

2022

CRYPTOLOGIC HISTORY SYMPOSIUM

ICONS & INNOVATION

Co-sponsored by the Center for Cryptologic History and the National Cryptologic Foundation

*All sessions will be held virtually via Microsoft Teams. Registered attendees will receive a link to enter each session.
All times are Eastern Daylight Time (EDT).*

Wednesday, May 11, 2022

SESSION 1

8:30 AM – 9:15 AM

Welcome

Mr. John A. Tokar, Chief, Center for Cryptologic History

Keynote Address

Admiral Bobby Ray Inman, USN (ret.), former DIRNSA

SESSION 2

9:30 AM – 11:00 AM

SESSION 2A

Cyber Conflict & Competition

What we have learned about networks and data as strategic risk and reward

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|-------------------|--|
| Dr. Aaron Brantly | The State+: The Condoning of Substate Activities for National Gain |
| Dr. Eric Novotny | The Ayatollah’s Kill Switch: Monitoring and Measuring Internet Shutdowns and Political Turmoil |
| Dr. Thomas Rid | On Digital Counterintelligence |
| Mr. JD Work | Cryptanalytic Enabling Operations against Cyber Targets by Nonstate Actors |

Chair and Discussant: Dr. Emily Goldman

SESSION 2B

Topics in UK Cryptology

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| Dr. Chris Christensen | Bletchley Park’s Work on JN-25 |
| Dr. David Abrutat | Secret Messengers: How Bletchley Park’s Product was Disseminated during the Second World War |
| Dr. David Kenyon | “A Divine Union Between Us and the People of Other Nations?” Exploring Racial Diversity in British SIGINT in South Asia, 1935-1945 |

SESSION 3

11:15 A.M. – 12:00 P.M.

Dr. David Hatch
& Mr. Wade Forbes

The Making of “CryptoComics”

Moderator: Mr. John Tokar

SESSION 4

12:15 P.M. – 12:45 P.M.

Ms. Erica Richards

The Making of “The Last Elephant Cage”

SESSION 5

1:00 P.M. – 2:30 P.M.

Cryptology in France: Strengths and Weaknesses

Mr. Philippe Guillot

Ms. Agathe Couderc

General Jean-Louis Desvignes

Professor Jean-Jacques Quisquater

Chair: General Jean-Louis Desvignes

SESSION 6

2:45 PM – 4:15 PM

SESSION 6A

Long-standing Ciphers, New Cryptanalysis

Dr. Richard Bean &

Breaking Historical Ciphers from the Biafran War

Dr. George Lasry

Mr. Bob Bogart

Charles Hafer’s Enciphered Diaries

Dr. George Lasry

Deciphering Papal Ciphers from the 16th, 17th, and 18th Centuries

SESSION 6B

World War II Tactical SIGINT

Major Spencer French

Not Just LUCKY: How Patton’s Third Army Adapted to Generate Operational Level Information Advantage from March-August 1944

Dr. David Hatch

Tactical Naval SIGINT in the Battle for Iwo Jima

Dr. Samuele F. S. Pardini

Reading Literature, Deciphering History: How a Jewish-American Literary Critic Made Sense of WWII and Helped Win It

SESSION 6C

Collecting SIGINT

Mr. Gabe Marshall

Early Remote SIGINT Collection: A Foretaste of Today’s Mission Operations

Mr. Mark Borgerson

USS SPHINX: The Last Special Projects Ship

Mr. Darnell Washington

The Sub Detection System you Probably Didn’t Hear About

2022

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Thursday, May 12, 2022

SESSION 7

8:00 AM – 9:30 AM

SESSION 7A

Looking Back at the Secure Data Network System (SDNS)

Mr. Roger Callahan	Framing the Context for the SDNS Program
Dr. Stephen Kent	NSA's SDNS Program: Its Impact on Internet Security Standards (and vice versa)
Mr. Russ Housley	SDNS Influence on Email Security Standards
Mr. Alex Sharpe	The SDNS - The Value is Still Being Experienced today, including the Cloud.

Chair: Mr. Tony Rutkowski

SESSION 7B

Cryptology and Prisoners of War

Mr. Peter Bedini	The MIS-X Code Section: Supporting Escape and Evasion in WW2
Mr. Gregory Nedved	Chinese POWs in Korea and Understanding Chinese Cryptology

SESSION 7C

Cryptology's Intersection with Diplomacy

Mr. Frode Weierud & Dr. Sandy Zabell	Cryptology in the German Foreign Office, 1919-1954
Ms. Jennifer Rigdon Teter	British Imperial Censorship at Bermuda and the Interception of American Transatlantic Mail during World War II
Mr. John F. Dooley	Benjamin Brigman and Telegram 48

SESSION 8

9:45 AM – 11:15 AM

SESSION 8A

Pre-Modern Cryptology

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| Dr. Gerhard Strasser | Diametrically Opposed Innovations: “Mute communication” for Closed and Open Interaction in the 16th and 17th Centuries |
| Mr. Geoff Lee | Caesar’s Hidden Writing is Not a Cipher |

SESSION 8B

Icons of Technology

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| Dr. Olga Topol &
Sir Dermot Turing | Poland’s WW2 Cipher Machine: Icons and Legends |
| Dr. Nicolas T. Courtois | On the Peculiar Choice of Rotors in Enigma and other Historical Cipher Machines |

SESSION 8C

Explorations of Cryptologic Theories

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| Dr. Roger Stritmatter | Witty Numbers: Counting the Feet in Ben Jonson’s First Folio Cryptogram |
| Ms. Elonka Dunin
& Mr. Klaus Schmeh | Robert Thouless’s Paranormal Crypto Experiments |
| Mr. Austin Lubetkin | Rediscovering Coded Cyphers as Effective Methods for Digitally Interpreting Brainwaves |

SESSION 9

11:45 AM – 12:15 PM

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| Dr. Vince Houghton &
Mr. Robert Simpson | Update on the National Cryptologic Museum and Library |
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SESSION 10

12:30 P.M. – 1:05 P.M.

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| Dr. Paul Nahay | The Parkway Chorale |
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SESSION 11

1:15 PM – 2:45 PM

SESSION 11A

A Trio of Technical Challenges and Innovative Solutions

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|--------------------|--|
| Mr. Steven Loleski | Hard Targets: Revisiting Technology, Cryptography, and Cold War” Rules of the Game” |
| Dr. Ivo Juurvee | The Largest British SIGINT Liaison of the Interwar Years: Estonian Radio Intelligence against the Soviet Union |
| Mr. Klaus Schmeh | The Codes and Ciphers of the Red Army Faction |

SESSION 11B

Going Online with KEPLER

Operational tests of Kepler Lab’s advanced workstation design, transcription and analysis aids, and human-computer interface innovations set benchmarks for future intelligence systems progress and acquisitions.

Mr. Howard Thorpe

Mr. Glenn Nordin

Dr. Steven H. Barry

SESSION 11C

Women in Intelligence: British, Canadian, and American Perspectives

Dr. John Ferris Marie-Rose Egan, British Royal SIGINT from 1935-1948

Dr. Isabel Campbell WRCNS to the Rescue: How the Women’s Royal Canadian Naval Service Contributed to Canadian and Allied Intelligence Functions during the Early Cold War

Dr. David Sherman Spies in the Family: A Father, A Daughter, and Two American Wars

SESSION 12

3:15 PM – 5:00 PM

Concluding Remarks Mr. John A. Tokar, Chief, CCH

Cryptologic Icons: Some Old, Some New

Ms. Brenda McIntire “Give to Ferner”

Mr. Anthony Denzer Personal Recollections of Brigadier John H. Tiltman

Dr. Nicholas E. Reynolds Wall Street to the Rescue: Alfred T. McCormack, Amateur – and Expert – MAGICian

Ms. Amy Butler Greenfield Elizebeth Smith Friedman, Abwehr Enigma, and Allied Codebreaking Cooperation, 1942-1944

Mrs. Betsy Rohaly Smoot The Case for Parker Hitt as the Father of American Military Cryptology

**A final program will be available to attendees during the Symposium. Unless speakers say otherwise, they are speaking under a policy of non-attribution and should not be quoted or cited without their permission. Presentations are the views of the speakers alone, and do not represent those of the US Government or the National Security Agency. Speakers and their presentations are not endorsed by the US Government or the National Security Agency.*