

## *The Cyber Defense Review:* Cyber Leadership During Uncertain Times

Colonel Andrew O. Hall



### INTRODUCTION

During these uncertain times of relentless cyber onslaughts against critical US infrastructure and DoD networks and systems, cyber leadership has never been so important to effectively defend and manage the national cybersecurity ecosystem. The intensive and crippling nature of cyber conflict requires cyber leadership not only to defend against cyberattacks of significant consequence but to also generate integrated cyberspace effects in support of operational plans and contingency operations.

The summer edition of *The Cyber Defense Review (CDR)* marks the seventh issue of our scholarly journal, which features three leadership perspectives, a professional commentary, four research articles, and one book review. BG Kenneth Hubbard and MAJ Jared Nystrom discuss financial stewardship in the cyber ecosystem, while COL David Wallace and LTC Mark Visger address the use of weaponized “honeypots” under the customary international law of state responsibility. COL (Ret) Keith Tresh and Maxim Kovalsky provide their leadership perspective on California’s Cybersecurity Integration Center and its advances in automated information sharing. Andy Cohen comments on effective cyber leadership, which stresses the importance of directing assumptions towards productive behavior. The *CDR* research articles address national workforce development for cybersecurity, best practices for teaching cybersecurity in small public universities, the consequences of state-sponsored hostile cyber operations under international law, and cybersecurity architectural analysis for complex cyber-physical systems. Finally, Dr. Jan Kallberg and Cadet Daniel Muncaster review *Strategic A2/AD*

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Colonel Andrew O. Hall is the Director of the Army Cyber Institute at the United States Military Academy (USMA) located at West Point, New York. In his position as Director, Colonel Hall leads a 53 person multi-disciplinary research institute and serves as the Chairman of the Editorial Board for *The Cyber Defense Review* journal; and Conference Co-Chair for the International Conference on Cyber Conflict U.S. (CyCon U.S.). He has a B.S. in Computer Science from the USMA, an M.S. in Applied Mathematics from the Naval Postgraduate School, and a Ph.D. in Management Science from the University of Maryland. Colonel Hall additionally teaches in the Department of Mathematical Sciences and the Department of Electrical Engineering and Computer Science at the USMA. Since 1997, Colonel Hall's military career has been focused on operations research and solving the Army's most challenging problems using advanced analytic methods. Colonel Hall also serves as the President of the Military Applications Society of the Institute for Operations Research and the Management Sciences. His research interests include Military Operations Research, Cyber Education, Manpower Planning, and Mathematical Finance.

in *Cyberspace*, which details the growing importance of cyber capabilities to the global balance of power.

I am pleased to announce that in July, the *CDR* installed the ScholarOne Manuscript web-based system to integrate manuscript invitation, submission, file conversion, correspondence, tracking, reviewer management, decision making, reporting, and user data management. Further, this system also integrates our *CDR* print and online production. Along with the end-to-end, customizable workflow system, the *CDR* also gets the benefit of working with a qualified team of manuscript implementation, training, and support experts. Also, we are excited with the *CDR's* continued relationship with JSTOR and its Security Studies collection, which now reaches 8,000 institutions and libraries in 160 countries. While *CDR* articles and authors are on JSTOR, Google is busy indexing their work for the cyber community.

The next opportunity for our community of cyber researchers, scientists, teachers, practitioners, operators and leaders to meet, discuss, challenge, and explore future solutions within the cyber domain is the 2018 International Conference on Cyber Conflict U.S. (CyCon U.S.), which is a collaborative effort between the Army Cyber Institute at West Point and the NATO Cooperative Cyber Defence Centre of Excellence (CCD COE) will be held November 14-15, 2018 at the Ronald Reagan Building in Washington, D.C. As a venue for fresh ideas, relevant and actionable content, and insight into future trends, CyCon U.S. seeks to promote multidisciplinary cyber initiatives that advance research and cooperation on cyber threats and opportunities. To support this year's theme of "Cyber Conflict during Competition", the CyCon U.S. conference is seeking papers that speak to the combination of cyber, electronic and information operations that infiltrate systems

and infrastructure, influence the sentiments of the populace and national decision makers, destabilize partners and allies, and set conditions for a ‘fait accompli’ campaign with conventional forces. In addition, this year’s CyCon U.S. conference marks the inaugural meeting of the world-class *CDR* Editorial Board. Please visit our [ACI CyCon U.S.](#) website for more information. Stay tuned for an impressive lineup of authors in the Fall *CDR*, to include GEN Joseph L. Votel, Commander of U.S. Central Command; Angela Messer and Brad Medairy, both senior cyber executives at Booz Allen Hamilton; Aristedes Mahairas, FBI Special Agent in Charge of the New York Special Operations and Cyber Division; Reva Goujon, Vice President of Global Analysis at Stratfor and Geopolitical Risk and Forecasting Expert. We look forward to continuing our dynamic, multidisciplinary dialogue on cyberspace. 