Sessions in which all speakers agreed to being recorded are linked below.

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**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**

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<th>Session 1</th>
<th>8:30 A.M. – 9:15 A.M. EDT</th>
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<tr>
<td>Welcome</td>
<td>Mr. John A. Tokar, Chief, Center for Cryptologic History</td>
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<td>Keynote Address</td>
<td>Admiral Bobby Ray Inman, USN (ret.), former DIRNSA</td>
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**SESSION 2A**

**Cyber Conflict & Competition**

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

Moderator: Evan Rea

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*

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**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
Sessions in which all speakers agreed to being recorded are linked below.

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<tr>
<td><strong>SESSION 3</strong></td>
<td><strong>11:15 A.M. – 12:00 P.M. EDT</strong></td>
<td>The Making of “CryptoComics”</td>
<td>Dr. David Hatch &amp; Mr. Wade Forbes</td>
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<td><strong>SESSION 4</strong></td>
<td><strong>12:15 P.M. – 12:45 P.M. EDT</strong></td>
<td>The Making of “The Last Elephant Cage”</td>
<td>Ms. Erica Richards</td>
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<td><strong>SESSION 5</strong></td>
<td><strong>1:00 P.M. – 2:30 P.M. EDT</strong></td>
<td>Cryptology in France: Strengths &amp; Weaknesses</td>
<td>Mr. Philippe Guillot, Ms. Agathe Couderc, General Jean-Louis Desvignes, Professor Jean-Jacques Quisquater</td>
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<td><strong>SESSION 6</strong></td>
<td><strong>2:45 P.M. – 4:15 P.M. EDT</strong></td>
<td>Long-standing Ciphers, New Cryptanalysis</td>
<td>Dr. Richard Bean &amp; Mr. Bob Bogart, Dr. George Lasry</td>
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<td>Breaking Historical Ciphers from the Biafran War</td>
<td>Dr. Richard Bean</td>
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<td>Charles Hafer’s Enciphered Diaries</td>
<td>Mr. Bob Bogart</td>
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<td>Deciphering Papal Ciphers from the 16th, 17th, and 18th Centuries</td>
<td>Dr. George Lasry</td>
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<td><strong>World War II Tactical Signals Intelligence (SIGINT)</strong></td>
<td>Not Just LUCKY: How Patton’s Third Army Adapted to Generate Operational Level Information Advantage from March-August 1944</td>
<td>Major Spencer French</td>
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<td>Tactical Naval SIGINT in the Battle for Iwo Jima</td>
<td>Dr. David Hatch</td>
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<td>Reading Literature, Deciphering History: How a Jewish-American Literary Critic Made Sense of WWII and Helped Win It</td>
<td>Dr. Samuele F. S. Pardini</td>
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<td><strong>Collecting Signals Intelligence (SIGINT)</strong></td>
<td>Early Remote SIGINT Collection: A Foretaste of Today’s Mission Operations</td>
<td>Mr. Gabe Marshall</td>
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<td>USS SPHINX: The Last Special Projects Ship</td>
<td>Mr. Mark Borgerson</td>
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<td>The Sub Detection System you Probably Didn’t Hear About</td>
<td>Mr. Darnell Washington</td>
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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**  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
Sessions in which all speakers agreed to being recorded are linked below.

## Final Program

### 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  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
Sessions in which all speakers agreed to being recorded are linked below.

**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

**SESSION 12**  📽️ Sketchnoted!

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

**Cryptologic Icons: Some Old, Some New**  📽️ Recorded
Moderator: John A. Tokar
Ms. Brenda McIntire  “Give to Ferner”
Ms. Amy Butler Greenfield  Elizabeth 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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