

About the Authors

SCOTT JASPER teaches courses in International Defense Transformation in the National Security Affairs (NSA) Department and Center for Civil-Military Relations (CCMR) at the Naval Postgraduate School (NPS). As a United States Navy Captain, Jasper served as the deputy for Joint Experimentation at Headquarters, U.S. Pacific Command. He drove the creation and implementation of a revolutionary concept for joint warfare that produced standardized procedure sets, mission-focused training tasks, and routine technology integration exercises for Joint Task Force component commands. His most recent publications include defense transformation-related articles in the Partnership for Peace Consortium of Defense Academies' quarterly journal, *Connections*; *Joint Force Quarterly*, a professional military journal; and the *Marine Corps Gazette*. His first edited volume is entitled *Transforming Defense Capabilities: New Approaches for International Security* (Lynne Rienner Publishers, 2009). Captain Jasper received his MA in national security and strategic studies from the Naval War College and an MBA from San Jose State University.

JEFFREY BECKER is a Futures analyst for U.S. Joint Forces Command, and a senior analyst with Science Applications International Corporation. Mr. Becker has contributed to military futures studies, as well as concept development and experimentation efforts for a wide variety of Department of Defense and NATO organizations. At U.S. Joint Forces Command's Joint Futures Group, Mr. Becker was responsible for writing, research, and analysis

for three editions of the “Joint Operating Environment” report, which addresses changes in the geopolitical and military landscape that will confront future joint force commanders. During his time at NATO’s Allied Command Transformation, he developed a concept to transform the Alliance’s crisis management information systems, and conducted the first set of military experiments within NATO Headquarters in Brussels. Mr. Becker has a Bachelor’s degree in political science from the University of Iowa, including a year studying politics and international relations at the University of Lancaster, UK. Mr. Becker completed his doctoral coursework (ABD) in international studies at Old Dominion University in Norfolk, Virginia.

DICK BEDFORD is the branch head for Strategic Engagement and Vision at the Supreme Headquarters for Allied Command Transformation in Norfolk, Virginia. A former naval officer, Captain Bedford served in a variety of command, operational, and staff billets in both the United States and Europe. Captain Bedford holds an engineering degree from Tulane University, an MA in public administration from the John F. Kennedy School of Government at Harvard University, and an MA in national security studies from the Walsh School of Foreign Service at Georgetown University. He is also a seminar graduate of the National Defense University’s School for Information and Resources Management, and a graduate of the Harvard University School for Senior Executive Fellows.

THOMAS BOWDITCH is the director of Strategic Initiatives at the Center for Naval Analysis (CNA) in Alexandria, Virginia. Dr. Bowditch’s work at CNA has focused on broad issues of national security, in particular the maritime component of national security strategy, with an emphasis on assessing real-world military operations including transformational initiatives. During the summer of 2007, Dr. Bowditch was temporarily assigned to the Commander, U.S. Central Command in Tampa where he completed a special project for the commander on strategic options for the way ahead in Iraq. This assignment required several trips to Iraq, where he visited the major U.S. commands and had multi-level discussions with American and Iraqi commanders. Earlier in Operation Enduring Freedom, he was in the Persian Gulf and Afghanistan during the first half of 2002, providing analytical support to the Marine Corps Combat Assessment Team. Dr. Bowditch is a retired Marine Colonel and holds a Ph.D. in international relations from the University of Virginia.

The Honorable PATRICK M. CRONIN is the director of both the Institute for National Strategic Studies and the Center for the Study of Chinese Military Affairs. Prior to these positions, Dr. Cronin served for over two years at the London-based International Institute for Strategic Studies, where he was director of studies. Previous assignments include posts as the director of research and senior vice president at the Center for Strategic and International Studies, assistant administrator for Policy and Program Coordination at the United States Agency for International Development, and director of research at the United States Institute for Peace. Dr. Cronin was an adjunct professor at Georgetown University's Security Studies Program, the Johns Hopkins University's Paul H. Nitze School of Advanced International Studies, and the University of Virginia's Woodrow Wilson Department of Government. He is the editor and co-author of numerous publications, including: "Global Strategic Assessment 2009: America's Security Role in a Changing World," Institute for National Strategic Studies, 2009; "Civilian Surge: Key to Complex Operations," Center for Technology and National Security Policies, July 2009; *The Impenetrable Fog of War: Reflections on Modern Warfare and Strategic Surprise* (Praeger, 2008); *The Evolution of Strategic Thought* (Routledge, 2008); *Double Trouble: Iran and North Korea as Challenges to International Security* (Praeger, 2007); and *The United States and Coercive Diplomacy* (U.S. Institute of Peace, 2003). Dr. Cronin earned his Master's and doctorate degrees in international relations at St. Anthony's College, University of Oxford.

WILL DOSSEL is a senior subject matter expert for Ballistic Missile Defense operations with a top-five defense firm. He has participated extensively in the development of BMD policy and guidance, joint/service integration, and the daily and contingency operations of the global BMD system. During his naval career, Captain Dossel was a naval flight officer, commanding an E-2C Hawkeye squadron, and served on joint and service staffs as an air- and missile-defense expert, technical intelligence analyst, political-military specialist in Soviet issues, and a strategic planner. From 2001–2004 he served as the deputy director for Strategy and Policy (N51B) on the OPNAV Staff, and as special assistant to the Chief of Naval Operations for Joint Matters. Captain Dossel has a Bachelor's degree in political science from The Citadel; a Master's with Distinction in national security studies (Soviet/East European Studies) from NPS, and is a graduate of the U.S. Naval War College (Command and Staff) with Highest Distinction.

MARCO FIORELLO is the chief scientist in the Sullivan International Energy and Advanced Technology Group DoD Mentor Protégé Program. His principal activities include renewable energy systems evaluation, and the development of a software architecture and decision support system for Sullivan's RobonostiX(tm), an unmanned vehicle platform and payload services health management and condition-based maintenance system to support defense and security command and control decision making. Dr. Fiorello has 30 years' experience in operations research, information science, and cost analysis, with an emphasis in decision-support system design. He is a principal designer of The Assessment Profiling System (TAPS), a decision-support system for command and control and training and readiness decision making. Dr. Fiorello holds a Ph.D. in Operations Research and Information Science, an MBA, and Bachelor of Science degrees in Production Management and Mechanical Engineering, all from the University of California, Berkeley, and is an Institute of Cost Analysis Certified Cost Analyst.

PAUL GIARRA is the president of Global Strategies and Transformation, a defense consulting firm. Previously a senior program manager at Hicks and Associates, Inc., he has supported transformation and experimentation in the Office of the Secretary of Defense, at United States Joint Forces Command, at NATO Headquarters, and at NATO Allied Command Transformation. During his naval career, Commander Giarra was a naval aviator; a naval strategic planner; a political-military strategic planner for Far East, South Asia, and Pacific issues; and managed the United States-Japan alliance in the Office of the Secretary of Defense. He has a BA in history from Harvard College, an MA in international relations from Salve Regina University, is a graduate of the U.S. Naval War College (Command and Staff) with Highest Distinction, and attended the National Institute of Defense Studies in Tokyo, Japan. He is the author, most recently, of "Asia's Military Balance at a Tipping Point," an op-ed, with Michael Green, for the *Asian Wall Street Journal*, 17 July 2009; and "A Chinese Anti-Ship Ballistic Missile: Implications for the U.S. Navy," in *Chinese Aerospace Developments*, Andrew S. Erickson, ed. (U.S. Naval Institute Press, forthcoming early 2010).

JEFF KLINE is a senior lecturer in the Operations Research Department and Program Director for Maritime Defense and Security research programs at NPS. A retired United States Navy Captain, he has over 26 years of naval op-

erational experience, including commanding two U.S. Navy ships and serving as deputy of operations for Commander, Sixth Fleet. In addition to his sea service, Captain Kline spent three years as a naval analyst in the Office of the Secretary of Defense. He is a 1992 graduate of NPS's Operations Research program, where he earned the Chief of Naval Operations Award for Excellence in Operations Research, and is a 1997 distinguished graduate of the National War College. Captain Kline's NPS faculty awards include the 2007 Hamming Award for interdisciplinary research, 2007 Wayne E. Meyers Award for Excellence in Systems Engineering Research, and the 2005 Northrup Grumman Award for Excellence in Systems Engineering.

JAMES KRASKA is a professor of international law at the U.S. Naval War College. Commander Kraska is author of numerous scholarly articles, which have appeared in journals such as *Ocean Development & International Law*, *World Policy Journal*, *International Journal of Marine & Coastal Law*, *Stanford Journal of International Law*, *Columbia Journal of International Affairs*, and *Yale Journal of International Law*. He has taught international law in the United States, Europe, and Japan, and is an elected member of the International Institute of Humanitarian Law in San Remo, Italy. Past military assignments include service as oceans policy adviser for Director, Strategic Plans & Policy, Joint Chiefs of Staff and Deputy Chief of Naval Operations for Plans, Policy and Operations. Commander Kraska is a graduate of the University of Virginia Law School, Indiana University Law School, and the School of Politics and Economics, Claremont Graduate School. Commander Kraska was awarded a post-doctoral fellowship in naval oceanography and national security from the Office of the Chief of Naval Research, which he served in residence at Woods Hole Oceanographic Institution, where he currently holds appointment as a guest investigator.

MIKE MANOR is the deputy chief of strategic studies at the United States Air Force Space Command, where he is actively engaged in shaping the strategic direction of space power through critical analysis of emerging space defense trends and challenges. A major in the United States Air Force, Manor is a career space operator and acquisitions officer, with experience ranging from satellite engineer on the Global Positioning System and classified programs in the National Reconnaissance Organization to crew commander in the 614th Air and Space Operations Center during Operation IRAQI FREEDOM. Major

Manor has a Bachelor's degree in management from the U.S. Air Force Academy, an MBA from Golden Gate University, and Master's degrees in military operational art and science at the Air Command and Staff College and in air-power art and science from the School of Advanced Air and Space Studies.

SANDRA M. MARTÍNEZ is a recognized expert in institutional and organizational change, organizational culture, and leadership development. As a National Security Education Program doctoral fellow, she studied institutional change in Mexico in the three years following the peso devaluation of December 1994. She was a co-investigator on the Global Leadership and Organizational Behavior Effectiveness project, and has published articles and book chapters on the influence of societal and national culture on management processes, and on leadership. Dr. Martinez is a former chair of Defense Transformation at the U.S. Army War College, where she focused her research and teaching on the impact of complexity on leadership, leadership development, and the social and cognitive domains of defense transformation. As a visiting professor with the Cebrowski Institute of NPS, she develops new curriculum for security professionals. Dr. Martinez holds a Ph.D. in business administration from New Mexico State University and an MA with distinction from the University of New Mexico in Latin American studies and international management. Her BA is in music, from Colorado Women's College.

STEVEN H. "MAC" MCPHERSON is an Air Force officer serving as the chief of staff for the Director, National Cyber Security Center, Department of Homeland Security. Prior to this assignment, he was the deputy director for both the USAF Chief of Staff's Strategic Studies Group, CHECKMATE, and the USAF Cyberspace Task Force. Colonel McPherson has held a variety of positions in both flying and non-flying operational areas, with multiple command assignments including the 23rd Information Operations Squadron and 11th Bomb Squadron. He is a B-52 weapons officer and master navigator with over 2,700 flying hours in multiple aircraft, including 163 combat hours during DESERT STORM. He holds a BA in biology from Southern Illinois University and an MA in Aeronautical Science Technology from Embry Riddle Aeronautical University. His articles have been published in the Stanford Jet Propulsion Laboratory *Proceedings*, *Defense News*, and the *Air Force Times*, and he has conducted presentations at numerous conferences and security fora on the cyber domain.

DONALD W. MCSWAIN served in the U.S. Navy for 24 years, accumulating over 4,800 flight hours as pilot in command in Navy tactical jets. Recognized for his planning expertise in joint and coalition warfare, he serves as an on-call presenter at the Air War College and the Naval War College. Commander McSwain served as senior naval strike liaison officer to support the Commander, 9th AF CENTAF/ JFACC for planning and executing Operations Desert Shield, Eastern Exit, and Desert Storm. As commanding officer TACRON 22, he deployed with members of the USMC 26th MEU(SOC) and RAF elements to Polce, Federal Republic of Yugoslavia, during Operations Provide Promise, Deny Flight, and Sharp Guard. His awards include the Bronze Star, Meritorious Service Medal, and Air Medal (5). He co-developed the TAPS for net-centric situational awareness and decision support for disaster relief, information operations, fourth-generation warfare, and other effects-based strategies.

SCOTT MORELAND is a lecturer, program facilitator, and research associate at the Center for Civil-Military Relations at NPS. He has participated in CCMR Transformation and Civil-Military Crisis Response events and interagency exercises throughout Europe, Latin America, and the Pacific. Prior to his arrival at CCMR, Mr. Moreland served in the U.S. Army. During his military career, he participated in multinational combat and civil-military operations with NATO Civil Military Integration Centers, the Iraqi and Panamanian National Police, and the El Salvadoran Special Forces. His last assignment was service as a Civil-Military Operations team leader and military liaison to the Babel Province Developmental Assistance Coordination Council during Operation Iraqi Freedom II. His most recent publication was a chapter entitled "Pressing Contemporary Issues," with James Mattox, in *Transforming Defense Capabilities* (Lynne Rienner Press, 2009).

KURT NEUMAN is a senior policy analyst for Northrop-Grumman, and supports the Strategic Studies, Policy and Doctrine Branch for Headquarters Air Force Space Command (AFSPC). In this capacity he is responsible for developing military space strategy, doctrine, and policy in support of the Commander, AFSPC. Recent projects include an assessment of international space cooperation and an examination of space deterrence for the Eisenhower Center's *Space and Defense* journal. Mr. Neuman retired from the Air Force as a lieutenant colonel, having served assignments in operations research; satellite command and control; launch operations; war gaming; and strategic planning

and policy development. Mr. Neuman holds a BA in aerospace engineering and mechanics from the University of Minnesota, along with an MA in business administration from the Anderson School of Management, University of New Mexico. In addition, he is a graduate of the Air Command and Staff College and Air War College.

MORT ROLLESTON is a Science Applications International Corp. defense analyst working onsite for the Headquarters Air Force Future Concepts Division (AF/A8XC). He authored all three annual editions of the U.S. Air Force Transformation Flight Plan at the direction of the Secretary of Defense, and has provided planning, analytical, and execution support to the Air Force's Title 10 "Future Capabilities Game," which explores alternative long-term force structures that may better address future operational challenges. Before arriving on the Air Staff, Mr. Rolleston was one of the primary analysts who conducted the Information Operations Joint Warfighting Capabilities Assessment (IO JWCA) for the Joint Staff, J-39. Prior to graduate school, he spent four years on the legislative staffs of two U.S. congressmen. Mr. Rolleston has a BA in Central and Eastern European affairs from the University of Colorado at Boulder and an MA in security policy studies from George Washington University's Elliott School of International Affairs.

GLENN ZIMMERMAN is an Air National Guard officer on active duty working in the USAF Chief of Staff's Strategic Studies Group—CHECKMATE. He is a recognized subject matter expert regarding cyber issues and developments, and is a featured presenter at venues around the globe. Prior to this assignment, Colonel Zimmerman was the Director of the Air National Guard Network Operations and Security Center, which provided operational oversight and administration of the ANG Enterprise, comprising 54 states and territories and over 106,000 users. While in this assignment, he was chosen to be part of the USAF Cyberspace Task Force, where he worked to establish the foundation for the Air Force's future in cyberspace operations, doctrine, and policy. He holds a dual BA in electrical engineering and computer science from the University of Colorado, and an MBA from Webster University. Additionally, he holds 14 current Information Technology certifications in specializations ranging from operating system and network design to security analysis.