

Title: Cybersecurity 101: Threats, Vulnerabilities, and Hands Exercises

Abstract:

This session will review the basics of cybersecurity by discussing common threats and vulnerabilities from Russian botnets to common malware. The session will include a hands on component that uses web-based and common PC tools to explore threat sources and basic cybersecurity situational awareness techniques.

BIO:

Isaac Porche is a senior engineer at the RAND Corporation and program director for the Homeland Security Operational Analysis Center (HSOAC). His areas of expertise include acquisition, homeland security, cybersecurity network and communication technology, intelligence, surveillance, and reconnaissance (ISR); information assurance, big data, and cloud computing. He has led research projects for the U.S. Navy, U.S. Army, the Department of Homeland Security (DHS), the Joint Staff, and the Office of the Secretary of Defense. He is a member of the U.S. Army Science Board, serving on the data-to-decisions panel and the tactical cyber panel. He has assessed collaboration and information-sharing issues, and modeling and simulation of tactical network communication technologies. For the Navy, he studies ISR issues and led the TCPED study as well as the AoA for the DCGS-N and MTC2 programs of record. He has published articles in the Military Operations Research on "The Impact of Networking on Warfighter Effectiveness" (2007) and "Game-Theoretic Methods for Analysis of Tactical Decision-Making Using Agent-Based Combat Simulations" (2009). His RAND publications include The Impact of Network Performance on Warfighter Effectiveness (with Bradley Wilson, 2006); Navy Network Dependability: Models, Metrics, and Tools (Porche et al., 2010); and Finding Services for an Open Architecture: A Review of Existing Applications and Programs in PEO C4I (Porche et al., 2011). Porche has served as a consultant for Automotive News. He received his Ph.D. in electrical engineering and computer science from the University of Michigan.