

CNA's Morse Code: AI-Guided Access to Critical Safety and Security Information

CNA has developed **four artificial intelligence agents** to help governments across the nation extract relevant insights from state-of-the-art research and current government reports. We call the system **Morse Code**. The four agents cover:

- **Critical incident after-action reviews**
- **Election security**
- **Police use of body-worn cameras**
- **Criminal justice applications of AI**

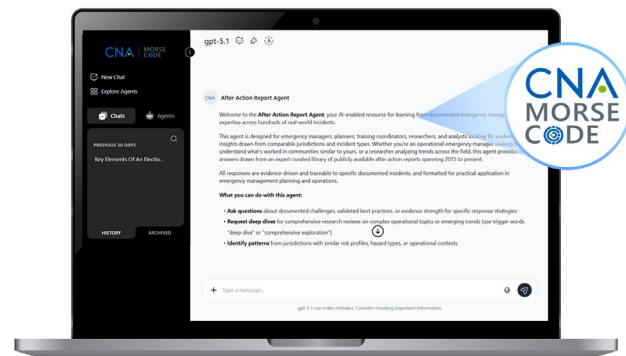
How does it work?

1. Morse Code draws on CNA-**curated libraries** of hundreds of research articles and government reports on each of the four topic areas when responding to user questions.
2. A **large language model** (LLM) AI "engine" provides both an interactive chat interface and file upload capabilities.
3. Extensive CNA-developed **agent instructions** govern how the system responds to user prompts, generating results grounded in vetted source materials and optimized for government users.

CNA also provides dedicated analyst support. Our analysts bring subject matter expertise in each of the four Morse Code agent topics, along with extensive experience in optimizing AI performance. They help users rapidly learn and effectively use the system.

What are the benefits?

- **Secure:** Morse Code's secure environment safeguards sensitive information. User queries and uploads remain on the secure portal and are not exposed to the broader internet or other Morse Code users.
- **Trustworthy:** Morse Code's responses to user questions are based on expert-curated document libraries, as opposed to general AI training data—the internet. This greatly reduces AI hallucinations and grounds responses in peer-reviewed research and authoritative government sources.
- **Traceable:** Morse Code provides citations to the individual documents and pages used in generating its responses. Users can download these documents or view them directly within Morse Code, allowing instant verification and enhanced understanding of responses.
- **Customizable:** Morse Code's secure file upload allows government agencies to confidently provide their own jurisdictional demographic information, policies, reports, and other data for Morse Code to use in tailoring its responses to their unique situations. CNA analysts can assist in adding large sets of documents.



What can it be used for?

Uses of the Morse Code agents are limited only by the user's imagination:



As local emergency management offices and others in public safety operations plan scenarios for exercising response capabilities, our **after-action review agent** can develop draft scenarios based on real-world incidents that jurisdictions with similar risk profiles have faced.



Police departments can upload their proposed body-worn camera plans and policies to our **body-worn camera agent** and request recommendations for additions and improvements. The agent will provide suggestions based on government documents and journal articles to help incorporate proven practices into department operations.



Local election offices can ask our **election security agent** for templates and starter contents to create new election security policies, plans, and training and communication materials based on government best practices and peer-reviewed research.



As police departments explore using AI for report writing, predictive analytics, or resource allocation, our **AI-in-policing agent** can provide evidence-based guidance on implementation strategies, risks, and best practices.

Is it secure?

Yes. Morse Code is hosted in an isolated, FedRAMP-aligned cloud environment and is engineered to meet the security and compliance expectations of US government agencies. User queries and document uploads are never exposed to the public internet, and the system does not train on user-entered information. Key security features include:

- **Conditional access:** Platform access is by invitation only, with role based access control and least privilege assignments.
- **Login restrictions:** Guest logins are restricted by IP address and geographic location.
- **Multi-factor authentication:** All users are required to use multi-factor authentication to log in.
- **Encryption:** Data is encrypted at rest and in transit.
- **Segregation:** User conversations, file uploads, and document libraries are isolated and containerized at the conversation level, so users cannot see each other's data.
- **Model protection:** The AI models are privately hosted and are not connected to public resources or the open internet. No training occurs on customer data at the conversation level.

About CNA

The CNA Corporation (CNA) is a not-for-profit analytical organization dedicated to the safety and security of the nation. With nearly 700 scientists, analysts, and professional staff across the world, CNA's mission is to provide data-driven, innovative solutions to our nation's toughest problems. It operates the Center for Naval Analyses—the Department of the Navy's federally funded research and development center (FFRDC)—as well as the Institute for Public Research. The Center for Naval Analyses provides objective analytics to inform decision-making by military leaders and ultimately improve the lethality and effectiveness of the joint force. The Institute for Public Research leverages data analytics and innovative methods to support federal, state, and local government officials as they work to advance national and homeland security.

To learn more about CNA's Morse Code, contact David Kaufman, Vice President for Safety and Security, at kaufmand@cna.org.

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