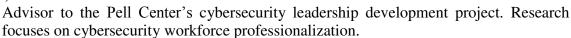# Sean C. G. Kern, CISSP

Employment History

1996 – Present   Cyberspace Operations Officer, USAF
1990 – 1996   Computer Systems Operator, USAF

Professional Experience

Adjunct Fellow, Cyber Leadership Policy, Pell Center for International Relations and Public Policy (Sep 2014 – Present)

> Advisor to the Pell Center's cybersecurity leadership development project. Research focuses on cybersecurity workforce professionalization.

Student, Executive Education Program, Joint Advanced Warfighting School (Jul 2014 – Present)

> Course-work revolves around strategy development, international relations, military history, operational planning and executive leadership. Executive immersion trips planned in 2015 for England, France, and surrounding countries to engage senior government and military officials to gain historical and contemporary understanding of the factors that affect joint and allied military campaign planning.

Assistant Professor, Information Resources Management College, National Defense University (Aug 2012 – Jun 2014)

> Taught cybersecurity, cyber intelligence, and cyber conflict course to senior civilian, military and international officers. Researched, developed, and instructed National Security Agency-certified graduate and distance learning curricula for NDU colleges and other institutions. Facilitated and participated in seminars, conferences. Advised senior U.S., international military officers and senior federal agency officials.

Commander (CIO), 451 Expeditionary Communications Squadron (Aug 2011 – Aug 2012)

> Executive Leader and CIO for 2,800-person combat air wing. Supervised 105 people across 3 business units that provided cyber | IT systems procurement, employment and operations for $65M communications infrastructure. Managed a $2.2M contingency reserve and project materiel inventories in support of combat theater support.

Commander (Deputy CIO), Det 1, 460 Space Communications Squadron (Jul 2009 – Jul 2011)

> Executive leader and Deputy CIO for a diverse workforce responsible for the maintenance and operation of a $180M distributed space ground relay station, distributing critical operational data to 110K personnel at 300 locations. Managed a $175K annual budget.

Flight Commander (Director of IT), 82 Communications Squadron (Mar 2006 – Jun 2008)

Direct report to CIO. Led activities of 88 cyber | IT personnel across four business units providing communications support to 5K personnel at 23 worldwide locations. Evaluated, tested, and integrated new technology for incorporation into mission critical systems.

Chief, Communications Division (Director of IT), 820th Security Forces Group (Mar 2003 – Mar 2006)

Direct report to the COO. Led diverse, 18 person business unit, directing in-garrison and deployed communications operations and maintenance for the Air Force's largest force protection and contingency response group. Developed long range plans to implement innovative technologies for intelligence and critical sensors. Responsible for annual budget of over $2M and deployment, installation, and configuration for over $100M in complex fixed and tactical communications systems supporting 685 personnel.

Software Analyst, Air Force Operational Test and Evaluation Center (Mar 2000 – Mar 2003)

Developed, updated, planned, and conducted software analysis training for AFOTEC analysts, test managers, and test directors. Planned and conducted test and evaluation of mission critical computer resources integrated into new and upgraded space and missile systems. Directed and participated in evaluation of software developed for multi-service programs, including the $450M Global Broadcast Service. Advised test teams on software issues. Researched, analyzed, developed, and evaluated software test and evaluation methodologies.

Configuration Control Manager, 1st Space Operations Squadron (Jul 1996 – Jul 1998)

Ensured readiness of all squadron command and control systems. Led software database maintenance support for two satellite control centers valued at $4.4B. Directed 40-person team providing technical support for 24-hour/7-day operations executing over 20,000 satellite missions per year.   Coordinated and approved software and hardware specifications, design, integration, and installation. Coordinated testing and validation and system audits.

Scholastic Honors

- Rollins College Leadership and Academic Excellence Award, 1996
- Who's Who Among Students in American Universities & Colleges 1995-1996
- Upsilon Pi Epsilon International Honor Society for the Computing and Information Disciplines

Publications

Spidalieri, F. and S. Kern. 2014. Professionalizing cybersecurity: a path to universal standards and status. Report by the Pell Center for International Relations and Public Policy.

Borum, R., J. Felker, and S. Kern. 2014. Cyber intelligence operations: more than just ones and zeroes. United States Coast Guard Proceedings.

Kern, S., A. Limbago, and S. Hengel. 2014. Operational cyber intelligence. Intelligence and National Security Alliance Whitepaper.

Kern, S., J. Felker, K. Denesen, and T. Feyes. 2014. Strategic cyber intelligence. Intelligence and National Security Alliance Whitepaper.

Kern, S. and K. Peifer. 2013. Senior Cyber Leadership - Why a technically competent cyber workforce is not enough. Report by The Cyber Security Forum Initiative.

Kern, S. 2009. A systems approach for assessing Iranian political stability. Master's Thesis. National Intelligence University.

Kern, S. 2000. A human-centered approach for designing decision support systems. Master's Thesis. Air Force Institute of Technology.

Kern, S., and M. Cox. 2000. A problem representation approach for decision support systems. Proceedings of the Eleventh Midwest Artificial intelligence and Cognitive Science Conference