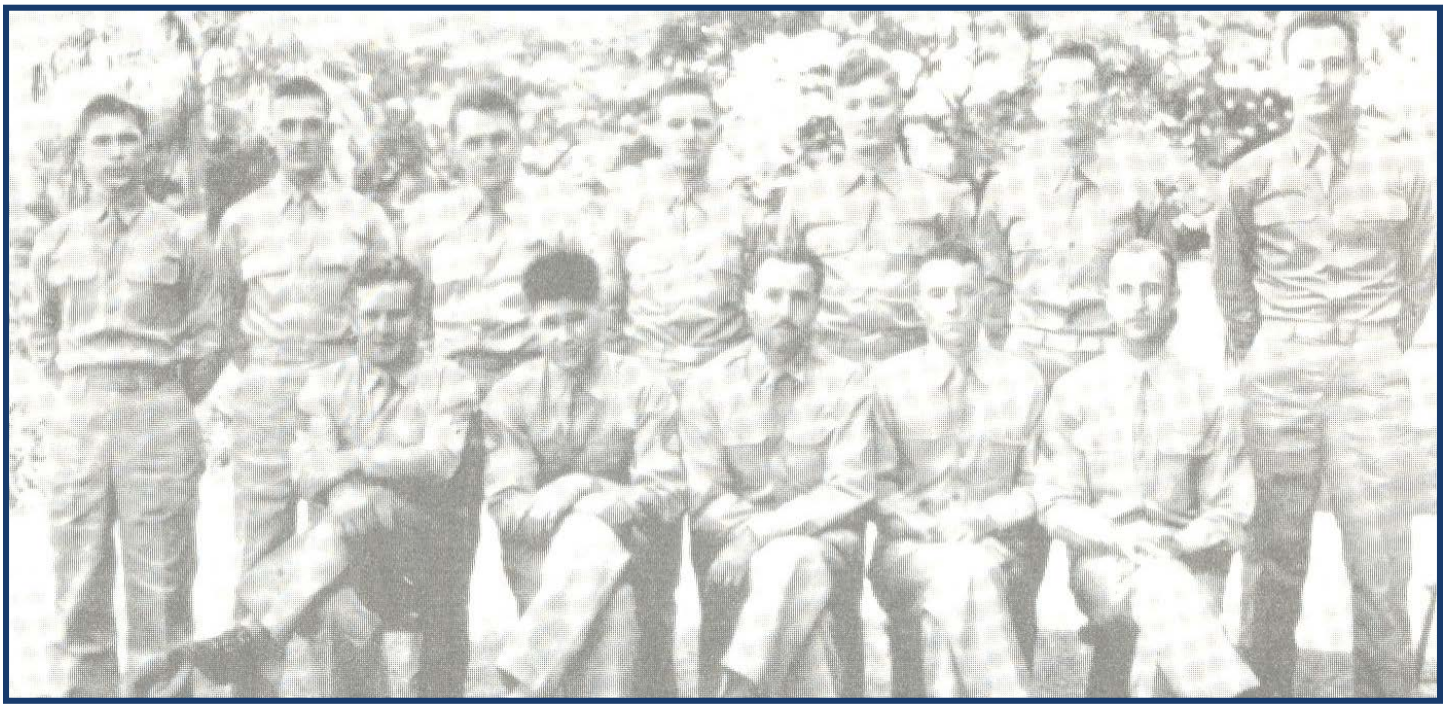
Private First Class Stanley W. Kapp, Intercept Operator

Private First Class Berkley J. Kinkade, Intercept Operator (commissioned at same time as Private First Class Gelb)

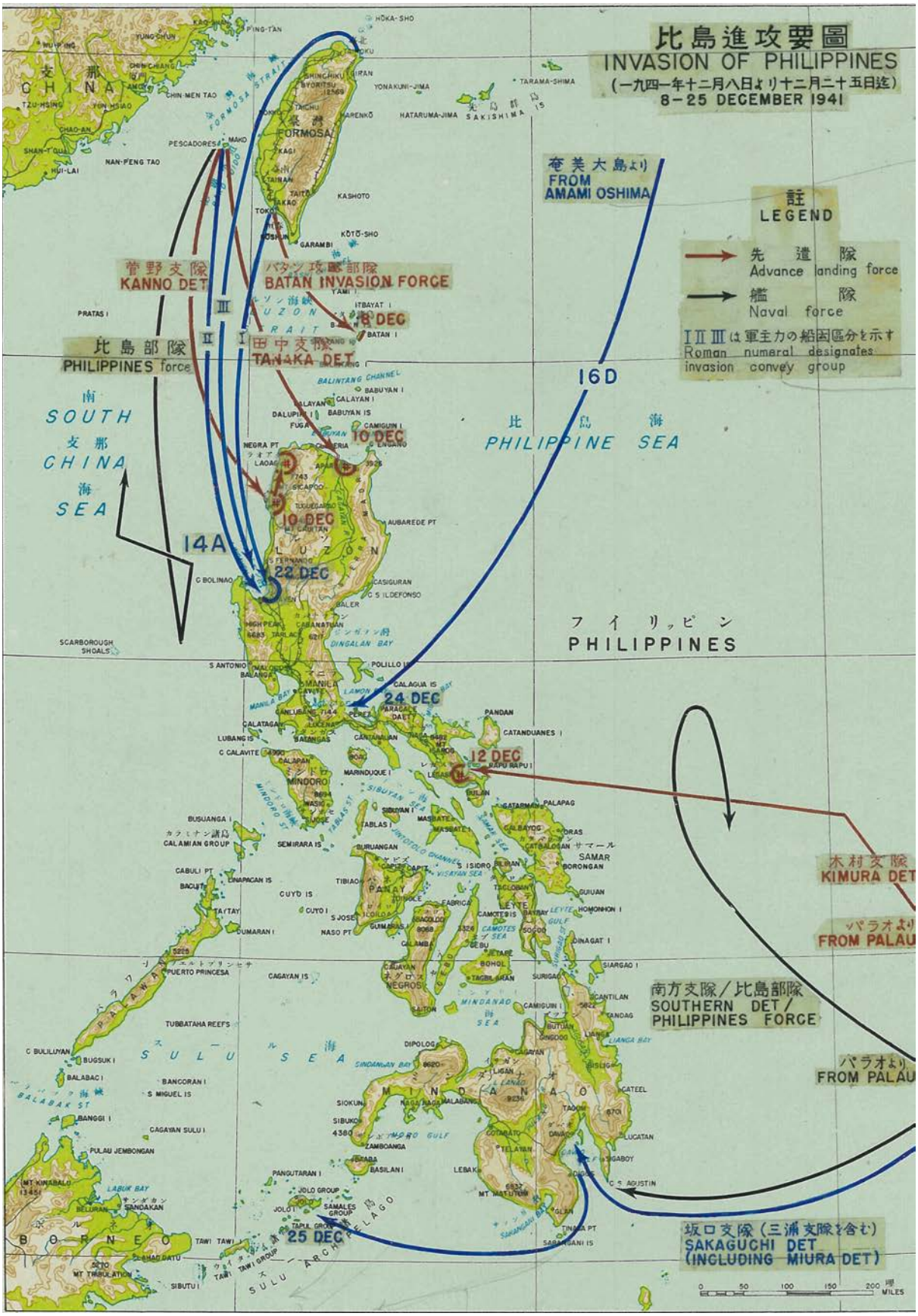
Private First Class David H. Sumons, Intercept Operator

Sergeant Wayne R. Hightower, Clerk (transferred to a signal supply unit early in war)

Private First Class Jay E. Bradbury, Clerk



Fort McKinley Detachment, 2nd Signal Service Company, September 1940. CCH Collection.
Standing: PFC Michael Maslak, PFC Daniel Trucz, PFC Joseph Sarata, PFC Daniel Gelb, PFC Berkley Kinkade, PFC William Stage, CPL James Rhen.
Seated: SGT Eustace Messer, SSG William McCullough, MAJ Joe Sherr, MSG Braxton Small, CPL Wayne Hightower.



Map of Invasion of Philippines, December 8–25, 1941. National Archives and Records Administration, College Park, Record Group 496, General Douglas MacArthur Report Maps, NAID 50925964.

Evacuation from Baguio

When the war began, [West Point] Preparatory School [personnel] were placed on duty with the other units of the Camp John Hay garrison, which consisted of two companies of Philippine Scouts and Signal and Quartermaster detachments of US troops. There were approximately fifty Americans in the camp. They included the American officers of the Filipino companies, officers of the post headquarters and the school, the Signal and Quartermaster troops, and the [preparatory school students], who by that time had been reduced in number to thirteen.

Camp John Hay was not organized or equipped for a major defense. A thorough watch for enemy movements was kept, with the 228th Signal Operations Company providing the necessary communications between observer outposts and the camp. Radio contact between General MacArthur's US Armed Forces, Far East (USAFFE) headquarters and Camp John Hay was also maintained. I was placed on duty in the [camp's] communications center controlling the local net and working the USAFFE station. When off duty, I often visited the lookout post on Mount Santo Tomas from [which] the waters of the Lingayen Gulf could be seen. While there, the arrival of some eighty Japanese ships on December 18 was witnessed. This marked the beginning of the big Japanese push on Luzon. Other smaller landings were made by the Japanese for the purpose of setting up communications, observation posts, and reconnaissance.

On December 24, 1941, after coming off a night watch, I received permission to visit a Philippine Scouts installation where my school roommate was on duty. En route, rounding a curve, the vanguard of a Japanese convoy was suddenly observed about a mile ahead. The driver whirled the vehicle around in the road and headed back to Camp John Hay. There was an exchange of fire with the leading Japanese vehicle. At the direction of an infantry lieutenant in the car, hand grenades were dropped in the road and one of them blew up the Japanese lead truck filled with troops.

The evacuation of Baguio was ordered that evening. The garrison was split into three groups, two of which were to join the main United States and Philippine forces [based on the] Bataan [Peninsula], approximately 160 miles away. General MacArthur had ordered the Camp John Hay complement to rendezvous with a group of vehicles from Bataan near Balete Pass, southeast of Baguio on the Manila-Aparri highway. Traveling afoot, we made the journey in three nights and two days, arriving on December 27. We met two buses about ten miles north of the pass. This was the meeting place for American and Filipino forces in the northern part of the island. Before the buses were loaded to start south, the officer in charge of the group, sent them to an Army warehouse at the pass where they loaded on provisions for the guerrilla bands, which were forming around Baguio. About a hundred *cargodores* (native carriers) were assembled to carry the provisions into the hills.

The buses then loaded the evacuees and continued through Balete Pass and Cabanatuan to Mexico, a village north of Manila, which was another gathering point for groups of evacuees. At Mexico, along with my school mates, I was placed on duty with Philippine Army units. This was done more for the benefit of the Filipinos' morale than anything else. I was sent to an engineer unit whose job it was to prepare for and later carry out demolitions. This job lasted three days or until December 30, 1941, by which time the Japanese Lingayen Gulf invasion had penetrated to a point only a few miles away. On December 31 the evacuation to Bataan was started.

Next Stop—Corregidor

Upon arrival [in] Bataan, I was placed on duty with a battalion of the 60th Anti-Aircraft Regiment near the southeastern tip of the peninsula, very near Corregidor. On January 3, 1942, I went across the channel by barge to Corregidor where I rejoined my unit, the 2nd Signal Service Company Detachment. I found the unit operating inside "the Rock" organizing communication nets for units that were withdrawing into Bataan.

For the first time since the intercept station had stopped operating at Fort McKinley, radio intelligence work was resumed sometime between January 15 and 20. Lieutenants Brown, Gelb, and Kinkade, and I were the first personnel taken off the communications job and assigned intercept duties. We were selected because we could copy the katakana telegraph code transmissions better than any of the others. As more personnel could be spared from communications duties, Messer, Kapp, and Gill were added to the intercept group with Bradbury being assigned to clerical work assisting the intercept operators.

Intercept Mission

The first [RI] job was the intercept of three types of communications—transmissions from and to the Japanese reconnaissance planes [that] were frequently observed; traffic of the air-ferrying commands in the Philippines area; and Japanese weather stations scattered about the islands. Because traffic being intercepted largely concerned the [Army] Air Corps and air defense, the RI unit was initially located at the anti-aircraft (AA) command post in the main tunnel. An AA telephone operator was stationed with the unit to relay information to the regiment commander.

The setup was makeshift, of course. The antennas were outside and reached the receivers by a long lead-in. For receivers, the unit had two Super-Pros—all that could be asked for in the way of reception and as many in number as the four operators could man. All four of us, Brown, Gelb, Kinkade, and I, operated the intercept equipment, but Lieutenant Brown and Lieutenant Gelb also had to evaluate the traffic and make translations of the plain text, coordinate results with the G-2, and conduct liaison with many other activities. Lieutenant Colonel Sherr visited the intercept element daily to provide guidance and obtain messages of interest to USAFFE headquarters. The RI unit was in direct telephone contact with the [US] Navy RI element located in the Navy tunnel near Monkey Point. A Navy officer was of considerable help in plaintext translations.

Lieutenant Colonel Sherr arranged for RI work in the front lines on Bataan, and Lieutenant Kinkade, with Kapp, Hall, and Messer, was sent there for the month of February. Their location, in a dugout, was a fixed one. They set up a telephone circuit for sending in their results to Corregidor. Sherr visited them often and was usually disappointed in the results, which seldom included information [that] could not have been obtained at Corregidor. Because this effort was not sufficiently productive, they returned to Corregidor in early March 1942.

Air Raid Tipoffs

Because of the way the Japanese air raids and reconnaissance missions were carried out and because so much of the enemy traffic was in plain text, considerable information was developed for the G-2. It was the Japanese practice for raiding planes to get to the general area of their intended target, reporting their location to their base all along the way, before being told what exact target to bomb. Reconnaissance planes advertised their locations and to some extent their missions in a similar manner. Both reported results to their bases by radio. Air-ferrying traffic provided a fairly good picture of Japanese movements and intentions. Weather messages gave weather conditions in Japanese-held areas and to some extent provided an indication of enemy air activity as well as disclosing the location of their weather stations.

When the Japanese landed on Mindoro [Island] in late February or early March, the intercept operators were the first to know. US troops on the opposite side of the island were informed of the landing and ordered to evacuate. The RI element also provided the first information concerning the Japanese landing at Batangas on Luzon. Early in February, a large number of Japanese landed at Agaloma, at the end of the Bataan Peninsula. Their mission was infiltration and sniping. The radio traffic of the planes, which provided the required supplies, gave away the Japanese plans. As a result, our forces headed them off and the Japanese mission was a failure.

One of the more interesting RI battles involved a Captain Villamoor, a Philippine air ace who made

regular reconnaissance flights over the Japanese batteries across from Bataan. One day, Foto Joe, the Japanese reconnaissance pilot whose plane was regularly spotted at seven o'clock every morning, spotted Villamoor and reported his position to the Japanese base. The Japanese base was heard to dispatch six Zeros after Villamoor. This information was reported to the Air Corps, and the five P-40s, which were already in the air as protection for the captain, were informed that the Zeros were coming. Our pilots got all the Zeros while losing one of their own. Foto Joe requested permission from his base to land, reporting the results of the dogfight at the same time. The Japanese base was heard to respond that more Zeros were coming up. Our planes, which were low on gas by this time, were recalled to their base.

Voice Intercept

Early in March, the Japanese bombers started using radiotelephone. The RI detachment obtained two interpreters, [one] Filipino and [the other Japanese American], who read their voice transmissions for us. The Japanese [American] interpreter, despite our high trust in him, could only go about under officer guard, lest he be mistaken for an enemy.

Detachment personnel knew the transmitting frequencies of almost all the air bases from which the planes were dispatched. The type of traffic they sent was always the tipoff of an impending raid. Special frequencies were used for bombing; they alone were an invaluable source of intelligence. The planes' callsigns were memorized as were the pilots' nicknames or codenames; the names of fruits were used.

Not only were the Japanese generous with their information as to their intentions, but they also kept us well informed of their results. They would report their losses and casualties, bombing or observation results, identifications of the US batteries that shot down their planes, and similar type data. The Japanese would then attempt to knock out those US batteries [that] were doing the dirty work.

Once, shortly after the Japanese began using the radiotelephone, a bomber report was heard, which stated that a group of civilians working on a bridge on Bataan were being observed. The base ordered the bomber to bomb them. The RI detachment was able to warn Bataan in time for the intended victims to reach cover.

After the Air Corps came to respect the results of radio intelligence, four Air Corps sergeants were sent to us to learn intercept operations. They were given as much training as possible under the circumstances.

The Australian Contingent

Because of the generally excellent results of the detachment's work, it was decided to send Lieutenant Brown and ten enlisted personnel to Australia to form the nucleus of an RI organization there. Those selected were Sergeant Messer, Corporal Nurss, Sergeant Card, Corporal Rhen, Corporal Stein, Private First Class Kapp, Private First Class Bradbury, Private First Class Gill, and Private First Class Maslak. The only former detachment personnel not included in this group were Lieutenants Gelb and Kinkade, who were left on Corregidor to do RI work with Air Corps Sergeants Summons, Sarata, and Hall. Lieutenant Colonel Sherr was one of the officers going to Australia with General MacArthur.

Mindanao

On March 27, Lieutenant Brown[,] Bradbury, Messer, Kapp, and I, who made up the first group to depart for Australia, bade the other members of the detachment farewell. We took a launch to Bataan, arriving at Bataan Field about nine o'clock that evening. We slept under a shack until the next morning when we were called to board a light, unarmed Waco plane. Before climbing in the plane, we gave some of our cigarettes to [the] Bataan soldiers who were very grateful, not having had a real smoke for many days. It was only ten days before Bataan fell, and they were lean and despairing ones. A large can of fish was made into a stew for 200 men for supper at the airstrip the night we arrived.

During the dawn hours we were flown to Cebu, and at dusk we went on to Mindanao, which was as far as

World War II-era Map of Mindanao and nearby islands. National Archives and Records Administration, College Park, Record Group 407, World War II Records, File Unit 6th Army, Local ID 6th Army Folder 37 Philippine Islands, NAID 100385235.

a land plane from Bataan could go. Our destination on Mindanao was Del Monte Field, in the north central part of the island. By April 1, our entire group of eleven had assembled at Del Monte Field.

Our group regretted greatly having to leave some of our number behind. In the case of Lieutenant Gelb, our feelings were doubly strong because of his extraordinary ability in RI work. He was the best intercept man I have ever seen, and he knew the traffic so well he was also very valuable as an analyst. Both Lieutenant Gelb and Lieutenant Kinkade were directly commissioned after the war started and I believe that had they not been officers, they probably would have been included in the group being evacuated to Australia. However, the orders for the move to Australia provided for one officer and ten enlisted men. My efforts and those of others to learn of Gelb's fate have been unsuccessful; the most probable story being that he was on one of the Japanese ships carrying US prisoners, which was torpedoed en route to Japan. This appears to be the reason many Corregidor survivors failed to turn up in the records.

We arrived at Del Monte expecting to get air transportation to Australia almost immediately. We were given to understand that our evacuation was a matter of utmost urgency and that we would receive transportation priority over most other evacuees.

The Battle for Airplane Seats

There were a lot of high ranking officers, including pilots, who were also supposed to get [to] Australia. Despite the weight which the RI group's orders seemed to carry, competition for plane seats was stiff. No planes came until April 13 when three B-17s and ten B-25s arrived from Australia. They brought medical supplies, candy, and cigarettes intended for the troops on Bataan. Apparently, they were unaware that Bataan had fallen. As sort of a retaliation, these planes [were] loaded up with bombs and played havoc with Japanese shipping at Subic Bay, Cebu, and other points. These planes were all to take passengers back to Australia. However, one of the B-17s was burned on the ground as the result of a dive-bombing attack, and its crew took up all the space in the second one. The third B-17 was the first of the planes to start back to Australia, taking off a few days after its arrival. Lieutenant Brown was unable to get any of the enlisted men on the flight, but a seat was allotted to him. He was greatly outranked by the other passengers on the flight, but it was important that, as the key man in the intercept and traffic analysis work, he receive the highest priority of the eleven men in the group. Sergeant Messer was the ranking enlisted man and was left in charge. Four places were allocated to us on the B-25s, which also were preparing for the return flight to Australia. These seats went to Sergeant Messer, Sergeant Card, Sergeant Phelan, and Corporal Nurss. Of the four, only Messer had been doing intercept work on Corregidor, and he was not as experienced as some of us who remained. Four of the six who were left—Kapp, Gill, Bradbury, and myself—had been performing RI duties on Bataan and Corregidor. We continued to contact the Air Corps colonel in command of the field and were always told that they had top priority for evacuation of all personnel at the field. The last plane for Australia departed on April 29 without the remaining RI personnel.

Early on April 30, urgent radio orders signed by General MacArthur arrived from Australia via Corregidor, giving our names, ranks, and serial numbers, and saying we were to proceed to Lake Lanao, where six seats would be available on a PBY (seaplane). The message stated that we were Mission A personnel, which identified persons selected to go to Australia because of their specialties.

Lake Lanao was a day's travel by truck. The truck [that] took us had trouble and we did not get there until early on the evening of the 30th. The two PBYs, which had come from Australia via Corregidor, were anchored off an island in the lake. We found the officer who was serving as dispatcher for the flights [that] were about ready to leave. We gave him our orders but were told we would not be going. The highest ranking among us were Stein and Rhen, both corporals. We were in a very bedraggled condition,

which did not improve the impression we made. Corporal Stein argued with the officer but without success.

The two planes took off, but one of them was forced down immediately because of being overloaded. It struck a reef and the hull sprang a leak. The Japanese were not far away and it was thought that the passengers on the disabled plane might be taken prisoner if they remained there while repairs were made. As a result, the passengers and the remaining Americans were taken back to Del Monte by bus on May 1. We heard later that the plane was repaired sufficiently to take off and that it took off with the Japanese firing at it in the air.

Still Looking for Transportation

The Japanese invasion of Mindanao, up to about April 27, consisted only of the seizure of bases at Zamboanga and Davao. However, they then landed in force at Cagayan, Butuan, and Surigao in the north and at Malabang and Cotobato on the southwest coast. The Cagayan landing was so close to Del Monte that by the first of May, the takeoff point for evacuation to Australia had to be moved to Valencia, [which was located] between Malaybalay and Davao.

About three o'clock on the morning of May 3, we received orders from a Major Rotterham to leave with him for Valencia. Only about three light planes were in operation at Valencia, though it was the last airfield left. We were the first to leave Del Monte; the others who were stranded there came later. At Valencia we were put to work doing guard duty, digging foxholes, and repairing telephone lines. Each night we would wait at the airfield with the others hoping a plane would come in from Australia. The Air Corps was still in communication with Darwin at this time. Requests were going to Australia for evacuation planes, but none ever came. All this time, the Japanese were dive-bombing and strafing the Valencia field. They hit the dumps and the last three planes burned on the ground.

On the morning of May 8, Corporal Rhen, while on guard duty, heard that Corregidor had surrendered. Rhen advised us that Mindanao was about to surrender and all six of us went to Major Rotterham and told him we wanted to take off rather than be captured. He gave us each a pistol. We hiked northward all day, reaching the beginning of the mountains where the road ended. Late in the day, we learned from some natives that news of the surrender of Corregidor had been false. Bradbury had bad feet from the hiking, and we decided to return to Valencia. Arriving back in Valencia the following afternoon, we were told that there was hope that a plane from Australia would come. As we were the only enlisted men left to be evacuated, we were placed in a kitchen under guard for our own protection. We were still armed. At about eleven o'clock that night, word was received from Darwin that no plane would come. No reason was given, but bad flying weather was the most probable one. When this word came, Rotterham, knowing our ideas of escaping, told us we were free to do whatever we wanted, as to staying there or taking off. However, we remained in Valencia that night to await developments regarding the surrender, intending to take off again if it should be announced. In the morning—the 10th—we heard that the formal surrender would be at ten o'clock the next morning at Malaybalay.

Rhen and Gill left immediately. I was anxious to go but wanted the other three to come along. They were undecided. All day we tried to persuade Bradbury to come along, but he would not on account of his bad feet.

In the morning, everyone at the field attended a meeting to receive instructions for assembling and going to Malaybalay where all Americans in the area were to give themselves up. The speaker at this meeting, a captain, warned those who were talking of taking to the hills, mentioning the threat of malaria, and the likelihood of starving or being turned in to the Japanese by natives. He said that if taken prisoner as guerrillas we would be shot.

After the meeting, Bradbury finally decided he would not come with us. Stein, Kapp, and I went to Major Rotterham who gave us the same advice as the

captain, but [he also] gave us [additional] pistols, cans of sardines, and ten pounds of rice. Again, he said to go ahead if we were sure that is what we wanted to do. We started at seven in the evening. Rhen and Gill had told us they would wait for us at the last village we had reached on our first start or at the village just beyond that. They were gone from both villages when we arrived[;] we were told by natives that the two had pushed on ahead. We were eighteen days [along before] finding Rhen and Gill[—]and it was only by barest chance that we did. And even then, we did not see Gill, who was about twenty miles away foraging for food.

Fishing boats in Corregidor. National Archives and Records Administration, College Park, Record Group 111, U.S. Army Signal Corps Photographs Of Military Activity During World War II and The Korean Conflict, Local ID 111-SCA-2955, NAID 80679943, Image 21.

We had known that the two would try to make the northeast coast. No trace of them was found until nearly three weeks after originally starting out when natives told us that they had seen a big fellow and a little fellow walking together, following a stream that converged with the one we were following. On the way to the coast, we met several other small American groups. One of them was a group of Air Corps men with two caribou, which were loaded down with enough provisions to last out the war. The three of us became five when we took up with a Field Artillery captain (Captain George Lindahl) and an Air Corps sergeant (Sergeant J.D. Biss). With pack and blanket roll loaded with supplies, we pushed on.

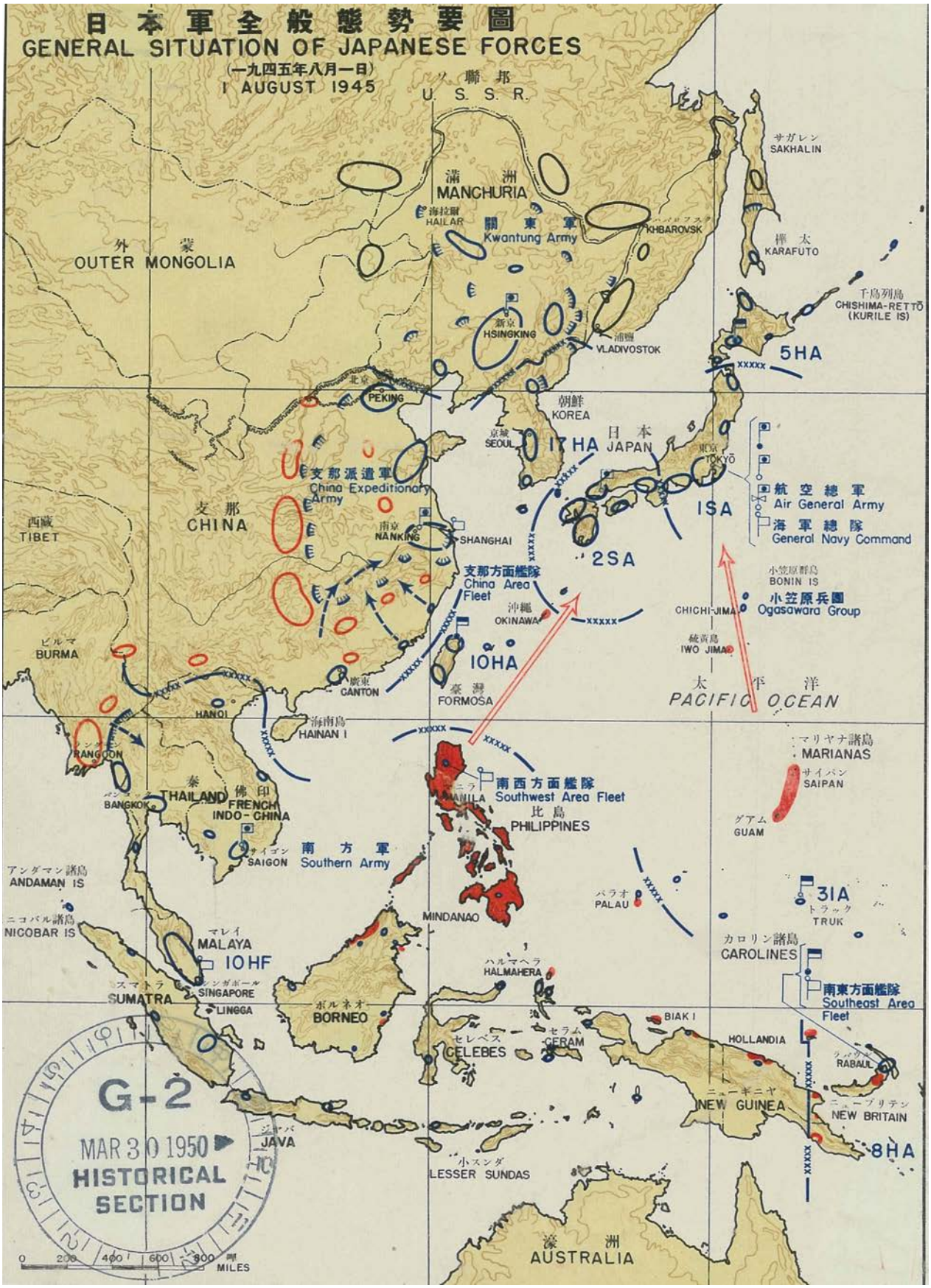
Clambering up cliffs, hugging the narrow base of a canyon, where it was light for only six hours a day, we followed the ever winding course of an ever swelling river. Our supplies were fast becoming depleted, and we began to experience that empty sensation in the stomach. We lived on nonpoisonous herbs and greens and even killed monkeys and kalau birds. We began having rain almost every day making streams almost impossible to ford. One day we made only about three-quarters of a mile headway because the jungle was so [dense].

Picking Up Speed

Things began looking up for us one day when we met a Filipino constabulary sergeant—a sort of [rural] policeman. He was traveling with three other natives, and they had about five pounds of rice. He knew what was safe eating in the jungle and our menu expanded miraculously. Several times we had tried to build a raft so we could take advantage of the waterways. With the help of the constabulary sergeant we were able to make three small rafts from bamboo. From then on, we covered territory in a hurry. He left us several days later upon reaching the village where his wife was staying. On learning that the constabulary sergeant's child was ill with malaria, we gave him most of our quinine tablets.

At this village we finally met Rhen, who was completely exhausted, his feet swollen and sore. He was resting. Gill was away on a foraging hunt so we did not get to see him. We told Rhen of our plans to reach Australia by boat and that we would wait at the village of Bislig on the east coast of Mindanao for six days in hope that he and Gill would catch up.

However, things did not turn out as we expected. We waited at Bislig for seven days, but Rhen and Gill failed to come. We were also getting extremely nervous about getting picked up by the Japanese. More ships were going up and down the coast, and we reasoned that before long one of them would land because of very good anchorage there. Japanese



World War II-era map highlighting the general situation of Japanese forces and showing places of interest in SGT Maslak's adventures. National Archives and Records Administration, College Park, Record Group 496, General Douglas MacArthur Report Maps, NAID 50925960.

troops were only a few miles west of Bislig—and to make matters worse a few of the natives appeared to be anything but trustworthy.

We were fortunate that one of our group had a fairly substantial bankroll. Kapp had worked regular shifts back in Corregidor's main tunnel and had had plenty of time for poker. He was carrying about [three hundred dollars], though we had not been paid since the end of November. I had [fifty or sixty dollars] and the others had varying amounts, all of them dwarfed by Kapp's bankroll. So we spent every cent except for about [ten Philippine] pesos for a sailing banca, with outriggers, and provisions for our voyage. The natives were glad to do business with us, and with the kind of money we offered them it was no wonder.

The *Buckwheat*

The boat, named *Buckwheat*, was a sailing banca used to transport a load of about sixty bags of rice between neighboring coastal towns. The hull was a dugout canoe some thirty or thirty-five feet long and planked on the sides to give it depth. If one stood on the bottom, one would be able to touch the gunwales about waist high. If one reached out both arms, one could swing as if on parallel bars, probably four or five feet wide. Having no keel, the boat was kept upright by two heavy balance poles suspended from the outriggers. A bamboo catwalk, three feet wide, stretched to the foretops of each pole. Fresh rattan rigging served as guylines for the wooden mast, which was about fifteen feet high. We braided our own lines from newly harvested hemp. The jib was a triangular section made of cotton material, while the mainsail was quadrilateral in shape, also made of cotton, but heavier than the jib. Two small pullies worked the lines for raising and lowering the bamboo boom and the mainsail. A guideline for playing the sail was attached to one end of the lower boom and held on a peg at the stern. The rudder, four feet long and two feet in height, had a tiller handle operated by the helmsman. The hull was open except for a loose board deck forward of the mast, and a small planked area about seven feet to the stern. The only raised part of the boat was an eight foot section with a mat of bamboo strips for flooring and roof. The cabin housed the perishable goods and became a shelter for Kapp and Stein when they fell ill. Four could huddle inside when necessary.

Provisions for the voyage included oatmeal, dried milk, rice, mungo beans, and corned beef. Coconuts and bananas were squeezed in with the firewood. Tea, salt, and a few limes completed the larder. A small bottle of gin was secured and saved for medicinal purposes.

On the night of June 9, we were visited by three young Filipinos who had heard of our trip and wanted to accompany us. Max, Sperry, and Trench were their nicknames. They explained their reasons for wanting to go along as a desire for revenge for suffering at Davao; for the death of a brother in the Philippine Army; and a wish to carry on the war with the American forces. Since they claimed knowledge about handling a banca they were taken on.

The Voyage Begins

Late in the afternoon of June 10 we weighed anchor, with only the sun, a pocket compass, and a *National Geographic* map of the Far East for navigating. With our Filipino friends watching, we gave a prayer, raised the sail, and embarked on our journey. God alone knew where or when it would end. Darwin, our goal, was 1,700 or 1,800 miles away.

The first night out, with a favorable running tide and excellent sailing weather, we made good headway. During the first four days everything was in our favor, even to the complete absence of Japanese vessels plying the waters between Surigao and Davao. That was what we feared the most. On the second night out, our Filipino friends almost caused a catastrophe by handling the banca in such a manner that it almost capsized. From then on they were relegated to tasks calling for less judgment.

Before we were aware of it, we were sailing through the Nenoesa Islands, a Dutch group southeast of Mindanao. We didn't stop—just surmised the identity of these specks of land from the *National Geographic* map, the celestial bodies, and the twenty-five cent

compass [that] gave a reading if shaken hard enough. Heading a bit east of south, we figured in four days we had covered about 250 miles. At this rate, we figured we would reach Australia in no time. But fate played tricks with us and we saw no more land for twenty-three days.

We were nearing the area of the doldrums when a three-day calm beset us. The creaking booms and flapping sails reminded me of [Samuel Taylor] Coleridge's *The Rime of the Ancient Mariner*. Rather than drift aimlessly like a painted ship on a painted ocean, we decided to ply our two oars and two paddles in hope of trying to maintain a pace of twenty-five miles a day.

A hot sun beat down on old *Buckwheat*. Stein got sunstroke and needed care for a week in the cabin. The watches were lengthened. If Kapp was at the tiller, Lindahl, the Artillery captain, and I would be pulling the long, heavy oars through rope locks on the forward deck; Biss and Trench would be making line from hemp and repairing the sheet, while Sperry and Max would be out on the catwalk sculling with paddles. We might have been satisfied with only a mile an hour if we had known what was in store for us. For the next twenty days, such weather, terrible as any seafaring man could boast of, hit us. Squalls, storms, and high winds buffeted us incessantly. Mountainous waves lifted us, then, as we hovered on the crest, plunged us to the trough to begin the next cycle. The boat shipped water, and each hour of the day saw the bilge can in operation.

For the rest of our trip there was rain each day, sometimes for a few hours, sometimes all day. There was no shelter for us except the space under our remaining half shelter stretched from side to side, amidships. Kapp, with an ailing back and kidney, joined Stein in the cabin. To Lindahl, Biss, and me this loss of another man meant extra hours on watch—three and a half, to be exact. The man at the tiller must sit on a hard board behind the burlap-covered box, which housed the compass and tiny lantern; he must shiver in a huddled position with only a soaked GI blanket for warmth, worrying over the helm answering. He [must watch] the whitecaps ship over the sides, with nothing warm to drink and no one to talk to. It seemed as though the end of each watch would never come, nor daylight be born again. Since it was almost always too cloudy to see the Southern Cross, and as the Northern Star was visible only part of each evening […] the Morning Star, Venus, was a welcome sight.

Technical Sergeant Michael Maslak, photographed in March 1946, looking none the worse for wear after his precarious adventures. CCH Collection.

In the daylight, with the soaked and ripped sails hauled down, we had to play the boat around and actually head north rather than south, in order to keep us on an even keel and save the outriggers from the malicious pounding of the waves.

When the sky was clear and the sails were in good repair, we could tack, closehauled, into the stiff south wind despite the waves; during a storm, with the sails torn and the boom broken, we had to hold on and just ride it out. Once, the broadside waves split an outrigger beam, and if we hadn't tied it with a long piece of carbonera rope salvaged from a drifting Dayak fishing canoe we'd have been goners.

A sudden gust of wind twice caught us unawares, lifted one outrigger balance pole clean off the water and nearly had us turned turtle. Immediately, four of

us dove along the catwalk, threw our hanging weights onto the poles and just in time managed to bring the boat on keel. The one sand bag we'd brought for ballast apparently wasn't enough.

In dry weather we had slept on top of the deck, on the catwalks, and on top of the cabin, but only snatches of rest could be had when it started to rain continuously. Our limbs soon became cramped as we huddled along the windward side of the boat. That was when the gin came in handy—shades of a barroom lassie, one bottle was a mighty slim amount!

Menu De Luxe

An empty five-gallon tin can with a sand bottom served as our stove. Usually several precious matches were wasted before we could get a fire going out of the [bolo-]split firewood. Breakfast consisted of steamed porridge and milk, sans sugar; the evening meal, of more steamed rice or mungo beans, some corned beef or fish, and tea. Coconuts became our afternoon snacks. Water was rationed a canteen full a day.

Max would add a fish or two to our diet now and then, by diving from the edge of the catwalk, slashing his prey in two, and retrieving the halves at the stern crossbeam. One lucky day, I was able to make a miraculous addition to our larder. Having tossed a feathered hook and line into a school of fish, I joined the fish-story tellers club when I caught eight tuna about six pounds each, in less than two minutes!

Twice schools of whales passed near us. Twenty-foot sharks provided us with frightening anxiety. (I estimate them at twenty feet for they stretched from the catwalk back to the rudder.) These sharks would follow the tuna, which in turn were following smaller fish that were following us. Often, when a shark lunged for a tuna, he smacked his huge tail fins against the stern planks, threatening to spring leaks. The helmsman could have reached down and touched these monsters, if he had been foolish enough to want to. We could stop their antics by shooting a couple, for the others would then lay back at the scent of blood, making short work of the wounded ones. Flying fish frequently sailed alongside and in front of us, but we never bothered each other. Another phenomenon was an enormous waterspout [that] appeared one day a quarter mile away. It was now heading straight toward us, when, much to our relief, it suddenly changed directions and spiraled off.

When the boat was making no headway under battened down sails, we often talked and joked, especially about our experiences during the long journey across Mindanao. It now seemed far away but we still remembered—how Malaybalay looked after the Japanese bombings, how Valencia was bombed and strafed after being a secret air base [for] so long, and how we nearly drowned in the turbulent Pulangi and other rivers. The cry had been "On to Walo!" where we saw Rhen. We wondered what had become of him and Gill—had they decided to stay in the hills, or were they prisoners of the Japanese?

The mountain ranges had seemed insurmountable, but we had passed them safely. We thought of the rivers we had had to cross, the Cagayan swamps, and knew that we had made it; and though things still looked pretty rugged we said, "We'll get through this too."

Lindahl was the man who kept our hopes high; every time the rest of us fell into despair, he gave forth with a resounding pep talk. After his enlightening sessions on how the infallible strategy and the fighting heart of the Americans would turn back the enemy on all sides, we could not help but feel there was life and hope for us. We'd soon rejoin our own forces.

"Okay then, Kappy forget about the pain. And you, Stein, let's get a little move on. How about you and Biss, Mike? If you can't think about anything but worry when you're back there and we're riding sea anchor, then just dream about the good times we got coming. That's it! Wipe the rain from your face. We got things to do!"

Now and then, we SIS members of the crew talked about how the 2nd Signal Service was started back in 1939. It seemed a long time, but we had come up from raw operators, had seen it grow, and were now in a position to hold key jobs when US Signal Intelligence

undertook a mission far bigger than anything it had done up to now—if we could only get ourselves to one of those large-scale intercept locations we imagined must be springing up in Australia.

Upon questioning by George and Biss, as to what kind of work we did, we hemmed and hawed for a time but eventually let them have a few stories of general incidents in our work. Biss was as skeptical as the Air Corps itself had been when our detachment told them of the intended bombings over Manila and Cavite. He couldn't understand how it was that by interception of recon plane traffic we were able to warn his own branch of danger. Naturally, we couldn't give them the working details—it would probably have been over their heads anyhow. George, too, looked doubtful when we told about the results of SIS work. Perhaps he thought we were exaggerating our exploits; maybe he just didn't like our not telling him how we did it. Anyway, he used to say we were the most overconfident, conceited, boastful, and proud soldiers he had ever met. I guess he really didn't mind too much, or he wouldn't have stuck with us the way he did.

We were only three weeks out, but our physical health as a group wasn't the best […] Stein was on his feet but still groggy. Kapp, feeling worse, had only a few drops of gin left in the bottle. The sum total of our medicine kit was a dozen quinine tablets, and of what use were they in an open sea! No mossies yet, thank Heaven! Each of us was still sporting body sores from our Mindanao leech friends. The salt-stinging sores leaked and grew in area. I [don't] believe we actually had scurvy, but we did have bleeding gums, cracked lips, and dry sores in the mouth. Every scratch or break in the skin soon became infected. Then, when our soaked suntans clung stickily to our backs and legs, the sores started spreading. Our eyes were slightly inflamed, probably due to both the lack of vitamins and the constant glare of the sun. Even our buttocks had sores from sitting on the hard, wet planks. Nonetheless, there was one part of our aching and tired bodies that wasn't ailing—the soles of our feet; they were calloused and as hard as leather.

Southward We Go

We were glad our shoes had worn out hiking through Mindanao. Thumps on spikes or rubbing on bamboo and rattan edges now didn't bother our feet at all. We would stretch our feet and legs on the catwalk and compare them, humorously, as to who had the toughest pair of soles.

As far as clothing goes, each of us had a suntan shirt and [a pair of] trousers. I owned an extra tattered short-sleeved khaki shirt, besides my old orange-trimmed Signal Corps cap. Lindahl had a raincoat, but the rain-proofing had worn off of it. We each had a billfold or pocketbook holding a few souvenirs, Filipino coins, snapshots of stateside girlfriends, a family picture, and the remaining thirteen pesos of Kapp's winnings from the Corregidor poker marathon. Stein still sported his high school ring. Biss contributed to our navigation equipment with a patched-up wrist watch, which ran long enough, intermittently, to tell us when the tricks ended. Except for my .45 automatic, my most precious possession was a GI blanket I had kept with me for almost three-and-one-half years.

Sailing away, except for the times we were backtracking, *Buckwheat*'s prow was pointing, or trying to point, south by a little east. We were aiming to pass just east of Morotai and Halmahera, hoping to sail between the latter island and Waigeo, the sizable island off the northwest tip of New Guinea.

Two times we encountered Japanese ships. We Americans hit the deck, leaving only Max, Sperry, and Trench in sight as apparent fishermen. Left gratefully unmolested, we couldn't help wondering whether or not the Japanese thought it strange to see such a vessel so far out to sea—a banca was built for sailing only within sight of land. The first incident occurred ten days and about four hundred miles out, when a large camouflaged and well-armed Japanese merchant ship crossed our port bow a half mile away. Two weeks later, an even closer call brought our hearts into our throats. A smaller Japanese freighter slowly crawled past our boat less than a quarter mile across the water. Luckily it was near dusk; so perhaps

they didn't see us. We certainly didn't hanker to have our adventure cut short at this stage.

A number of times Biss, always alert for moving objects—even to scampering up the mast to his imaginary crow's nest, thought he spied submarine periscopes in the distance. Closer observation always revealed they were only drifting deadwood. Biss, a camera fiend in prewar days, oft remarked how he wished he had a camera, especially a movie camera. He figured he could make a million dollars from shots of Mindanao and *Buckwheat*.

Land Ho!

It was on the morning of the eighth day of July that Kapp yelled through the mist, "Land ahead, land ahead!"

We threatened him with all kind of punishment for this ill-timed joke, but he persisted and pointed to a small, hazy, grayish cone jutting out of the water away off in the distance.

"Hooray! This is land! What is it? Where are we?"

What if it turned out to be Australia? Everyone was elated. Land at last!

The next afternoon a much more wonderful sight rewarded our prayers when we beheld the same cone, but this time we could see its base and even a large expanse of foothills off to the side. It stayed with us all day, and the next morning we made an estimate of the constantly growing mass of land and decided it was about 60 miles away. By nightfall it was easy to distinguish the golden sand of [a] palm-lined shore. The tropical sea was now bluer in color, leading us to expect that we would be sailing right into some crystal-clear lagoon. The main question in our minds was: Had we made a good or a bad landfall?

I took the tiller from Lindahl at nine o'clock. The rain had terminated but the night was pitch dark. The entire crew, exhausted, had stretched out wherever they could and had gone to sleep. Near midnight, the wild cries of jungle birds and the shrieks of monkeys indicated we were very near land, so I eased up on the sails and drifted toward shore on a dying breeze. I couldn't see a thing, but presently the lapping of the waves told me that shore was only a few yards away. I hove to, letting go and getting away the anchor for the first time since we started. By Biss's watch it was exactly midnight of the tenth of July. One month from Mindanao. Land at last! But where we were we knew not. We would have to wait for morning and sunrise. Now it was sleep and rest.

Fin

Epilogue

The disappointed sailors soon learned that they were not in Australia but in New Guinea, not far from Sansapor, to which they went the next morning for supplies.

They spent five weeks on a tiny island owned by a Chinese [national], which was situated between Waigeo and the southernmost tip of Halmahera where [they were allowed] to repair their boat and await favorable monsoon winds: a native missionary sent them kasavas, sago, and bananas.

This manuscript was never finished; Maslak and the other men were captured on September 24, 1942, on the same unnamed island, which they called Little Pam. They were taken to a prison camp at Amboina [now known as Ambon Island], N.E.I. [the Near East Indies, now Indonesia], where Maslak spent the next three years until he was freed. He then made his way back to Luzon, arriving there September 12, 1945. He returned to the United States and was discharged from the Army.

Rhen was killed while fighting among the guerrillas in the Philippines. Gill was commissioned a second lieutenant with the guerrilla forces with whom he had been fighting. He returned to this country in July 1944, four months after being evacuated from Mindanao to Australia. When he was last heard from (1946), Gill was a civilian in Thorne, Nevada. Kapp and Stein died while in prison with Maslak. Nothing is known of the fate of Biss or Lindahl.

Editor's Note

Since the last publication of this account, additional information has surfaced on several individuals. "Kapp and Stein were inducted into the Military Intelligence Hall of Fame … Reports after the war indicated Private Bradbury died while imprisoned in the Philippines … "[1] Gelb's death was tied to the October 24, 1944, sinking of the *Arisan Maru* (POW transport ship).[2] Biss went on to serve in both Korea and Vietnam and died in 2008.[3]

Notes

1. Erin Thompson, "Radio Intercept Operators Captured in New Guinea (24 SEP 1942)," *This Week in MI History* (blog), *DVIDS*, September 22, 2023, https://www.dvidshub.net/news/454134/radio-intercept-operators-captured-new-guinea-24-sep-1942.

2. War Department, Adjutant General's Office, "Records of World War II Prisoners of War," National Archives, Record Group 389, Records of the Office of the Provost Marshall General, https://aad.archives.gov/aad/record-detail.

3. "John D Biss," obituary, *The Saratogian*, November 8, 2008, https://www.saratogian.com/2008/11/08/obituaries-published-nov-8-2008/; "Biss John D," Nationwide Gravesite Locator, https://www.cem.va.gov/nationwide-gravesite-locator/.

Glossary

2nd Signal Service Battalion: "Training for intercept was to be conducted at Fort Monmouth, New Jersey. There were five signal detachments—at Fort Sam Houston, the Presidio of San Francisco, Fort Shafter in Hawaii, Fort McKinley in the Philippines, and Quarry Heights in the Panama Canal Zone—[that] provided Army intercept. In January 1939, these six detachments were consolidated into the 2nd Signal Service Battalion." (Source: https://www.nsa.gov/History/Cryptologic-History/Historical-Events/Article-View/Article/2740643/signal-intelligence-service/)

B-17: Boeing B-17 Flying Fortress, an Army Air Force bomber. (Source: https://airandspace.si.edu/collection-objects/boeing-fortress-b-17-heavy-bomber-us-army-air-force/nasm_A20140772000)

B-25: North American B-25 Mitchell, an Army Air Force bomber. (Sources: https://airandspace.si.edu/collection-objects/north-american-b-25j-20-nc-tb-25n-mitchell-carol-jean/nasm_A19860003000 and https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196310/north-american-b-25b-mitchell/)

Bilge Can: The bilge is "the lowest point of a [boat]'s inner hull" (source: merriam-webster.com). A bilge can is used to remove water from that area of a boat.

Bolo: "A long heavy single-edged knife of Philippine origin used to cut vegetation and as a weapon." (Source: merriam-webster.com)

Carbonera rope: Possibly carbon-fiber rope.

Caribou: Possibly carabaos (swamp buffaloes). (Source: https://www.nationalmuseum.gov.ph/exhibitions/natural-history/carabao-family/)

Dayak: Indigenous peoples from Borneo. (Source: https://www.britannica.com/topic/Dayak)

G-2: During World War II, US Army Intelligence.

Kasavas: Possibly Cassava—"Any of several American plants (genus *Manihot*, especially *M. esculenta*) of the spurge family grown in the tropics for their edible tuberous roots which yield a nutritious starch." (Source: merriam-webster.com)

Katakana: "Form of Japanese syllabic writing used especially for scientific terms, official documents, and words adopted from other languages." (Source: merriam-webster.com)

P-40: Curtiss P-40 Warhawk. (Source: https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196309/curtiss-p-40e-warhawk/)

PBY: Consolidated PBY-5 Catalina. (Sources: https://www.history.navy.mil/content/history/museums/nmusn/explore/photography/aircraft-us/aircraft-usn-p/pby-catalina-aircraft.html, https://www.history.navy.mil/content/history/

museums/nnam/explore/collections/aircraft/p/pby-5a-catalina.html, and https://airandspace.si.edu/collection-objects/consolidated-pby-5-catalina/nasm_A19730277000)

Sago: "A dry granulated or powdered starch prepared from the pith of a sago palm and used in foods and as textile stiffening." (Source: merriam-webster.com)

Sea anchor: "A drag typically made of canvas that is thrown overboard to slow the drifting of a ship or seaplane and to keep its bow or nose to the wind." (Source: merriam-webster.com)

"shades of a barroom lassie": Likely rhyming slang for "when the gin came in handy."

Super-Pro: Hammarlund "Super-Pro" Receiver; a type of radio.

Trick: "A turn of duty at the helm usually lasting for two hours." (Source: merriam-webster.com)

Waco troop/cargo glider: Waco CG-4A Hadrian. (Source: https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/196272/waco-cg-4a-hadrian/)

Zero: Mitsubishi A6M Zero Fighter. (Sources: https://www.history.navy.mil/content/history/museums/nnam/explore/collections/aircraft/a/a6m2-zero0.html and https://airandspace.si.edu/stories/editorial/mitsubishi-a6m-zero-fighter)

Family Album

CCH Staff Rides
Leadership and Intelligence during the American Civil War

R. Emmitt Baker

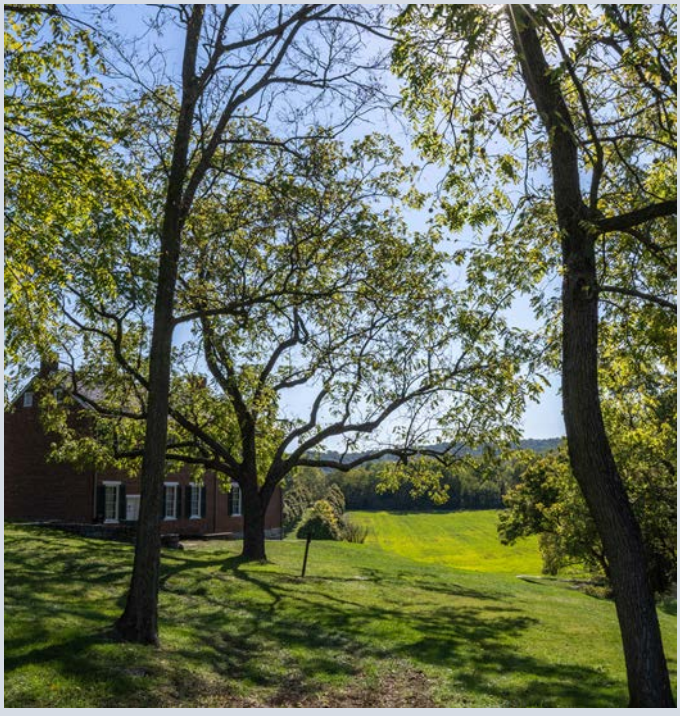
In the ever-evolving landscape of national security, history holds invaluable lessons for today's leaders. As National Security Agency (NSA) employees navigate the complexities of modern intelligence operations, making the connections between past and present is paramount.

During the Center for Cryptologic History's (CCH's) one-day staff rides to the Civil War battlefields in Antietam, Maryland, and Gettysburg, Pennsylvania, NSA employees witness firsthand the leadership decisions made by generals such as George B. McClellan and George G. Meade of the Union Army, and Robert E. Lee of the Confederate Army. By walking the grounds where these leaders once stood, employees gain profound insights into the complexities of leadership and decision-making under pressure.

The origins of CCH's Staff Ride program lie in the early 2000s, when it was primarily a traditional military staff ride led by US Air Force Colonel Marc Thompson, former deputy chief of the Central Security Service, which represents the cryptologic components of the US Armed Forces. Dr. Bill Williams, former chief of CCH, then adopted and refined the concept, where it has evolved into what it is today. Early in the program, staff rides were only conducted to Antietam National Battlefield. Current CCH Chief John Tokar, with the assistance of Williams and Emmitt Baker, began development of the staff ride to Gettysburg National Military Park in 2017, with the first ride taking place in 2018.

Since the CCH program's inception, NSA personnel have been immersed in the crucibles of history for a day, unlocking a wealth of insights that are essential for professional development and operational effectiveness. These courses now occur eight to ten times per year, and nearly 3,000 NSA affiliates have participated in them.

At Antietam and Gettysburg, intelligence played a crucial role in shaping battlefield outcomes. During CCH staff rides, NSA employees explore the intelligence operations of both Union and Confederate forces, from intercepted orders to reconnaissance efforts. By delving into the successes and failures of historical intelligence collection and analysis, attendees gain a nuanced understanding of the importance of timely, accurate intelligence in national security operations. An excellent example of this factor was when former NSA Deputy Director Chris Inglis made the correlation between McClellan's intelligence bias at Antietam and the American intelligence bias post 9/11 regarding weapons of mass destruction in Iraq.



Pry House: McClellan's Forward Observation Post, now the Field Hospital Museum. Here, employees visualize a major flaw in McClellan's leadership. His distance, from the battlefield and those under his command, cost him real-time, valuable intelligence.

By bringing together military historians and subject matter experts, CCH creates an immersive experience, engaging employees in rich discussions and sharing insights that transcend traditional learning boundaries. Through interdisciplinary inquiry, NSA personnel weave together the threads of history, intelligence, and leadership, equipping themselves with a holistic understanding of the challenges and opportunities inherent in their profession.

CCH's Staff Ride program provides indispensable tools for the professional and personal development of employees. By unlocking the lessons of the past, CCH empowers Agency professionals to navigate the complexities of the present and shape NSA's future.

In this issue, we bring you with us on an Antietam staff ride. In a future issue, we will share employee experiences on a Gettysburg staff ride.

Special thanks to the National Cryptologic School, the Pry House Field Hospital Museum, and the Antietam National Battlefield and Gettysburg National Military Park for supporting these staff rides and supplying many of the details we share about the battle on the next few pages.

Emmitt Baker is the staff officer at the National Security Agency's Center for Cryptologic History and manages their Civil War Staff Ride series. Outside CCH, and with a lifelong passion for history, he has been deeply involved in historical reenactments since 1996. Now residing in the very heart of Civil War history, he continues to immerse himself in the stories and experiences of the past, sharing this enduring love of history with fellow enthusiasts and the public.

Weapons demonstration at South Mountain.
From left to right: Emmitt Baker, Bryan Baumgardner, and Andrew Ford.

Re-creation of a Civil War ambulance at the Pry House. A repeated lesson throughout this staff ride is the necessity of strong, reliable supply lines and meeting basic human needs, especially in a crisis.

The Cornfield—one of the bloodiest US battlefield sites. Employees walk the field to see the unanticipated challenges the terrain presented to troop movements and coordination.

New York State Monument, one of many memorials for those who fought in the Battle of Antietam. While a study in leadership tactics, this staff ride also reminds employees of the individual and community lives and losses behind every decision.

Cannon with Dunker Church in background. Here employees learn about the battlefield situation in the early morning, variations of Civil War artillery, and how critical it was to use the right weapon for the right target and environment.

Bloody Lane, known before the battle as Sunken Road. When Confederates withdrew from this road, Union troops initially pursued them. But McClellan—who repeatedly overestimated the size of his enemies—ordered his forces to halt their advance, inadvertently saving Lee's center flank. Today, this action (or inaction) serves as an example of the tactical and human cost of communications breakdown and intelligence bias.

View of 8th Regiment, Ohio Volunteer Infantry Monument from Bloody Lane.

View of Bloody Lane trailhead marker and period fence.

Burnside Bridge, where Union forces' initial plans to take the bridge went awry, but initiative at the lowest level—from 51st New York and 51st Pennsylvania Infantries of the IX Corps—led to success.

Editor's Note
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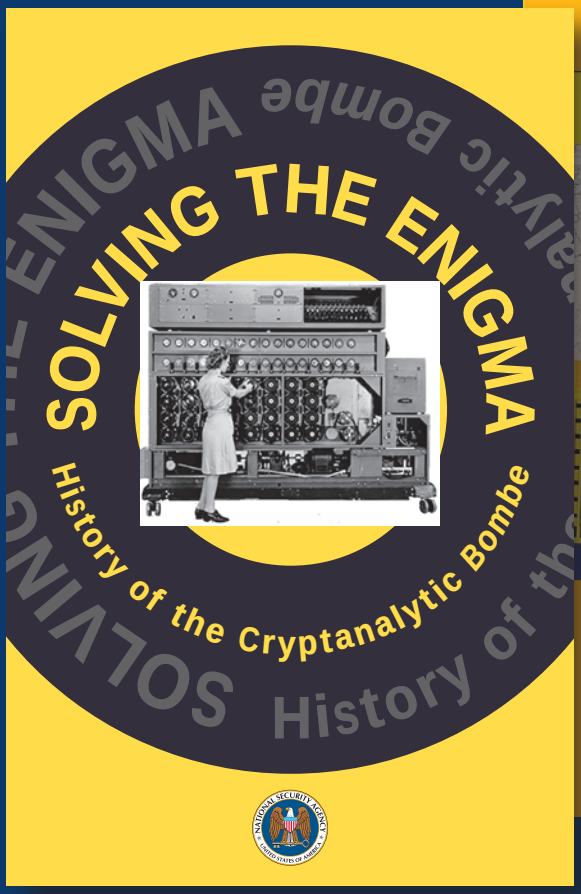

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