

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: Dr. Michael Warner, 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
& Mr. Dave King

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 & Dr. George Lasry	Breaking Historical Ciphers from the Biafran War
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

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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

Mr. Alex Sharpe

Mr. Russ Housley

Dr. Stephen Kent

NSA's Secure Data Network System Program (SDNS): Its Impact on Internet Security Standards (and vice versa)

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 &

Cryptology in the German Foreign Office, 1919-1954

Dr. Sandy Zabell

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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| Ms. Jan Slimming | How I Met Colossus! Codebreaking and Computers |
| 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

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.*