

2022

# CRYPTOLOGIC HISTORY SYMPOSIUM

ICONS & INNOVATION

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

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Wednesday, May 11, 2022

 [SKETCHNOTED!](#)

## SESSION 1

8:30 A.M. – 9:15 A.M. EDT

Welcome

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

[Keynote Address](#)

[Admiral Bobby Ray Inman, USN \(ret.\), former DIRNSA](#) ● Recorded

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## SESSION 2

9:30 A.M. – 11:00 A.M. EDT

### SESSION 2A

#### Cyber Conflict & Competition

Moderator: Evan Rea

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

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

Moderator: John A. Tokar

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. EDT**

Dr. David Hatch  
& Mr. Wade Forbes

[The Making of “CryptoComics”](#)

● Recorded

Moderator: John A. Tokar

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**SESSION 4**

**12:15 P.M. – 12:45 P.M. EDT**

Ms. Erica Richards

**The Making of  
“The Last Elephant Cage”**

● Recorded

Moderator: Jessica Garrett-Harsch

**SESSION 5**

**1:00 P.M. – 2:30 P.M. EDT**

[Cryptology in France: Strengths & Weaknesses](#) ● Recorded

Moderator: Jessica Garrett-Harsch

Mr. Philippe Guillot  
Ms. Agathe Couderc  
General Jean-Louis Desvignes  
Professor Jean-Jacques Quisquater  
*Chair: General Jean-Louis Desvignes*

**SESSION 6**

**2:45 P.M. – 4:15 P.M. EDT**

**SESSION 6A**  [SKETCHNOTED!](#)

**Long-standing Ciphers, New Cryptanalysis**

Moderator: Evan Rea

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 Signals Intelligence \(SIGINT\)](#) ● Recorded

Moderator: John A. Tokar

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 Signals Intelligence \(SIGINT\)](#) ● Recorded

Moderator: Jessica Garrett-Harsch

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



# CRYPTOLOGIC HISTORY SYMPOSIUM

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Thursday, May 12, 2022

**SESSION 7**

**8:00 A.M. – 9:30 A.M. EDT**

**SESSION 7A**

[Looking Back at the Secure Data Network System \(SDNS\)](#) ● Recorded Moderator: Evan Rea

- 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](#) ● Recorded Moderator: Jessica Garrett-Harsch

- 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** ✍️ [SKETCHNOTED!](#)

**Cryptology’s Intersection with Diplomacy** Moderator: John A. Tokar

- 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 A.M. – 11:15 A.M. EDT****SESSION 8A****Pre-Modern Cryptology**

Moderator: Jessica Garrett-Harsch

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**

Moderator: John A. Tokar

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**  [SKETCHNOTED!](#)**Explorations of Cryptologic Theories**

Moderator: Evan Rea

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 A.M. – 12:15 P.M. EDT**Dr. Vince Houghton &  
Mr. Robert Simpson**Update on the**[National Cryptologic Museum and Library](#) ● **Recorded**

Moderator: John A. Tokar

**SESSION 10****12:30 P.M. – 1:05 P.M. EDT**

Dr. Paul Nahay

**The Parkway Chorale**

Moderator: Jessica Garrett-Harsch

**SESSION 11****1:15 P.M. – 2:45 P.M. EDT****SESSION 11A****A Trio of Technical Challenges and Innovative Solutions**

Moderator: Evan Rea

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](#) ● Recorded

Moderator: John A. Tokar

*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. Glenn Nordin
- Mr. Howard Thorpe
- Dr. Steven H. Barry

**SESSION 11C**  [SKETCHNOTED!](#)

**Women in Intelligence: British, Canadian, and American Perspectives**

Moderator: Jessica Garrett-Harsch

- |                     |   |
|---------------------|---|
| 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  |

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**SESSION 12**

**3:15 P.M. – 5:00 P.M. EDT**

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

[Cryptologic Icons: Some Old, Some New](#) ● Recorded

Moderator: John A. Tokar

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|---------------------------|---|
| Ms. Brenda McIntire       | “Give to Ferner”  |
| Ms. Amy Butler Greenfield | Elizebeth Smith Friedman, Abwehr Enigma, and Allied Codebreaking Cooperation, 1942-1944 |
| 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         |
| Mrs. Betsy Rohaly Smoot   | The Case for Parker Hitt as the Father of American Military Cryptology                  |

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