

Highlights from the NCMF 21st General Membership Meeting & Annual Symposium

Wednesday, 16 October 2019
JHU/APL Kossiakoff Center

NCMF Update

Mr. Richard C. Schaeffer, Jr., NCMF President and Chairman of the Board

Mr. Schaeffer opened the meeting with a short explanation of the recent restructuring of the NCMF. Under the new construct Mr. Schaeffer serves as President and Chairman of the board; Ms. Laura Nelson is the CEO. He reported that “things for the new museum are lining up”. NCMF’s partnership with NSA is stronger than ever earning active support from both General Nakasone and George Barnes. They are working hard to assure that the Congressional appropriation will support the fit-up of the new NCM/CCEI building. Mr. Schaeffer also credited the I&L organization for their cooperation and support. In addition Mark Loepker, leading the CCEI education program, has developed a strong partnership with the National Cryptologic School. In summary, Mr. Schaeffer stated that everyone is leaning forward to reach the goal, hoping that within the next 12-18 months the new building will be visible.

In recognition of those “pioneers” of the cryptologic mission Mr. Schaeffer noted the passing this past year of Dick Bernard, a NCMF plank holder; Don Borrman, one of the first Directors of the NCMF; and Benson Buffham, NSA’s first Inspector General who followed Lou Tordella as Deputy Director.

Among the highlights of this past year Mr. Schaeffer acknowledged the great work of John Garcia who represents the NCMF at many events and actively engages with industry partners. Once again the Crypto Cup was successful now having raised over \$650K since its inception. There are 800 active members of the NCMF, about 200 inactive members. The quarterly program series continues to be well attended (two sell-outs this year!) with the December program to be announced soon. As examples of the NCMF’s support to the NCM, Mr. Schaeffer cited Dave D’Auria’s successful scavenging for artifacts and NCMF 3participation in Armed Forces Day. Mr. Schaeffer takes great pride in attending the ceremonies for the high school recipients of the Eugene Becker Award for Excellence in Cybersecurity and Cryptology and the General John E. Morrison Award in Excellence and Innovation. Finally Mr. Schaeffer credited Cindi Saadi for her excellent work managing the foundation’s website and social media.

National Cryptologic Museum Update

Mr. Patrick Weadon, Curator

Mr. Weadon opened his presentation relating that the mission is all about providing critical information to policymakers so they can make wise decisions. In the same way our adversaries are trying to acquire our critical information. And so, he told the story of the Great Seal which was presented to Ambassador Harriman by a group of Russian school children in 1945. After hanging in the ambassador's study for seven years, it was found to be bugged and had been successfully providing critical information to the Russians. The Russians were clever in their use of Theremin wave technology. The US did not reveal its discovery of the bugged Great Seal until after the shoot-down of the U-2 piloted by Gary Powers in 1960 when the US used it as an example of Russian espionage to counter the condemnation of the US "spy plane."

Mr. Weadon shared the museum's excellent reputation as evidenced by its rating as #16 of 240 attractions in the Baltimore area and being scored at 4.5 by Trip Advisor. Upcoming events include the highly popular STEM night on 17 October. Currently there is a special exhibit honoring the 100th anniversary of GCHQ. And by next summer, there will be a new exhibit featuring the Rosetta Stone. In conclusion Mr. Weadon recognized the many volunteers upon whom the museum depends.

Keynote Speech: "Russian and Chinese Information Warfare"

Dr. John Lenczowski, Founder and President of the Institute of World Politics; former Director of European and Soviet Affairs for the National Security Council

Dr. Lenczowski opened his discussion with a profound thank you to all NSA-ers for their service to the nation recognizing the uniquely valuable information provided by NSA to policymakers.

Throughout his discussion Dr. Lenczowski noted the importance of "active measures" (the use of disinformation, forgeries, propaganda, psychological operations, etc.) used by the Russians and the Chinese. In particular the Russians view Information Operations' victories as more important than those obtained through classical conflict: "active measures are the heart and soul of the KGB." Both during the Cold War and today under President Putin active measures have been used extensively. China too has engaged in strategic deception for many years. They conduct massive propaganda operations. Among the subjects considered taboo for journalists in China are human rights violations.

"Russia's Internet Research Agency Thanks You for Your Support"

Dr. Terry Thompson, former NCR Defense and NSA Assistant Director for Support Services

Dr. Thompson gained the audience's attention with his novel presentation. A demo of Facebook followed by his portrayal of Russian entities, using a Russian accent, who discuss the possibility of a campaign to affect the 2020 US elections as had been conducted in 2016. Among the points delivered were that Russian military believe that the use of information, that is, non-military measures, is a weapon of modern warfare and today the training of Russian youth in the use of social media as an influence tool is important. The result of a propaganda campaign is to **D**ismiss critics, **D**istort facts, **D**istract from the issue and **D**ismay the audience. The Russian entities recognized the many defensive actions being undertaken in Europe and those in the US by DHS, DISA and US Cyber Command in preparation for the 2020 election. Those actions pose a potential thwart to another disinformation campaign by them.

NCMF/CCEI New Museum Update

Ms. Laura Nelson, CEO and President; and Mr. Larry Castro, New Museum Project Manager

During lunch Ms. Nelson presented renderings of the new museum and the CCEI facility. She also reviewed the status of fundraising efforts and gave recognition to the Founders. Ms. Nelson explained the decision by NSA and the NCMF to use a phased approach for construction thus allowing groundbreaking in the nearer term. Ms. Nelson also introduced Christine Harding, the new Director of Communications & Marketing for the NMP.

Mr. Castro followed providing more detailed specifications of the new building concluding that as of today, "we are shovel-ready" (i.e. all permits, requirements, etc. have been met.)

Ms. Nelson enthusiastically discussed current ideas being pursued in support of cybersecurity education (providing a virtual safe place for K-12-ers) and innovation (providing a venue for bringing mission problems to entrepreneurs.)

In conclusion Ms. Nelson outlined several fund-raising initiatives including a mass mailing campaign and the commemorative paver and brick program. She asked that volunteers willing to support these initiatives contact Carol Stromberg

Panel Discussion: "The Spy in Moscow Station"

Dr. Eric Haseltine, former Director of Research at NSA, Mr. Charles Gandy, NSA Cryptologic Legend supported by Dr. Chris Gilbert and Mr. Chuck Gandy

Dr. Chris Gilbert led a panel discussion of Dr. Haseltine's recently published book "The Spy in Moscow Station" which relates the story of the discovery of Soviet technical penetrations of the American embassy in Moscow led by Mr. Gandy. Over the course of the questions and answers, Mr. Gandy related many of the obstacles he encountered while trying to conduct this quest. And Dr. Haseltine related his reason for telling the story and the process undertaken to obtain permission to publish. Of prominence in this story is the revelation that the Russians are very good at this game and thus the US must be vigilant at all times.

“Project GUNMAN: The Investigation that Reshaped the Field of Counterintelligence”

Mr. Jerry Roddy, Former NSA Senior Technical Leader

Mr. Roddy provided many technical details of Project GUNMAN, the discovery in 1984 of the Soviet bugging of IBM typewriters used in the US Embassy in Moscow. He discussed in detail the variants of the bugs and how each worked. The team which was deployed to Moscow was under a strict time constraint to discover the bugs, a story of a junior technician’s surprising “find” in the final days on site. Most importantly Mr. Roddy shared how the typewriters were replaced while not revealing to the Soviets their “uncovering.”

“Clandestine Information Technology & Vulnerability Assessments”

Mr. James Gosler, former Director of CIA’s Clandestine Information Technology Office and Senior Fellow at JHU/APL

Mr. Gosler shared his experience among many different boards and study groups which outlined the threat posed in cyberspace. As early as 1970 Willis Ware led Defense Science Board (DSB) which examined computer network vulnerabilities. Decades later, in 2011 another DSB published its findings on Resilient Military Systems and the Advanced Cyber Threat. In 2014 a study for the Chief of Naval Operations published “A Review of Navy Cyber Defense Capabilities” and in 2017 “Cyber as a Strategic Capability” published five findings. The common characteristic of a sophisticated offensive cyber operation is that the operations are “tiered” ranging from penetrations by a hacker to that of the advanced persistent threat (APT.) It is also observed that computer network defense needs to be full spectrum, i.e. protection needs to be in place outside the network itself. Risk management is a function of threat, vulnerabilities and consequences and thus required measures to destroy the threat, reduce vulnerabilities and reduce the impact of systemic consequences. In conclusion, a more proactive and systematic approach to mission assurance is urgently needed.