## Welcome to The Cyber Defense Review-A Dynamic Multidisciplinary Dialogue

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## INTRODUCTION

e are proud to introduce the inaugural print edition of *The Cyber Defense* Review (CDR). This quarterly journal will generate an intellectual multidisciplinary dialogue through thought provoking scholarly articles and essays on the strategic, operational, and tactical aspects of the cyber domain. The CDR will break down barriers and foster innovative solutions to global cybersecurity challenges. This inaugural CDR compiles perspectives from preeminent thinkers across the government, industry, and academia regarding potential challenges, impacts, and initiatives for consideration as we come to grips with cybersecurity.

This scholarly effort from the Army Cyber Institute (ACI) at West Point grew out of its commitment to focus on the intellectual properties present in cyber research, cyber education, and cyber outreach. The ACI is a national resource dedicated to engaging the Army, government, academia, and industry in impactful partnerships to solve over the horizon problems for the Army and the Nation.

The CDR has already positioned itself as the leading online multidisciplinary cyber journal for military, industry, professional and academic scholars, practitioners and operators. The online CDR provides an unclassified venue for content divided into a journal with longer more thoroughly researched articles, and a blog with short engaging thought pieces to stir rapid discussion within the broader community. We publish original, unpublished, relevant and engaging contributed content from across the community.

The print *CDR* journal is a peer-reviewed publication for robust original, unpublished work to facilitate meaningful discussion. Our inaugural issue connects members of our diverse community to cross-pollinate ideas with the intent of solving tomorrow's

## WELCOME TO THE CYBER DEFENSE REVIEW



Colonel Tom Cook was commissioned Armor and later joined the Army Acquisition Corps. He currently serves as an Assistant Professor and Director of Research for the Army Cyber Institute at West Point. He has led Soldiers in combat and has written on several topics including software engineering, real-time systems, information assurance, and computer science education. He is a CISSP, CEH, GISP, GREM, and GSEC and holds a Masters in Computer Science and Ph.D. in Software Engineering from the Naval Post-graduate School and a Masters in Industrial Engineering from the University of Louisville.

cyber challenges today. It serves as a forum for sound logic, creativity, and innovative solutions to the challenges faced by the global cybersecurity community.

The first of three articles in the Senior Leader Perspective section begins with Lieutenant General Edward Cardon, Commander, Army Cyber Command, as he articulates the Army's urgent need to adapt and integrate our operating concepts for the cyber domain. Next, Rear Admiral Nancy Norton, Director of Warfare Integration for Information Warfare, describes the USN's emphasis on cyber security, noting that cyber is an enduring mission and the responsibility of every military leader. The Senior Leader Perspective concludes with Major General Ed Wilson, Commander, 24th Air Force and AFCYBER, discussion on US cyber reliance, and the Air Force's emphasis on changing to a culture of air-mindedness for cyber warriors. In the Professional Commentary section, Hewlett Packard Enterprise leaders Major General Matthews (USAF, Ret), Dr. Arata, and Mr. Hale assert the criticality of cyber situational awareness (SA) to mission success.

Progressing through this inaugural edition, we provide six scholarly articles in the Research Articles section. Dr. Demchak from the Naval War College scopes the global cyber landscape. She contends in the era of cyber conflict a conversation must occur regarding the future of the western dominated cyber framework. Next, Dr. Hagen and Dr. Lynes from Norway, provide a thought provoking and timely article on balancing government surveillance and privacy laws. Third, Dr. Jabbour and Major Poisson from the Air Force Research Laboratory, offer a must-read article on risk assessment in distributed information systems. Dr. Kallberg of the ACI brings to CDR readers a

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Dr. Corvin Connolly is the Editor in Chief of The Cyber Defense Review for the Army Cyber Institute at West Point. Dr. Connolly was the former Director of Government Relations at Air Force Space Command, and an active duty Air Force officer, retiring in 2006. During his Air Force career, Dr. Connolly served in strategic and tactical missile operations, NATO C2, legislative affairs, and created/edited the High Frontier Journal for Air Force Space Command. He is a former Senior Manager, Space and Cyber Systems for Lockheed Martin Corporate Strategy & Business Development. Dr. Connolly holds a Ph.D. in History from Texas A&M University.

novel strategy for cyber warfare. Dr. Libicki from RAND Corporation vividly juxtapose global requirements for cybersecurity and cyber warfare capabilities. The sixth and final article in the Research section, cyber scholars Ms. Spidalieri and Ms. McArdle, provide CDR readers with a comprehensive analysis of US Service Academies and their development of future cyber leaders.

We conclude this guarter's volume with a book review by Dr. Kallberg, ACI research scientist, on Dr. Aaron Brantly's brilliant and timely monograph, The Decision to Attack: Military and Intelligence Cyber Decision-Making.

We hope you find this inaugural edition of The Cyber Defense Review stimulating and educational, and come to realize both the importance and complexity of the cybersecurity environment. Please explore our future print and online offerings, provide feedback and contribute as we make this the best possible publication in the cyber community. Our next print issue will be published this July continuing the cyber dialogue with articles from General Joseph Votel, Commander of U.S. Central Command, Major General Stephen Fogarty, Commander, U.S. Army Cyber Center of Excellence, Mr. Thomas Harrington, Managing Director and Chief Information Security Officer at Citigroup, and Dr. Catherine Lotrionte, Director of the Institute for Law, Science and Global Security at Georgetown University. As we continue to build upon the intellectual framework created by this journal, we encourage you to join the conversation!