



The Link

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Fall 2003

CONFERENCES, AN ANNIVERSARY, AND A SURPRISE

ANNUAL GENERAL MEMBERSHIP MEETING – 2003 “HOMELAND SECURITY” THE THEME

The Fifth Annual General Membership Meeting of the NCMF was held at the Kossiakoff Center of Johns Hopkins University’s Applied Physics Lab, nestled quietly in a rural retreat west of Fort Meade, Maryland. NSA Deputy Director William Black, introduced by Foundation President John E. Morrison, Maj. Gen., USAF (Ret.) opened the meeting, contrasting the classical challenges confronting signals intelligence and security with the problems encountered today. Keynote speaker John O. Brennan, Director, Terrorist Threat Integration Center characterized the existing problems facing the DCI and the Center as his focal point for bringing the disparate pieces together. NCMF Vice President Eugene Becker presented a report on Foundation activities of the past year and the Foundation sponsored “a[ll] k[ids] a[re] Smart” for math instruction in our school systems

was briefed by CLP Program Managers Bernard Farkas and Morrie Cove. An update on the National Cryptologic Museum was presented by Museum Curator Jack Ingram, and Col. Bill Williams, USAF, reported on the work of the Center for Cryptologic History. Afternoon sessions featured Dr. Mark Lowenthal, Assistant Director of Central Intelligence for Analysis and Production and George Cave, Senior Advisor, Near East Division, in CIA’s Operations Directorate. Although the presentations were unclassified, they were delivered in a spirit of candor, relying on discretion. (One speaker introduced us to the term “sensitive,

but unclassified – SBU.”)

As was the case the previous year...it rained. Somehow this time it added to the ambiance of lunch in an agreeable setting and the opportunity to reminisce and associate with fellow

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OVERVIEW

Another General Membership Meeting is behind us. I, for one, greatly enjoyed the program, sobering as was the subject matter in a number of instances. It was good to meet old friends (and new), to trade war stories, and to collect feedback and ideas, while at the same time accounting for our corporate activities and sharing our plans. That's what these meetings are all about. Two aspects were disappointing: I wish we had greater participation so that more of our membership could share the experience and contribute to it. And I wish our photographer had shown up! (Evidently, as our editor suggests, the relative isolation of our location was more than he could handle, or something to that effect.) The hoped-for photo montage did not become reality for this issue. But I want to thank our Program chairperson, our speakers, and all who made it possible, especially our hard-working headquarters staff.

Good news/bad news on the Navy aircraft front: plans are being made for a possible EA3B to join the Air Force and Army reconnaissance planes in National Vigilance Park. While our pursuit of an EC-121, if successful, would have especially commemorated the Sea of Japan shootdown by North Korea, we are nevertheless pleased with the selection of a later, but representative, Navy platform. The bad news is that, with expectation of the uncertainties of winter approaching us, delivery will be delayed. We've sought this; we can wait a little longer. For now, note the inspiring rededication ceremony by the Air Force this past fall.

I am pleased that we – the Foundation – were able to assist the Center for Cryptologic History in the presentation of their Ninth Cryptologic History Symposium in October. Col. Williams, chief of the CCH, sent me a letter expressing appreciation for “the generous support provided by” the NCMF, and characterized it as essential to the success of the endeavor. It was our pleasure, and we extend our own

appreciation to those who made it possible.

And now, saving the best for last – it is with the greatest delight that I announce Dr. David Kahn's donation to the Museum of rare books from his world-renowned personal collection. It has long been my desire to see Dr. Kahn's collection come to NSA. His active participation as a “plank-owning” member of our Board of Directors has meant a great deal to us, and shown him the seriousness of our objectives. As recounted in this issue, the Foundation was able to facilitate the transfer from storage to Fort Meade. I'm certain we will hear more about this in the future.

John E. Morrison, Jr.
President

INCOMING

NCMF member Jim Willard enclosed with his holiday greeting to the staff an interesting account of a visit to Bletchley Park, once highly secret, now famous, headquarters of Britain's WWII signals intelligence operations. Jim, who is a former member of the American Cryptogram Association, and family members, Donna and Susan (present members), attended ACA's annual conference there 11-14 September. Having attended the previous year, where the venue was Christ Church, Oxford, Jim had briefly toured BP. This time he wanted to see more, especially the rare German ENIGMA used by the *Abwehr* (military intelligence service.) (“*The Link*, Spring 2000, noted the theft of BP's “G” model ENIGMA, later returned.) A veteran of the “vacuum tube” era in the 1950s himself, Jim reports being especially amazed at the rebuilding of the COLOSSUS, as recounted by Tony Sales at our Fall 2003 Cryptologic History Symposium. We appreciate his sharing of this experience.

KAHN'S RARE BOOKS COME TO THE NCM

Dave D'Auria, NCMF Acquisitions Committee Chairman

One of the world's rarest private book collections on codes and cryptology is now the prized acquisition of the National Cryptologic Museum. Dr. David Kahn, the celebrated author of *The Codebreakers*, *Hitler's Spies*, *Seizing the Enigma*, and *Kahn on Codes*, and one of the preeminent non-government experts and collectors in the world on the subject of Cryptology, donated his prized collection to the museum on 29 December 2003.

The collection was housed for many years at a record storage facility on Long Island, New York. Dr. Kahn (whose new book on the life of Herbert O. Yardley will hit bookstores in March) made the difficult decision to donate his collection in mid December 2003. The NCMF then made arrangements to insure, collect and transport the valuable collection from the Long Island facility to NSA. The first shipment of three pallets consisting of 66 boxes of rare books, notes, journals and manuscripts is temporarily housed in a secure climate-controlled facility at NSA.



Dr. Kahn's interest in the science of mathematics and the art of code-making and code-breaking began in his teens, and has continued unabated to this day. He has

written extensively on the subject of cryptology for almost 40 years. His landmark book, *The Codebreakers*, was published in 1967. His articles on cryptology and intelligence have appeared in such publications as *The New York Times*, *Atlantic Monthly*, *The Journal of Strategic Studies*, *Encyclopedia Americana*. He was for many years an editor at

Newsday, and has taught many courses on political and military intelligence at Yale and Columbia. He is also a founding co-editor of the scholarly quarterly *Cryptologia*, and serves on the Board of Directors of the National Cryptologic Museum Foundation.

Dr. Kahn's donated collection will be inventoried for incorporation into the museum holdings. After completion, select pieces from the collection will also be placed on periodic display at the museum.

MEMORIAL REGISTRY

Again, we must apologize for errors. Retired Army Colonel Richard L. Jones and several other sharp(er)-eyed individuals called attention to our having placed Col. James R. Clapper, Sr. in the wrong service – he was Army, not Air Force. (This also destroyed the romantic notion on the part of the editor that his son, Lt. Gen. James R. Clapper, USAF, shared the same service affiliation as his father.) We apologize to the General and his family, and hasten to correct the record. The following additions are noted.

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|-----|----------|-----------------------------|
| #39 | Honoree: | William J. Jackson, Jr. |
| | Sponsor: | Harry G. Rosenbluh |
| #40 | Honoree: | Thomas L. Kane |
| | Sponsor: | Anonymous |
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REDEDICATION OF C-130 MEMORIAL

On 30 September the 694th Intelligence Group, Fort George G. Meade, under the command of Col. Kathryn L. Gauthier, USAF, gathered to remember fallen comrades in the annual rededication of the C-130 that stands in National Vigilance Park, near the Museum. Among the distinguished guests this year was Lt. Col. Mark E. Simpson, USAF, son of 1st Lt. John Simpson, one of the 17 airmen lost in the 2 September 1958 shootdown near the Armenian border commemorated in the Park. Col. Gauthier delivered the following stirring



remarks:

“We have met to once again pay tribute to 17 of our Air Force brethren who gave their lives for our country. Many of us here today were not even alive – much less wearing our country’s uniform – when they

perished in the line of duty. A rededication ceremony such as this serves to re-light the eternal flame of memory, the flame of camaraderie, the flame of the love and deep respect that lives on in our hearts. Because of the aircrew aboard tail number 60528, that flame still burns brightly in a dark world, acting as a guiding star for our fellow countrymen, giving comfort to those who seek freedom from tyranny and fear, and warning to those who would try to extinguish hope.

“Forty-five years ago this month, a SIGINT reconnaissance-equipped C-130A –

an exact replica of the aircraft before us – took off from Turkey to collect intelligence against the Soviet Union. Inadvertently straying off course into Armenian airspace, the unarmed aircraft was fired upon by Soviet Air Force MiG-17s. The aircraft was shot down and all six flight crewmembers and 11 reconnaissance crewmembers were lost as a result. It was not until the Cold War ended that we were able to get an exact accounting of what happened that fateful day.

“During the Cold War, reconnaissance aircraft from the Air Force and our sister services had been downed both before and after the shootdown of September 1958. Their memories are marked by the 18 trees that surround the C-130, each symbolizing a type of reconnaissance aircraft lost during the Cold War. *But none witnessed such a large loss of life or was shrouded in as much uncertainty as tail number 60528.*

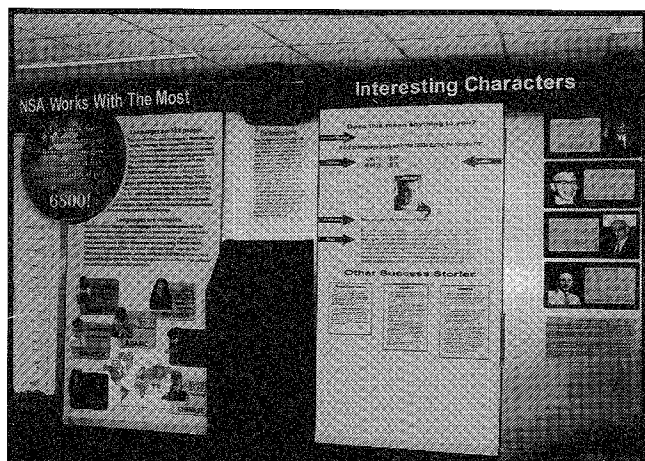
“The secrecy of the reconnaissance programs prevented recognition of the slain military personnel at the time of the incident.

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THE CHALLENGE OF FOREIGN LANGUAGES

On 15 September, as a feature of Language Week at NSA, Deputy Director Black and the NSA Senior Language Authority, Ms. Renee Meyers, presided at a ribbon-cutting ceremony for a new museum exhibit highlighting the importance of foreign languages to the accomplishment of NSA's mission. The interactive exhibit, entitled "NSA Works with the Most Interesting Characters," illustrates the complexity of language itself and how language analysts use their skills not only to translate, but to produce intelligence that helps shape our nation's history. One side highlights the staggering number of languages in the world and compares languages to people – how they are born, belong to families, and die. The other side shares the story of how, through their knowledge of language, their target, its culture, and world events, language analysts during the Korean War were able to accurately predict the Chinese Army entry at the Manchurian border. The exhibit also displays photos and brief biographies of notable crypto-linguists of the past – Norman Wild, James Child, John Hurt, and Sydney Jaffe – as well as some interesting facts about today's language analysts. The centerpiece of the exhibit is a replica of the Rosetta Stone and an interactive kiosk, complete with trivia questions, a language matching game, and a video presentation. Look for it on your next visit to the National Cryptologic Museum.



PEARL HARBOR REDUX

In its annual commemoration of Pearl Harbor Day, the Foundation planned a 3 December event, but had the schedule preempted by NSA's observance of the Museum's Tenth Anniversary. (See separate item.) We rescheduled 12 December, followed by a reception at the museum. Rear Admiral Donald Mac Showers, USN (Retired) was guest speaker. Drawing on some 31 years of active duty service, followed by continuing involvement in later years, making him privy to the literature and to controversy. RADM Showers delivered a concise presentation that whetted the audience appetite for more. Using the now familiar wartime designators, CAST, NEGAT, and HYPO (although this last has been so widely misused that he accepted it to designate activities on Oahu other than the intercept site it really identified), spoke about the U.S. Navy cryptologic and intelligence activities (Corregidor – later Melbourne, Washington, and Hawaii) supporting the Pacific Theater in the struggle against the Imperial Japanese Navy. He described the origins of the "stations," their respective roles at the outset of the war, and the evolutions that occurred after Pearl Harbor in order to concentrate support to the war effort. Rear Admiral Showers highlighted the strengths and weaknesses some perceived in that effort, presenting his candid views of these perceptions, the significance of the cryptologic effort, and the impact on the progress of the war effort. He "gave credit where credit was due" but also pointed out the problems and issues where he believed they occurred. The lively question and answer session proved as interesting as the talk itself. Responding to the old "Roosevelt connived us into war" school, he rejected a conspiracy out

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THE CORPS OF RECEPTIONISTS

For some time, the NCMF has wanted to increase awareness of its mission to the visiting public at the National Cryptologic Museum. To this end, it was decided to institute a new Foundation volunteer position, namely that of a Receptionist. It was envisioned that a Receptionist would not only welcome visitors to the Museum and answer questions about services available, but also could (1) inform the public about the Foundation's mission and the benefit that donations and membership provide, (2) offer the use of the Foundation-sponsored self-guided Acoustiguide audio tour, and (3) determine the demographics of Museum visitors, with the goal of assisting the Foundation's public relations efforts.

In mid-July 2003, the NCMF approached Mrs. Pat Clements (a volunteer docent at the Museum) and asked if she could help set up the new Receptionist position. (Recall the welcoming note in the Summer 2003 *Link*.) On first glance, this would appear to be a rather simple and straightforward task. On second glance, it was a bit more complicated. There were the usual myriad minor obstacles associated with setting up any new operation, but the two major issues to be dealt with were the acquisition of volunteers and the stabilization of the Acoustiguide system, "INFORM" – the handheld self-guiding tour device procured for the Museum by the Foundation. The Museum's antique power system had wreaked havoc on the sensitive Acoustiguide equipment and, quite

frankly, it had been "down" more than it had been operational. Through the good offices and hard work of Frank Saus (another volunteer), this once overwhelming problem was solved through the physical relocation of the unit and the addition of equipment upgrades. The acquisition of volunteers also proved somewhat daunting. Almost



immediately, we signed up three fantastic volunteers – Nancy Arteche, Bonnie Hohenberger, and Joyce Jacobs. Then our good luck ran out. Despite advertising via newsletters, the Fort Meade newspaper *Soundoff*, and word of mouth, we have not been able to fill the Monday and Friday vacancies, but we are still hopeful.

The very good news is that, with the exception of these vacancies, the volunteer Receptionist position is up and running very well. The Museum staff was exceptionally helpful in providing the physical necessities required. The old donation box has been replaced with one more visible to the public. The Acoustiguide system has been well received and is now widely used. The mission of the Foundation is being more widely understood, and we are learning more about our audience. Finally, it is apparent that the public truly appreciates having someone to greet them and to answer their questions. If you have not been to the Museum recently, please stop by and meet our new receptionists. If you would like to be a volunteer Receptionist, please contact us.

■

2003 CRYPTOLOGIC HISTORY SYMPOSIUM

The Ninth Cryptologic History Symposium was presented at the Maritime Institute, north of the NSA campus, on 30-31 October 2003. Subjects presented ranged from WWII – before and during the Cold War years, and a look at cryptology in literature. To assist, the Foundation undertook to pay, in advance, the reservation deposit required by the facility and to handle registration. Due to an agreement on the part of the Center for Cryptologic History (CCH), that promised non-attribution to presenters, the simple logistics squelch our hope of being able to have outstanding subjects reprinted here. Instead, we are limited to describing the program and hinting at what was missed by those not present.

The 30 October morning session was opened by Col. Williams and Dr. David Hatch of the CCH, followed by CIA Historian, Michael Warner, offering a look at “information warfare in three centuries.” Dr. Karl DeLeeuw, University of Amsterdam, discussed pre-WWII COMINT in the Netherlands and Dr. John Schindler of the CCH described the Polish Cipher Bureau “before ENIGMA.” Dr. David Hatch recounted the hair-raising loss of a SIGABA cryptomachine by the U.S. Army in Europe and its retrieval, intact, and Dr. Steven Huffman discussed the film “Windtalkers,” distinguishing fiction from reality.

After lunch, Dr. John Ferris, University of Calgary, reviewed the evolution of British cryptology between 1890 and 1945. (Dr. Ferris’ outstanding work on British Army SIGINT in WWI was reviewed in *The Link*, Winter 2002.) Tony Sale, formerly of Bletchley Park, who made a presentation at the Foundation’s Third Annual Meeting 12 October 2000 (*The Link*, Fall 2000), drew on his firsthand experience with COLOSSUS to describe the re-creation of this computing pioneer project. Dr. Colin B. Burke, University of Maryland Baltimore Campus, described the WWII German machine dubbed SHARK and “what it was good for.” Mrs. Jennifer Wilcox, Assistant Curator in the NCM ended the day with a salute to “Women in Cryptology.”

The second day was packed: Under the theme, “The Cold War,” Daniel J. Knauf,

Director of Information Security for Johnson & Johnson, contrasted the approaches of government and industry to COMSEC (communications security). Popular British writer, historian, and intelligence specialist Nigel West reviewed VENONA, eight years after declassification. Dr. John Schindler (CCH) offered William Weisband as a “mole” suspect in the ranks of the Armed Forces Security Agency, NSA’s predecessor. Retired CCH historian Dr. Thomas R. Johnson, took a look at the cryptic’s (occasional) friend, “second-story cryptanalysis” (aka “black bag jobs”). NSA Deputy Director William B. Black – substituting for Director Hayden, who was delayed in his anticipated return from a trip – then addressed the gathering on the importance of a knowledge and sense of history. Former CCH historian Jill Frahm described “SIGINT in the Pusan Perimeter” and Sharon Maneki (CCH) traced the Korean War legacy in “Reinventing SIGINT: Support to the Cockpit in the Korean and Vietnam Wars.” The afternoon session featured Hayden Peake, curator of the CIA Historic Intelligence Collection, on the current state of Intelligence literature and Dr. James Burrige, Deputy Special Assistant to the DCI for Foreign Intelligence Relationships, on “SIGINT in the Novels of John Le Carrè.”

NOTED IN PASSING

The Washington Post runs an occasional column, “Road Trip,” featuring automobile day trips with the District of Columbia as the usual starting point and an excellent color map of points of interest en route. In the issue of 5 October 2003 the subject was “Oktoberfest at Blob’s Park,” referring to the popular *Biergarten* and dance hall off Maryland Route 175 just north of the Museum. Writer and guide Karen-Lee Ryan noted “The Spy Museum’s older brother, the National Cryptologic Museum,” clearly labeled on the map by Jerome Cookson. She added “...in Fort Meade, explore the mysterious world of espionage at the National Cryptologic Museum, where you can learn about ‘windtalkers,’ Civil War signal flags and supercomputers.” (Yes, and hundreds of other things. But thanks, Ms. Ryan and *The Post*.)

REDEDICATION OF C-130 MEMORIAL

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Their loss was mourned by fellow soldiers, sailors, airmen, and marines in similar programs, but the fallen could not be accorded public honors.

“Today, we honor the memory of all of our colleagues in the aerial reconnaissance community who pressed the envelope and placed themselves in harm’s way without question, without hesitation, and without remorse. They epitomize the warrior spirit that has kept this nation free and victorious in every conflict. Their legacy is very much alive today.

“These fallen airmen have spoken to us across the decades, as if to say:

‘Take up our quarrel with the foe:

To you from failing hands we throw the torch;

Be yours to hold it high.

If ye break faith with us who die,

We shall not sleep...’

“Today, it is not their voice that calls out to remind others of their noble sacrifice: that voice is now ours. Theirs is no longer the hand that salutes smartly when Old Glory passes by: those hands are now our own. Theirs is no longer the face that holds true, fast, and ever-watchful for enemies of liberty: that face is now ours. It is for us – the living – to be rededicated here to the mission which they so nobly executed. We will never forget them.”

A MEMBERSHIP REMINDER

All Hands, FORAC: If you find it difficult to recall the date your membership renewal in the NCMF is due, just check the mailing label on your copy of *The Link*. There you’ll find the anniversary date.

By the way, one of the benefits of your Foundation membership is discount shopping at the Museum’s Gift Shop, operated under the Agency’s Civilian Welfare Fund. The CWF features a line of unique NSA Logo merchandise that includes Accessories; Mugs/Cups/Glasses; Office Supplies (i.e., paperweights, pens, etc.); Golf items; Collectibles (i.e., ornaments, keychains, etc.); Clothing; and New Items (i.e., spiral light pen, clip-on watch, etc.). Remember: while the Museum and Gift Shop are open to the general public, showing your membership card at the Gift Shop entitles you to a 10% discount. The hours for the Museum Gift Shop are 10:00 a.m. to 3:30 p.m. Monday through Friday and 10:30 a.m. to 1:30 p.m. on the 1st and 3rd Saturdays of the month.

PEARL HARBOR REDUX

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of hand. He was adamant that no exploitation of the Japanese Fleet Code, JN-25, had permitted foreknowledge of the Pearl Harbor attack. Although well aware of controversy over the roles of “the Redman brothers” in Washington, he had no firsthand knowledge-being in the Pacific theater for the duration – and he declined to engage in scuttlebutt and speculation. His thoughts on why FRUMEL declined to join Central Bureau, and the differences between Naval (Nimitz) and Army (MacArthur) attitudes toward radio intelligence (COMINT) were especially interesting. It is hoped that an NSA video-taped record of the presentation can become available to interested members for a nominal fee.

ANNUAL GENERAL MEMBERSHIP MEETING – 2003

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members. Our photographer failed to appear, evidently lost in our bucolic setting. Elsewhere in this issue you'll see the account of a member's visit to Bletchley Park, with the memories conjured up there. By contrast, we seem to have obliterated most evidence of comparable undertakings here in the United States during that parlous time. The Army's "BP" – the old Munitions Building, the "tempos" of Arlington Hall Station, Vint Hills Farm – and the Navy's Nebraska Avenue locale have been razed or otherwise lost the historical "romance" of cryptology in the WWII era. But in gatherings such as this, memories dominate among the members of that generation and their "children". For those who came later, the National Cryptologic Museum attempts to recapture how it looked, what it did, and who did it...the work that helped win a global war. Thanks go to our "headquarters staff" and their volunteer associates for the work that went into the planning and executing of another fine meeting, and to the speakers, for their informative look at what was and what is.

FOR THE BOOKSHELF

David Kahn, *The Reader of Gentlemen's Mail: Herbert O. Yardley and the Birth of American Codebreaking*. New Haven, Connecticut: Yale University Press, 2004. (ISBN:0-300-09846-4)

Herbert Osborn Yardley (1889-1958) is, arguably, the most fascinating character in American cryptologic history. The first professional cryptologist in American government circles to be publicly recognized with a medal (the Distinguished Service Medal), given a hero's burial at Arlington and a bronze plaque on the wall of the National War College, where he established America's first military

cryptologic organization, Major Yardley became an embarrassment, rather than a role model for later generations. There is no Yardley Auditorium at the National Security Agency, which is, in part, his legacy; there is no Yardley Building there. He is remembered, rather, as one who broke faith with his government. He was shunned. There was to be no role in cryptology in the Second World War for the hero of World War I and the twenties, either for America or its allies. What led to this denouement?

This is the story David Kahn, celebrated author of *The Codebreakers*, set out to uncover. Combining his talent for research, his lifelong interest in HOY (as Yardley was frequently alluded to), and a year's study affiliated with NSA's Center for Cryptologic History in 1995 – which afforded him access to all unclassified Yardley archives held in NSA, Dr. Kahn has produced a compact, easily read, but tightly reasoned appreciation of Yardley the man, Yardley the "cryppie," and Yardley vs. Friedman – the man on whom the title, "father of American cryptology" came to rest.

Other than his own (often veiled or questionable) writing, virtually all information about HOY until now had reached researchers and professional cryptologists alike through the filter of William F. Friedman, his organizations and his disciples.

When the State Department withdrew its financial support for Yardley's Army-co-sponsored covert cryptologic operation in 1929, Army soon followed. HOY was out of work. The idealistic attitude of the Secretary of State (expressed in the paraphrase chosen for the title of Kahn's new book) and abandonment by the Army horrified Yardley that his nation was closing its eyes and ears to a source of secret intelligence. (Besides, he needed a replacement source of income.) He "went public" in his sensational 1931 book, *The American Black Chamber*. He was a "loose cannon," if not an outright traitor. Besides, Army was quietly building a formal cryptographic security

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FOR THE BOOKSHELF

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organization around a promising younger man of scientific bent, also a WWI veteran, named W. F. Friedman. He and his people took to heart the Yardley experience and sealed their lips. Yardley was reduced to self-promotion, peddling “invisible ink,” trying to publish, trying to break into Hollywood, producing cipher puzzles (termed “Yardleygrams” to trade on his notoriety). He seemed no longer to be the man he was in the earlier years of mastery and triumph.

Kahn reveals Yardley as a man, warts and all. Charismatic, macho, a “skirt-chaser,” an organizer and cheerleader for his people and his work, a drinker, but not a drunkard. Not a traitor – certainly not in the sense of selling information. (Ladislav Farago’s charge that HOY sold crypto secrets to Japan is tersely and convincingly refuted by Kahn’s research.) His talent as a cryptanalyst was modest, unscientific, rapidly becoming outdated. He was smooth and gentlemanly in the presence of ladies and those he would persuade, a glib salesman, yet crude in thought and language shared with “buddies.” An excellent golfer, a poker expert, later to publish a book on the subject. During a time when the ethics, morality or legality of his work was inchoate, he was more concerned with the romance, the attraction, of “reading the other fellow’s mail.” But he played a role that, for the first time, can be appreciated more fully.

Yardley was an excellent leader and organizer and – to a degree – administrator. He seems to have given little thought to training or considering the future; he did nothing to raise the standards of U.S. government practices. But he went to China in the late ‘30s to organize and build a communications intelligence effort against the Japanese for Chiang, which involved training and development. (Upon his return, at least some of his knowledge of Japanese cryptography was debriefed by request of the Army to Friedman’s people, with Frank Rowlett as the interlocutor. Mr. Rowlett was not greatly impressed, either

with HOY or his technical data.) Nominated by the Army to assist the Canadians, he went to Canada to build their COMINT effort, only to be forced out by Britain and (he suspected) Friedman’s influence. With the entry of his country into World War II, Yardley found employment with the Office of Price Administration, watching food prices, “gouging” and profiteering. (While HOY did make it into the Army’s Hall of Fame at Fort Huachuca, Arizona, his legacy there is, appropriately, a mess hall – or dining facility, perhaps they call them these days – named in his memory.)

Kahn’s concentration is on Yardley. His wives, Hazel “the girl next door,” and later the lovely and crypt-talented Edna, are lightly limned, his son, Jack, hardly mentioned. (One is left wondering whether Edna’s role was more as companion or technician – or both – much as speculation has swirled about Elizebeth and William Friedman’s respective cryptologic abilities.) In his attempt to make meaning of Yardley’s role in history, Kahn concludes that “he gave America a new source of intelligence” (238). In the strict sense, this is untrue. Crypt intelligence – information derived from “reading others’ mail” – figured at earlier times, especially during the American Civil War. The ethical or moral dilemma seldom arose during crises. Old Ben Franklin, our first Postmaster General, inherited a full appreciation of the British concept that the postal system belonged to the Sovereign and was, by his consent, extended to his people. Only a fool (or “an honest simpleton,” to quote Secretary of State Stimson,” p. 98) would allow that to become license to plot via that medium against the Crown, thus “the Crown” could and would “look in” as it felt necessary. How was that to apply in the New World? Would the component colonies – the thirteen new states – or the United States not insist that, regardless of new technologies of communication, the State had an imperative that overarched the privacy or even “the law”? (That tension continues to engage us today.)

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FOR THE BOOKSHELF

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Then, too, the technology of communication must also be considered: the messengers of the 18th Century, the wire, cable and military visual systems of the 19th, and the wireless radio of the 20th. Interception of cable traffic to feed Yardley's Cipher Bureau in the Twenties was quite a different challenge from the increasing volumes of radio traffic available in the late Thirties to Friedman's Signal Intelligence Service and its Navy counterparts.

The late lamented Frank Rowlett believed that *his* most significant contribution to the winning of WWII was not in the arena of COMINT – in reading PURPLE – but in the development of SIGABA, “America's ENIGMA.” What good would it have done, he would ask rhetorically, if we had broken the enemy's codes and could not securely and promptly communicate the information to our generals? What if matters were reversed, and the enemy could read our most secret communications at will? Little doubt is left here in the reader's mind that Yardley could not have given birth to a SIGABA. Nor, given his disinterest in wired rotor technology, can one imagine Yardley on top of the exploitation of ENIGMA.

The most engaging part of the book to this reviewer, is in the final chapter, where Kahn draws on his understanding of the men and compares Yardley and Friedman:

Friedman, though he knew he was a better cryptologist than Yardley, and though he planned better and carried Yardley's founding stroke of genius to completion, seems to have envied him. No documents substantiate this feeling—though it may show itself in Friedman's reaction to the publication of *The American Black Chamber*—but people who have studied the two sense it. Friedman's feeling of inferiority seems not to have stemmed from the fact that Yardley was older and Friedman's precursor and at first his idol, though these facts may have contributed to it. The feeling arises from their personalities. Friedman seems insecure. He always wore a tie, insisted

on being addressed as Mr. Friedman, was punctilious. Yardley seems not to have been concerned about those things. He wore muddy boots when hunting, at least later in life didn't put on a tie, and watered his lawn in his underwear. But Friedman's envy probably came from the fact that Yardley appears to have succeeded with women and Friedman wanted to. Yardley had self-confidence, which Friedman lacked. Friedman's greater success did not compensate for this, and it permanently distorted his attitude toward Yardley.

(Contemporaries who knew the private Friedman far better than the reviewer—who was always too awed to venture much more than a “good morning, sir,” in the hallway—may fault some aspect of this assessment, or see in his “punctiliousness” the precise, orderly, scientific mind that was the foundation of NSA in 1952. But it accords with impressions gained over five decades and a reading of the Friedman papers and correspondence.)

Placed in historical perspective, what publication of *The American Black Chamber* did, in Kahn's estimation, was to humanize and to popularize cryptology for America and the world. “He changed the climate for cryptology and helped it grow” (242). “Those are Yardley's legacies—the legacies not of the world's greatest, but of its most famous cryptologist.” Perhaps it is understandable that the author of the once controversial *The Codebreakers* would see that pony in the stable, while professional cryptologists the world over would yearn for the old simple days of “black chambers” and curse the name of HOY. But the reality is that the past can never return; the genie is out of the bottle.

Gentlemen aside, nations do strive to read other nation's mail—and that of plotting non-nations. Yardley's hand wins.

David Kahn has done it again. You will want a copy of this book—maybe two, if you like to mark up books. It will reward you on a first reading and warm a winter's night. Whether or not you fully accept his conclusions, this begs to be a contender as the most important book on cryptology of the year. ■

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