

## Publications (March 2007)

### Dr. Newton Howard

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#### ARTICLES

- Ammar Qusaibaty, Newton Howard & Sergey Kanareykin, "Intention Awareness in a Nutshell," *Defense Concepts* 1 no. 3. Fall 2006.
- Newton Howard, "Evolution of Commander's Intent in the US Military," *Advanced Concepts Group & Center for Advanced Defense Studies*, joint white paper, July 2007.
- Newton Howard, "Interoperability Training: A Key to Streamlined Law Enforcement," *Defense Concepts* 1, no. 2, Summer 2006.
- Ammar Qusaibaty and Newton Howard, "Intentional Cognitive Models with Volition," *Defense Concepts* 1, no. 2, Summer 2006.
- Newton Howard and Sergey Kanareykin, "Security Challenges to XML Web Services," *Defense Concepts* 1, no. 1, 15 April 2006.
- Mathieu Guidère and Newton Howard, "The Clash of Perceptions," *Defense Concepts Series*, March 2006.
- Newton Howard and Ammar Qusaibaty, "From Spirituality to Radicalization: Tableeghi Jamaat and the Potential for Transnational Violence," *Defense Concepts Series*, January 2006.
- Newton Howard, Ammar Qusaibaty, "Intention Awareness for Collective Sensemaking: C2 Concepts and Organizations, Cognitive Domain Issues, Social Domain Issues," *Command and Control Research Technology Symposium (CCRTS): The State of the Art and the State of Practice*, 2006.
- Newton Howard et al. The importance of cultural intelligence, *Defense Concepts Series*, to be published.
- Newton Howard and Sergey Kanareykin, "XML Intrusion Prevention: A Comprehensive Data Model," *Defense Concepts Series*, November 2005.
- Newton Howard and Ammar Qusaibaty (Eds.), "Mathematical Models in Counterterrorism", Springer 2007, to be published.
- Newton Howard, "Intent-Centric Paradigm Meta-Model", *Defense Concept Series*, to be published.
- Newton Howard, Ammar Qusaibaty, Sergey Kanareykin, Robey Holderith, "Cognitive Turing Machine", *Defense Concepts Series*, to be published.
- Newton Howard, "The Intent-Centric Paradigm: Analyzing Intentions and Capabilities to Stem Conflict", *Defense Concepts Series*, to be published.
- Alan Steinberg & Newton Howard, "To Protect and Serve: The Effects of Occupational Stress Hazards on Law Enforcement Officers," *Law Enforcement Executive Forum*, forthcoming Jan/Feb 2007.

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- Newton Howard, Jerrold Post & Alan Steinberg, "When Trauma Doesn't Bleed," *Defense Concepts* 1 no. 3. Fall 2006.
- Newton Howard and Sergey Kanareykin, "Discovery and Codification of Web Services Vulnerabilities", to be published.
- Newton Howard and Sergey Kanareykin, "Approach to Testing and Codification of Web Services Attacks", to be published.
- Newton Howard and Sergey Kanareykin, "Towards intent-based XML intrusion detection systems", to be published.
- Newton Howard, "Applying intention awareness and content-based routing concepts in Coalitions", to be published.
- Newton Howard, "Proposed Requirements Specification for Coalition Information Sharing", to be published.
- Newton Howard, "Evolution of Commander's Intent in the United State Military", to be published.
- Newton Howard, "The atomic structure of Plan-Systems", *Defense Concepts Series*, 1999.
- Newton Howard, "Planning and plan awareness", *Defense Concepts Series*, 1999.
- Newton Howard, "Global Defense Policy of Laws: A systematic approach toward international law," *Defense Concepts Series*, November 2005.
- Newton Howard, "Balance of Perception: a mathematical framework for GDPA/GDPL," *Defense Concepts Series*, 1999.
- Newton Howard, "U.S. policy in South Asia: unveiling the paradox of intention and capability in contemporary policy," *Defense Concepts Series*, 1999.
- Newton Howard, "Intention versus capability: the case of Iranian rapprochement," *Defense Concepts Series*, 1999.
- Newton Howard, "North Korea and American national security: establishment of a contrived balance of power," *Defense Concepts Series*, 1999.
- Newton Howard, "Application of Deterrence Assessment Methodologies to Commercial Ferry Attack Scenario," SSI at *Homeland Security Institute, IEEE Homeland Security Conference*, April 26, 2005.
- Newton Howard and Bradley A. Singletary, "Sense-making in Symbiotic Joint-Cognitive Systems," *CHI 2005*, sponsored by ACM's Special Interest Group on Computer-Human Interaction (ACM SIGCHI).
- Newton Howard and Sergey Kanareykin, "XML Security Challenges," *IEEE Homeland Security Conference*, April 26, 2005.

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- Newton Howard and Sergey Kanareykin, "BPL Interference for Remote Detection and Identification (BPLI RAID): wide area remote detection and identification technology using broadband-over-power-line," *IEEE Homeland Security Conference*, April 26, 2005.
- Newton Howard and Sergey Kanareykin, "Intent-Based Ontology for Grid Computing Using Autonomous Mobile Agents," *IEEE Homeland Security Conference*, April 26, 2005.
- Newton Howard and Seyed Ali Ahmadi, "Dimensions of Information Policy, Case Study: Iran," *International Conference for Information and Systems (INFOS)*, 2005.
- Newton Howard, "Applying the GDPSL to Today's Foreign Policy," *International Conference for Information and Systems (INFOS)*, 2005.
- Ammar Qusaibaty, Newton Howard and Sergey Kanareykin "Sensemaking and Intent-Based reasoning," *International Conference for Information and Systems (INFOS)*, 2005.
- David Tobenkin and Newton Howard, "The FCC's Broadband Over Power Line Inquiry: Considering Radio-Frequency Interference Rules of the Road for the Third High-Speed Communications Wire," *Virginia Journal of Law & Technology*, Fall 2004.
- Newton Howard, Colette Rolland and Ammar Qusaibaty, "Process Complexity: Towards a Theory of Intent-oriented Process Design," *International Conference for Information and Systems (INFOS)*, 2004.
- Newton Howard and Sead Muftic, "Security Framework for Development of Secure Network Applications," *International Conference for Information and Systems (INFOS)*, 2004.
- Newton Howard and Ammar Qusaibaty, "Network-centric Information policy," *International Conference for Information and Systems (INFOS)*, 2004.
- Newton Howard, "Cognition of Information," presented to Intelligence Community (IC) 2005 – ARDA Complex Document Information Processing (CDIP) challenge and 1<sup>st</sup> Strategic Language Conference 2004, at the Ecole spéciale militaire de Saint-Cyr and other Coëtquidan schools.
- David E.A. Johnson, Newton Howard (ed.) "Avoiding the Stellenbosch Syndrome: Strategy, Operational Concepts, and Measures of Effectiveness for a War on Terror."
- David E.A. Johnson, Mark Hollingsworth, Vincent Nwafor; Newton Howard (ed.) "SOF Logistics Transformation."
- Newton Howard and Ammar Qusaibaty, "The Parking Dilemma Integration Situation Awareness and Intention Awareness.", working paper.

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- Newton Howard, “Intent-Centric Warfare,” Newton Howard (strategic language conference Les Écoles de Coëtquidan - École Spéciale Militaire de Saint-Cyr, Nov 2004) (Boeing Aircraft company Dec 2004).
- Ammar Qusaibaty, Newton Howard and Sergey Kanareykin, “Intent-Centric Warfare in a Nutshell,” Boeing Aircraft company, Dec 2004.
- Ammar Qusaibaty, Newton Howard & Sergey Kanareykin “Intention Awareness in a Nutshell,” Boeing Aircraft company, Dec 2004.
- Newton Howard, System of Systems Survivability Simulation (S4) – collection of decision making processes (DMP) at all levels of the hierarchy. “The 21st Century Security Environment: Warfighting Implications,” prepared for and with the support of a US Government Agency. Further information on this project is deemed DoD classified until further authorization is requested.

## Publications (March 2007)

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#### BOOKS

(Some titles no longer publicly available)

- Intention Awareness and Situational Awareness; Equilibrium and Applications Reducing Uncertainty by Understanding the Cognitive Architecture.* Pending.
- Promoting Intention Awareness in Decision Support Systems,* book project.
- The Discrete Language,* Newton Howard and Ammar Qusaibaty, book project
- Seeking Peace in Our Time: From the Balance of Perception Theory to a Global Defense Policy System of Laws.* Washington, DC: 1stBooks Library. December 2003
- Theory of Intention Awareness in Tactical Military Intelligence: Reducing Uncertainty by Understanding the Cognitive Architecture of Intentions.* Washington, DC: 1stBooks Library. 2002.
- The Complexity in Weapons Systems Design.* Washington, DC: 1stBooks Library. 2002.
- Human Mind: The Geometry of the Impossible Space,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 2002.
- The Calculus of Order and Disorder.* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 2002.
- Toward a Unified theory of Cognitive Space.* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 2002.
- Mathematics and the Death of Numbers,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. 2002.
- Infinity and the Limit of Number Theory,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 1999.
- Multidimensional Time Understanding Combinatorial Manifolds,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 1999.
- The Logic of Uncertainty and Situational Understanding,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 1999.
- Awareness and the Science of Human Experience,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition; January 1997.
- Intelligence and Global Security: Inside Intelligence Process,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 1997
- The Topology of Intention,* Washington, DC: CADS/Institute for the Mathematics Complexity and Cognition. January 1997.