William A. Waugaman, Ph.D.

Lieutenant Colonel (ret), USAF Electrical Engineer, Critical Infrastructure Systems Sandia National Laboratories, NM

Dr. Bill Waugaman is currently a Professional Member of Technical Staff, Critical Infrastructure Systems, Sandia National Laboratories, NM. He applies his electrical and power engineering skills to cyber security of critical infrastructure for national security. His current research areas include smart grid and industrial control system (ICS) cyber security, ICS intrusion detection, cyber deterrence, autonomous unmanned aerial vehicles, and bioengineering. Currently he is detailed to NORAD and US Northern Command (N&NC) as a technical adviser. Also, he is the laboratory technical director for the More Situational Awareness for Industrial Control Systems (MOSAICS) Joint Capability Technology Demonstration (JCTD). Previously, he led N&NC's energy security working group and was the co-operational manager of the Smart Power Infrastructure Demonstration for Energy Reliability and Security JCTD. His responsibilities included science and technology advisor, homeland defense issues, cyber security of ICS and weapon systems,



energy infrastructure awareness during exercises and real world events, and interagency coordination. Prior to this position, he was the Deputy Head of the Department of Electrical and Computer Engineering, Dean of the Faculty, United States Air Force Academy, Colorado.

A native of Detroit, Michigan, Dr. Waugaman graduated from the United States Air Force Academy in 1985. He earned his MSEE at the University of Texas in San Antonio and his Ph.D. in Electrical Engineering from the University of Colorado in 1999. As an Air Force officer, Dr. Waugaman primary duties were as an Instructor Pilot and Associate Professor. Dr. Waugaman is a command instructor pilot with over 3300 flying hours in the T-38, TG-7, and UV-18. He is married to the former Melanie Peak of Lubbock, TX, and they have three grown children.

EDUCATION:

- 1985 B.S., Electrical Engineering, U.S. Air Force Academy, CO
- 1987 Squadron Officer School
- 1997 Master of Science in Electrical Engineering, University of Texas at San Antonio
- 1998 Air Command and Staff College
- 1999 Ph.D. in Electrical Engineering, University of Colorado, Boulder
- 2006 Air War College