

# The Link

BULLETIN OF THE NATIONAL CRYPTOLOGIC MUSEUM FOUNDATION, INC.

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## LAURELS AND LECTURES

The NSA/CSS Hall of Honor was created in 1999 to pay special tribute to the pioneers and heroes who have rendered distinguished service to American cryptology, and to serve as inspiration for those who follow in their steps. The individuals chosen for this honor represent the best and brightest of those who have dedicated their lives to deriving intelligence from foreign communications and electronic signals and to protecting those of the United States. They are the pioneers, who shaped and led America's cryptologic endeavors.

The legacy of these distinguished honorees has been characterized by innovation and an ability to overcome the many cryptologic challenges that our nation has faced over time. Honored in history, their eyes were always on the future. While the details of specific accomplishments have been and often must yet be veiled in



necessary secrecy, their selection for this honor permits the American people to gain a sense of the incredible feats and immeasurable contributions made by these individuals and their associates in the preservation of our way of life.

The annual Hall of Honor Ceremony for 2005 took place on Wednesday afternoon, 30 November, with Deputy Director Bill Black officiating. This year's honorees were: **Dr. William A. Blankinship** (cryptomathematics and computer science); **Francis A. Raven** (cryptanalysis); **Arthur J. Salemm** (cryptologic linguistics); and **Rear Admiral**

**Joseph N. Wenger**, USN (pioneer Naval cryptologist and executive leader in peace and war). Their commendations follow.

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## OVERVIEW

This was a busy Fall season! The annual Hall of Honor ceremony, our General Membership Meeting of the NCMF, the Cryptologic History Symposium, the “decommissioning” of the Naval Security Group Command, a special tribute to the memory of USS Pueblo, and an important donation to our New Museum Building Fund from General Dynamics.

I could not help pondering, with the election of RADM “Joe” Wenger (and two other WW II Navy veterans out of the four) to the Cryptologic Hall of Honor, the recent announcements that—as part of re-structuring within the Navy - the Naval Security Group Command (NSGC), proud inheritors of the legendary OP-20 of WW II fame and, in a very real sense, the last of the “service cryptologic agencies” (or “elements”), was apparently going the way of its counterparts in the Army and Air Force. It will take many of us a long time to stop saying “NSG.” And to think of Navy’s cryptologists as “Information Operations” specialists will also take some adjustment.

Our Annual General Membership Meeting was a good gathering of friends, as is obvious from the account here. While I was personally unable to attend the biennial Cryptologic History Symposium, I was impressed with the range of subjects and the caliber of speakers lined up by the Center for Cryptologic History. Attendance at the two-day symposium and our Annual Meeting the day before is, I realize, a challenge even for the local audience. I regret the extra difficulty for those from out of town. We are studying ways of making the experience and the information imparted available to a wider audience.

We are honored and deeply appreciative to have received from General Dynamics, C4 Division, a donation of \$10,000 for the NCMF New Museum Building Fund. A plaque presentation will be held in December, along with a ceremony at their Linthicum, Md., office at that time, and will be reported in the Winter issue of *The Link*.

In a different vein, we participated in support of a ceremony in which Dan Hearn and the Intelligence Reconnaissance Fund dedicated a Museum plaque to commemorate “the Pueblo incident” and the suffering of the men—and their families—affected by North

Korean brutality. Dan has been a staunch supporter of the National Vigilance Park and the Museum, and it was good to see him again, from his home in San Diego, along with survivors and families of Pueblo’s ill-fated crew.

John E. Morrison,  
President

## NSA’S NEW DIRECTOR OF RESEARCH

LTG Keith B. Alexander, Director, National Security Agency/Chief, Central Security Service (NSA/CSS), has welcomed Dr. Frederick R. Chang to his senior leadership team. Dr. Chang will serve as the Director of Research and will lead research and technology development programs at NSA/CSS.

“I am elated to have Dr. Chang join the NSA/CSS leadership team as the Director of Research,” said LTG Alexander. “A forward-thinking strategist, Dr. Chang brings to the table a wealth of experience in the technology and research arenas within the private sector. I’m confident that under Dr. Chang’s innovative leadership, our R&D organization will raise the level of its research efforts and enhance our relationships with our partners in private industry.”

Dr. Chang most recently served as Director, Center for Information Assurance and Security, and Research Professor, Department of Computer Sciences at The University of Texas at Austin. He holds a Ph.D. and Master’s degree in Cognitive Psychology from the University of Oregon, and a Bachelor’s degree in Experimental Psychology from the University of California, San Diego. He also completed the Program for Senior Executives at the Sloan School of Management at the Massachusetts Institute of Technology.

Dr. Chang is a member of the NSA Technology Panel, as well as a member of the Committee on Telecommunications Research and Development, Computer Science and Telecommunications Board, of the National Academy of Sciences. Dr. Chang officially began his position with NSA/CSS on 19 September 2005.



**Dr. William A. Blankinship** (1922-1998) broke new ground in the research and application of mathematics to cryptography and in computer programming. He formulated a broad cryptanalytic theory that provided the foundation for an entire branch of cryptanalysis. He was also an exemplary teacher and mentor, who inspired a generation of cryptomathematicians.

Dr. Blankinship earned his Bachelor's degree in mathematics from the University of Virginia (1941) and a Doctorate in the same subject from Princeton (1949). From 1943-'44 he was an instructor at the University of Illinois. A Naval officer in the late 1940s and early '50s, he distinguished himself in mathematical research and served as chief of cryptanalysis at a U.S. Navy field station.

After joining NSA as a civilian in 1954, he served in a variety of positions related to cryptanalytic research, computer software, and information processing. He developed and taught the pilot offering of a course that remains in the core of the cryptanalysis curriculum. An early champion of special-purpose computing devices, by the 1970s he was the Chief Scientist for the Office of Research. He was also a frequent contributor to NSA's professional journal of the time, the *NSA Technical Journal*. His programs and projects came to play a central role in shaping the design of modern U.S. cryptography.

Dr. Blankinship retired from NSA in 1979 and passed away in June 1998.

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**Francis A. Raven** (1914-1983). Coming from distinguished service with the Navy during World War II, Brooklyn-born Francis A. "Frank" Raven quickly established a reputation as one of NSA's top cryptanalysts. Graduated from Yale in 1934, he was commissioned in the Naval Reserve and proved himself a bright and talented cryptologist. Called to active duty in 1940, he served initially as a communications security officer. He developed an interest in the analysis of cipher machines and focused his attention on Japanese cryptosystems.

His primary contribution during World War II was the breaking of Japanese low-level cipher messages. Later in the war, he broke the Japanese Naval system known by the United States as JADE, a relative of the high-grade PURPLE Diplomatic cipher. As part of an American-British team, he also played a central role in breaking the Japanese Naval Attaché machine cipher called CORAL.

Mr. Raven joined the Armed Forces Security Agency (AFSA) upon its establishment in 1949, serving as Deputy Technical Director for Production. He continued in that capacity as NSA replaced AFSA in 1952. In 1956, he became only the fourth NSA employee to receive a "super-grade" promotion. He expanded and modernized the scope of training at NSA, originating NSA's Junior Mathematicians Program and developing basic and senior cryptologic courses (CY-100 and CY-600). For his many accomplishments, he received the Air Force Exceptional Civilian Service Award, NSA's Exceptional Civilian Service Award, and NSA's Meritorious Civilian Service Award.

Mr. Raven retired from NSA in 1974 and passed away in December 1983.





**Arthur J. Salemme** (1923-1999). A native of Boston, “Art” Salemme was an expert Russian cryptolinguist, a superb lexicographer, an effective teacher, and a prolific author. During World War II, with the Army, he worked on traffic analysis of Japanese communications; in his later years with NSA, he was a catalyst for pioneering breakthroughs of language barriers and problems.

Mr. Salemme earned Bachelor’s and Master’s degrees at Georgetown University and began his cryptologic career in 1947 at Arlington Hall, where he enrolled in an intensive Russian course. From the 1950s to the mid-1970s, he performed pioneering work in machine translation. His insistence on precision made him one of the best lexicographers of his time, and he became a leading specialist in Russian and German while simultaneously supervising a number of high priority projects that met critical cryptologic requirements.

For years, he served as the editor of NSA’s *Cryptolog* and wrote numerous articles that improved the way NSA language analysts functioned. His last position at NSA was in the Language Research division, where he served as an expert consultant and helped to shape language training. He was the first chairman of a panel to judge Russian language proficiency of candidates for professional certification in that language. He also assisted the FBI and the Patent and Trademark Office in establishing, for the first time, an effective system of quality control for official translations.

Mr. Salemme retired from NSA in 1979, but continued to challenge and entertain fellow alumni of the Agency with his “doubleXcrostics” puzzles. He passed away in April 1999.

**RADM Joseph N. Wenger, USN** (1901-1970). Rear Admiral Wenger played a leading role in the development of both the Naval Security Group Command and the National Security Agency, and was one of the most influential figures in modern American cryptologic history. He was a pioneer in the development of machines for use in cryptanalysis, and among the first to recognize the need for centralization within the naval Communications Intelligence (COMINT) establishment. More than anyone else, he was responsible for establishing a Navy-wide cryptologic organization, and he carried that conviction into joint-service and national-level cryptologic centralization.

Graduated in 1923 from the U.S. Naval Academy in Annapolis, Joe Wenger rotated between sea duty and OP-20-G, the Navy’s cryptologic element of the World War II era. As a radio intelligence (as the Navy then termed COMINT) officer for the Asiatic Fleet from 1932-1934, his reports on Japanese Imperial Fleet maneuvers demonstrated the importance of radio traffic analysis. Later, he helped create OP-20-G’s Pacific Ocean collection network, and also played an important role in launching the Navy’s efforts in machine processing—fore-runner of computers.



After Pearl Harbor, he assisted in designing the reorganization of the Navy’s COMINT structure, changing OP-20-G from decentralized to centralized operations, concentrating direction and application of talent and resources to meet priority needs. After the war ended, he served as Deputy Director for COMINT at the Armed Forces Security Agency (AFSA) and, in 1952, became Vice Director—the position later termed Deputy Director—of the successor organization, the newly established National Security Agency. In 1953, RADM Wenger received the National Security Medal from President Eisenhower for his planning and organizational work in communications research. After his retirement from the Navy in 1958, he continued to serve as a member of the NSA Scientific Advisory Board.

Rear Admiral Wenger’s professional involvement in cryptology ended only with his death in 1970.

## USS PUEBLO AND CREW COMMEMORATED



*As NCM Curator Pat Weadon looks on, IRF President Dan Hearn presents the plaque to NSA Deputy Director Bill Black*

On 07 September, National Security Agency Deputy Director **Bill Black** presided over a ceremony at the museum commemorating the North Korean attack and seizure of the *Pueblo* (AGER-2) on the high seas 23 January 1968. During the ceremony, the Intelligence Reconnaissance Fund dedicated a bronze plaque in memory of the Captain and crew of the *Pueblo*. In his remarks, Mr. Black spoke of his own role in investigating the capture of the ship and said that his impression of **Captain Lloyd Mark Bucher's** actions during the incident could be summed up by the following story of events a year later.

After a personal phone call to Mrs. Black from General Morrison, then NSA Assistant Director for Production, explaining why her husband was going to be spending New Year's Eve in San Diego rather than with her, Mr. Black and his investigative team arrived on the West Coast to meet the returning crew of the *Pueblo*.

Following six-weeks of exhaustive investigation, Mr. Black was present in the hearing room with the group of CT's who had assisted in the damage assessment. Mr. Black said that, however you judge the *Pueblo* and who ran it, the part of the story he would never forget was approaching the table where the CT's were sitting. He said to them "you now know more than anyone else will ever know what took place at the time of the incident and the 11 months thereafter. Tell me, what is your impression of Bucher?" They looked at him and replied, "We have anticipated this question and discussed our response amongst ourselves in great detail and we tell you this -- Give him a ship tomorrow and we will be with him".



*Pueblo Veterans (l-r) Harry Iredale (Oceanographer), Carl "Skip" Schumacher (LTjg), Tom Massie (Fireman), and Steve Harris (LT)*

Unlike USS *Liberty*, a "floating field station" under national tasking, *Pueblo* was a US Pacific Fleet tactical resource, comparatively small and virtually unarmed when it was seized on the high seas by North Korea in 1968 and its crew imprisoned for nearly a year. The agony of the crew's ordeal captured the attention of **Dan Hearn**, a senior official and Defense contractor. Mr. Hearn's career was spent in association with the defense and intelligence communities as a consultant and also as VP & General Manager of the Greenville, Texas, Division of LTV. This division was the contractor for the conversion/installation of several intelligence gathering systems, including the USS *Pueblo* and various airborne platforms. Hearn became instrumental in the establishment of the Intelligence Reconnaissance Fund, a non-profit enterprise to recognize and provide educational activities on behalf of personnel engaged in the sea, land and air or space reconnaissance missions of the "Top Secret Silent War." (The Fund, of which Mr. Hearn is president, also seeks to recognize the lives lost by aircrews of the USAF C-130 shot down over Soviet Armenia in 1958, the USN EC-121 shot down off the coast of North Korea in 1968 and the USAF RC-135 lost off the coast of the Kamchatka Peninsula in 1969. Only recently has recognition by the US Government been afforded to the forty-three fallen victims of these activities, honored in the Museum and in the National Vigilance Park adjoining.)



Speaking to the assembled group of survivors, families and others, Mr. Hearn related his own past to the sacrifices of those honored. He noted that his professional career had revolved around the intelligence systems developed throughout his tenure at LTV. He added that he considers his work with the intelligence community to be the high point of his own career. The unveiling and presentation of a commemorative, memorial plaque in the National Cryptologic Museum symbolizes the goals of the IRF and the sentiments he expressed.

After the ceremony, a light lunch was hosted in the Museum's MAGIC Room by the Foundation.



# 2005 HISTORY SY

The 2005 Cryptologic History Symposium, an unclassified event held at the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland, by NSA's Center for Cryptologic History (CCH) 27-28 October, attracted over 220 people interested in cryptology during the Cold War. For the first time, the symposium, now a biennial event, focused exclusively on the post-World War II period – which demonstrates the growing amount of material now available on the postwar era. Thanks to **Dr. David A. Hatch**, the NSA Historian, brief notes on the program follow.

**Dr. Cees Wiebes**, from the University of Amsterdam, began the symposium with a paper on the Peterson espionage case of the early 1950s as seen from the perspective of the Netherlands, based on newly declassified documents. [Taking place virtually on the eve of NSA's birth, the case exposed the sensitive new Agency to undesired publicity. Mr. Joseph S. Peterson, Jr., an Army and later NSA analyst, had maintained an unauthorized contact with Col. J.A. Verkuyl, a Dutch liaison officer and fellow cryptologist, and passed information to him. He was fired from NSA on 1 October 1954, arrested, and became the first person charged under a new federal statute intended to protect communications intelligence. Peterson pleaded guilty, avoiding the public revelation of the material involved, and was sentenced to serve seven years in prison. He was released on parole in 1958. Polmar and Allen, *The Encyclopedia of Espionage*. –Ed.]



*Dr. Cees Wiebes*

This was followed by a series of presentations on VENONA. NSA's **Robert L. "Lou" Benson**,



who played a central role in the release of the VENONA material in 1995, provided a "behind-the-scenes" look at how the decision to declassify VENONA was made. **Dr. John Schindler**, a former member of the CCH and briefly thereafter historian of the Naval Security Group Command, now on the staff of the Naval War College, followed with a discussion of the Russian language version of one of the most well-known VENONA decrypts, which indicated Alger Hiss had been working for the Soviets. Dr. Schindler's presentation showed that the English translation accurately reflected what was in the original Russian text. A representative of Dr. Robert Heibel from Mercyhurst College then provided an informative and well-received summary of that institution's ongoing project to provide a user-friendly computer index to the VENONA transcripts.

*Dr. John Schindler*

At lunch the first day, **William T. Kvetkas**, of the National Cryptologic Museum Foundation, a retired NSA official, shared a fascinating article he had recently prepared on the final days of the "Bombe." After World War II ended, the East German police continued to use the ENIGMA machine to encrypt police communications. When the well-known Berlin tunnel was in operation, American analysts reactivated the WW II-era bombe to aid in decrypting these transmissions. With the end of the tunnel operation the bombe ended its operational mission. (The last known surviving bombe, a U.S. Navy model, formerly on exhibit at the Smithsonian, is now on display in the National Cryptologic Museum.)



*Nigel West (r) with Symposium participants,*

The afternoon session started with an entertaining talk by popular British specialist **Nigel West** about the British perspective on VENONA. The next paper was by **John Fox**, the historian at the Federal Bureau of Investigation, who presented an informative overview on the role VENONA played in the development of the FBI's counterintelligence policy. **Steve Usdin**, a Senior Editor at BioCentury Publications, then provided a fascinating account of how he learned, in a very personal way, about the history of two Americans in the Intelligence Community who defected to the Soviet Union, Joel Barr and Alfred Sarant. His book on this topic, *Engineering Communism*, has now been published.

**Dr. John Haynes** from the Library of Congress concluded the first day's sessions with an interesting talk on VENONA and the impact it has had on historiography in the academic world. He also read portions of a paper by his Emory University

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# SYMPOSIUM ON CRYPTOLOGY

*A Symposium Panel*





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## SEVENTH ANNUAL GENERAL MEMBERSHIP MEETING

The annual General Membership Meeting of the NCMF took place at the Kossiakoff Center in Laurel, MD, on 26 October 2005. With introductory remarks by the Foundation president, Gen. Morrison, NSA Deputy Director **Bill Black** set the stage with his annual informative update on the status of NSA/CSS today as seen from the inside. He commended the NCMF goal of erecting a new

museum to replace the present structure, and added that his dream was for an even larger one. He spoke of the demographic change taking place, and the projection that, by 2008, 45% of the work force would have been hired since 2000. This represents a population that has come to maturity in the “cyber” world, not just comfortable with computers but impatient with security restrictions that inhibit their “normal” use of Palm Pilots, cell phones, etc. (He recalled commenting to late arrivals at a meeting and being told that there were too few wall clocks. “Don’t you have wrist watches?” he asked. The response was, no—if they wanted to know the time back home they used their cell phones.)

He described the new Director, Gen. Alexander, as a man who “knows us well,” and who, because of his background, arrived as a big supporter, wasting no time getting into action. The traditional “two sides” of cryptology need each other more than ever, constituting both offensive and defensive capabilities. New organizational arrangements had been successfully tested, placing these side by side, with results even better than anticipated. Notwithstanding the intricacies of separate and different funding arrangements and constituencies “downtown,” the “new look” was paying great dividends. It was clearly not the Agency most of the audience had left behind. But, he stressed, it was the Agency they had built that provided the basis for this transformation.

Recalling past decades, Mr. Black commented that it would have been unthinkable that the time might come when NSA/CSS would become the cyber space component command of one of the Unified and Specified Com-



*Meeting attendees peruse the goodie table.*

mands, namely STRATCOM.

With the establishment of the post of Director of National Intelligence, every day had brought adjustments both inside and outside, but these had and were being taken in stride. Respect for the Agency and its services – evidence of dependency – had never been so great. “You’d be proud!” he proclaimed. In his view, NSA had emerged as the intelligence agency

that understands what’s going on, whose views are sought out.

He also spoke of the dispersal or decentralization of Agency operations in regional centers in Georgia, Hawaii, Texas, and Colorado, as well as Fort Meade, each location capable of self-sustaining operations, each offering a career locale for an employee.

Questions from the floor were then solicited, adding to the value of Mr. Black’s appearance.



*Gen. Morrison presents token of appreciation to Harry Rosebluh.*

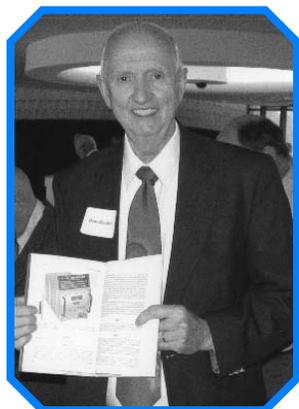
Thanking Mr. Black for the enthusiastic and positive message, Gen. Morrison called upon **Harry Rosenbluh**, editor of the NSA “alumni” publication, *The Phoenician*, flagship of the Phoenix Society, to receive from the Foundation a desk clock as a token of appreciation for his promotion of the objectives and activities of the NCMF and

## SEVENTH ANNUAL GENERAL MEMBERSHIP MEETING - CONT.

the Museum in his capacity. The General then presented **David W. Gaddy**, a member of the Board of Directors and editor of *The Link*, with a massive bronze eagle (“the general’s favorite bird”) in commendation for his service over the past decade.

While awaiting the arrival of the keynote speaker, Gen. Morrison introduced NCMF officer **John Garcia** to provide an overview of the new book, *A Brief History of Cryptology*, by NCMF member and former committee chairman **James V. Boone**. (See *The Link*, Summer 2005.) Highly laudatory of the effort, Mr. Garcia noted that royalties from the sale of the book were being donated to the NCMF, for which he again expressed our thanks.

The keynote speaker, **Lt. Gen James Clapper, USAF (Ret.)**, Director of the National Geospatial Intelligence Agency, was introduced by Gen. Morrison. A former Director of the Defense Intelligence Agency, instrumental



*Dapper young man*

in establishing the Defense HUMINT Service, “Jim” Clapper came from a shared father-son relationship with roots in SIGINT. His operational experience involved assignments in Viet Nam and as J2 US Forces Korea. The National Geospatial Intelligence Agency resulted from the merger of the Defense Mapping Agency (itself a merger of the former Army Map Service with similar organizations) and the once highly secret National Photographic Interpretation Center (NPIC, where imagery from the U2, SR-71 and satellite programs were processed). As he had in previous assignments, Gen. Clapper drew from his experience to shape his approach to new challenges. One of those challenges was the transition from Cold War thinking to a paradigm stemming from “9/11,” a transformation that has affected most segments



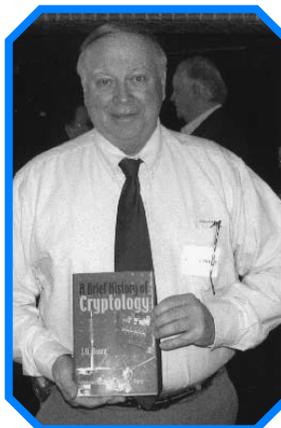
*Gen. Morrison gives Mr. David Gaddy the bird :-)*

of the Intelligence Community.

Although reliance on teamwork, fusion, automation, regional decentralization and other principles familiar to SIGINTers guided his thinking, he found an unfamiliar environment dealing with natural disasters—hurricanes, earthquakes, disaster support—demanding his products and attention. At the same time, emerging commercial sources for imagery—

most recently the MS GoogleEarth (free) source, geared to serve citizens directly—had created sensitivity among nations and commercial interests to such “targets of interest” as refineries, off-shore drilling, pipelines, not to mention

nuclear research facilities and installations considered to be subject to national security protection. Even avian flu had created demands for the agency’s product. This new “open sources” dimension, and how he had set about addressing it, based on his earlier experiences, captured the attention of the audience brought penetrating questions.



*Dapper young man*

Mr. **Bruce Campbell**, former Associate Director for Operational Support for FEMA—the Federal Emergency Management Agency—continued audience concentration on the post-Cold War, post-9/11 “new realities,” with the unfolding realization of Hurricane Katrina’s devastation of the Gulf Coast and New Orleans. Mr. Campbell noted wide-spread dissatisfaction with FEMA’s performance in the event, and contrasted the organization and procedures which had prevailed earlier, when he was involved. Walking a tight-rope between “second-guessing” and acknowledgment of shortcomings, his “insider’s perspective” was an unsettling, but realistic appraisal of the how natural disasters affect the economy and upset government priorities.

*Text continued on page 13*



## FOR THE BOOKSHELF



Thomas L. Burns, *The Quest for Cryptologic Centralization and the Establishment of NSA: 1940-1952*. (National Security Agency, Center for Cryptologic History, Series V, “The Early Postwar History,” Volume VI, of *United States Cryptologic History*, 2005.)

This 129-page (double-column) indexed and illustrated publication is an unclassified version of the author’s “*The Origins of NSA*,” a classified monograph of 1990 that first carried the imprint of the Center for Cryptologic History. Unlike most declassified releases, filled with gaps and mark-outs, this edition is attractive in appearance, smooth and easily read, although it is tightly packed with “meat” for long and serious deliberation. For students of the post-World War II U.S. efforts at what was termed “unification” of its armed forces, it provides an account of a parallel effort on a smaller scale, seldom presented or readily grasped as it is here, that was influenced by that effort at unification and, in turn, served as a test-bed for the trials and tribulations that took place on a larger scale. For the professional cryptologist, and for the veteran of the period described, it is a souvenir and an explanation of how and why things were done as they were, leading up to the establishment of NSA by President Truman in 1952. In the Foreword to the 1990 edition, the late Henry F. “Hank” Schorreck, then NSA Historian, wrote: “Mr. Burns has identified most of the major themes which have contributed to the development of the institutions which characterize our profession: the struggle between centralized and decentralized control of SIGINT, interservice and interagency rivalries, budget problems, tactical versus national strategic requirements, the difficulties of mechanization of processes, and the rise of a strong bureaucracy. These factors, which we recognize as still powerful and in large measure still shaping operational and institutional development, are the same ones that brought about the birth of NSA.”

Himself a veteran of WW II (US Army) cryptology, Tom Burns progressed through what are

euphemistically termed “various levels of staff and managerial experience,” both military and civilian, culminating in his assignment to the Director’s staff element, from which he retired in 1981. He was therefore a part of, and an observer of, the period. Having honed his writing and editing skills on “the top floor,” he returned to NSA as a “re-employed annuitant,” eager to tackle the subject on which he spent the next decade. He brought that project, nearing completion, into the history staff and the Center, and with it a wealth of wisdom.

His book is introduced with a short essay titled “The Struggle to Control a Unique Resource,” which is his thesis. The book is divided into seven chapters, tracing from pre-war and wartime Army-Navy cryptologic relations, through adjustments and experiments of the post-war years, and the emergence of interested civilian parties, especially the State Department and the embryonic DCI/CIA. The FBI “opted out” rather early (a harbinger of modern times). The creation of the Armed Forces Security Agency in 1949 served to flush out weaknesses in theory and practice, which came into focus during the Korean War. Truman’s determination to provide a remedy led to the creation of the Brownell Committee, Truman’s endorsement of its recommendations, and the establishment of the National Security Agency to replace three year-old AFSA.

While the salient features of the monograph have generally emerged over the years, Tom Burns “connects the dots” as only an insider can, and in that sense alone, it should prove useful to researchers and historians lacking that special insight. Doubtless possessed of impressions of the prime movers, Burns refrains from judgments on their motivation, personal abilities or influences beyond his ken or the paper record. His selection of illustrations will be of interest, both to recall or to reveal rare photographs. As one example of what he ferreted out in his research, this reviewer was surprised to note that, while Gen. Ralph

*Continued on page 9*

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## FOR THE BOOKSHELF

*Continued from page 8*

Canine—NSA's first Director—did not, in truth, emerge from the WW II COMINT arena, he was much more knowledgeable about the players and the problems than has generally been recognized, having served postwar assignments in a secondary role on key committees involving those personalities and challenges. To that knowledge and experience he brought those qualities of leadership, organizational ability and determination honed in the European theater of war, qualities that are more often cited among the strengths he brought to the formative directorship.

And the price of this little gem? Gratis. "Your tax dollars at work." You'll want a copy:

**National Security Agency  
Center for Cryptologic History  
Suite 6886 ATTN: Mr. Carleen  
9800 Savage Road  
Fort George G, Meade, MD 20755-5000** ■

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## NOTED IN PASSING

Retired NSA senior official **Frank C. Austin** of Orlando, Florida passed away 20 October 2005. Mr. Austin was a US Army veteran of WWII and recipient of the Legion of Merit. A distinguished Commandant of the National Cryptologic School and sometime chief of "B" Group in the Production (Operations) organization, among other assignments, his final post at retirement was as NSA Inspector General. Interment was set for Arlington National Cemetery.

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## SEVENTH ANNUAL GENERAL MEMBERSHIP MEETING

*Continued from page 7*

Mr. **Bill Kvetkas, Jr.**, Treasurer-Emeritus of the Foundation then provided an up-date on the newly established Faurer Task Group, set up by the Foundation and led by Board member (and former NSA Director) Lt. Gen. "**Linc**" **Faurer**, USAF (ret.) Gen. Faurer's group will concentrate on the primary Foundation goal of building a new home for the National Cryptologic Museum, which will then be gifted to NSA to replace the former motel structure now housing it. Foundation Vice President **Gene Becker** followed with a review of the Foundation's accomplishments over the past year.



*A distinguished couple who are obviously married...for a really long time*

After a break for a buffet lunch—and another opportunity to view lobby displays arranged for the occasion—the meeting resumed with a report from the Curator of the NCM, Mr. **Patrick Weadon**. Thanking the Foundation for its support, he noted new exhibits and displays and provided statistics on visits and other uses made of the facility over the past year.

Chairman of the Foundation's Acquisition Committee, **Dave D'Auria**, gave a report of a very busy year of collecting and donating to the Museum.

With platform displays of special items, such as drafts of The Codebreakers, an "Inside Glimpse of an Author's Collection and Sources" highlighted the work of Foundation Board member, Dr. **David Kahn**. Ending with an update on "aka SMART," the computer-math program for elementary school students, sponsored by the Foundation, presented by project manager **Morie Cove**, the day's session adjourned. Hope to see you next fall!

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## NAVAL SECURITY GROUP ALIGNS WITH NETWARCOM

*(Because of the historic significance of the action, the following lightly edited account is based upon that of Chief Journalist (SW/AW) Joseph Gunder, Naval Network Warfare Command Public Affairs, officially disseminated 5 October 2005. –Ed.)*



NORFOLK, Va. (NNS) -- The Navy has integrated all of its Information Operations (IO) capabilities under one authority by formally disestablishing Naval Security Group Command (NAVSECGRU) and aligning its personnel and assets under Naval Network Warfare Command (NETWARCOM).

### **What was formerly NAVSECGRU has now become NETWARCOM's Information Operations Directorate.**

The alignment officially took place Sept. 30, 2005 and allows for greater opportunities and relevance in the information domain while preserving the Navy's support to the national intelligence mission.

Based at Naval Amphibious Base Little Creek, Va., NETWARCOM is the Navy's type commander for IO, Networks and Space. Through the alignment, NETWARCOM will now be able to provide an integrated and responsive team of IO and network professionals to deliver information-age solutions for the fleet and joint commander in the maritime domain.

A ceremony recognizing the disestablishment of NAVSECGRU was held at its headquarters Sept. 30 at Fort George G. Meade, Md. During the ceremony, NAVSECGRU's final commander, **Rear Adm. Andrew Singer**, spoke about the transition the command has made during his tenure.

"This is a historic day to reflect what we have achieved and what we will achieve, looking forward to the future after seven decades of war, crisis and peace seen by Naval Security Group."

"Since cryptology stood up in 1924 it was tied to communications," remarked guest speaker **Adm. John Nathman**, commander, U.S. Fleet Forces Command, referring to its relationship with radio signals. "Now, communications is tied to the net, and integration can only be achieved by realignment."

The consolidation involves Singer's headquarters staff, and subordinate Naval Security Group Activities (NSGA) and detachments (NSGD). When fully completed, the action will combine the Navy's enlisted Cryptologic Technicians and Information Warfare officers into the same organization as the Navy's Information Systems Technicians and Information Professional officers.

The IO warfare area is composed of five core integrated capabilities: Electronic Warfare, Computer Network Operations, Psychological Operations, Military Deception and Operational Security. These combine with related capabilities to provide "Information Dominance," the concept of controlling an adversary's use of the information and communications environment while protecting one's own.

The relationship between the two commands is not new. Since NETWARCOM's inception in 2002, the NAVSECGRU commander has served on the NETWARCOM staff in an "additional duty" capacity. Under the new construct, the combined warfighting and intelligence authorities of the two organizations, derived from titles 10 and 50 of the U.S. Code, will reside under one command, resulting in a more streamlined capability.

**Rear Adm. Edward H. Deets III**, NETWARCOM's vice commander, will assume the duties as the Naval Service Cryptologic Element from NAVSECGRU, making him **the principal cryptologic authority responsible for naval participation in the National Intelligence Program.**

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## WILLIAMS RETURNS TO HEAD HISTORY CENTER

“It really gives you a relationship that didn’t exist in the Navy before,” said **Capt. William Leigh-er**, special assistant for Information Operations at NETWARCOM. “They were separate chains of command.”

“There is a natural linkage between the cryptologic mission areas of protecting friendly information and exploiting that of adversaries,” Leigh-er continued, “and the IO mission to leverage that information to shape the battle environment for a decisive combat advantage. As part of the realignment, NAVSECGRU’s subordinate commands and detachments worldwide will be renamed either Navy Information Operations Commands (NIOC), or the smaller Navy Information Operations Detachments (NIOD). NSGA Norfolk will be the one exception - it will consolidate with NETWARCOM’s Fleet Information Warfare Command (FIWC), also in Norfolk, which will be renamed NIOC Norfolk in early November.

“The first of the new commands stood up July 27 as NIOC San Diego, taking on the consolidated missions, functions and tasks of the concurrently disestablished FIWC Detachment, San Diego and NSGA San Diego.

“There are huge challenges attendant to the alignment of NAVSECGRU and NETWARCOM,” explained Leigh-er. “We are making a fundamental change in how we do business across all signals intelligence, IO and network areas. Coherently linking all of the mission sets now under the NETWARCOM umbrella is an undertaking of enormous magnitude, spanning all fleet areas and impacting all naval warfare disciplines. We are confident that we will meet those challenges and deliver the best product possible to our Navy, joint and national commanders, partners and customers.”

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It seems only a short time ago that we hailed the arrival of **Col. William J. Williams**, USAF, as the new (and fourth) chief of NSA’s Center for Cryptologic History (CCH). (See *The Link*, Vol. 5, No. 3, Fall 2002.) Possessed of a doctorate in history, with a master’s in library science, he brought exceptional credentials, both academic and service, to NSA. For seven years, he had been professor of history at the U.S. Air Force Academy (Colorado Springs). He had served in intelligence and command assignments both in the field and at the Pentagon. As his three-year tour at the Agency neared an end, Williams decided to retire from the Air Force, and we bade farewell to the colonel, thanking him for his close relationship to the Foundation and its objectives. Now a new chapter in his “bio” has begun.

Dr. William J. Williams—“Bill”—has returned as a civilian to his former desk, heading the CCH. We welcome him in that capacity and look forward to his leadership, influence and personal involvement.

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