



**CENTER FOR TECHNOLOGY AND NATIONAL SECURITY POLICY**

# **Unmanned Aerial Vehicles as an Instrument of War**



**December 14 - 15, 2009  
MARSHALL HALL RM 155  
FT. MCNAIR**





# Unmanned Aerial Vehicles as an Instrument of War



A Forces Transformation and Resources Seminar  
Marshall Hall Room 155, Fort Lesley J. McNair, Washington, DC 20319  
December 14 - 15, 2009

## Monday, December 14 – Current UAV Systems and Functions

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### 0900-0915 **Welcome and Introductory Remarks**

**Dr. James M. Keagle**, Director, Transforming National Security Seminar Series, Center for Technology and National Security Policy, NDU

### 0915-1015 **Wired for War: The Robotics Revolution and Conflict in the 21<sup>st</sup> Century**

**Dr. Peter Warren Singer**, Director, 21<sup>st</sup> Century Defense Initiative, The Brookings Institution

### 1015-1030 **Break**

### 1030-1130 **The Future of the USAF in an Unmanned Era**

**Lieutenant General David A. Deptula**, USAF, Deputy Chief of Staff for Intelligence, Surveillance, and Reconnaissance

### 1130-1230 **UAV Roles and Missions**

**Moderator: Mr. Larry Chalmer**, Director, NATO Education Center, NDU

**Mr. Michael D. Crisp**, Deputy Director, Operational Test and Evaluation Directorate, Air Warfare, Office of the Secretary of Defense

**Colonel Michael Isherwood, USAF (Ret)**, Senior Analyst, Northrup Grumman Analysis Center

**Major General Michael C. Kostelnik, USAF (Ret)**, Assistant Commissioner, U.S. Customs and Border Protection, Office of Air and Marine

**Mr. Kirk McConnell**, Professional Staff Member, Senates Armed Services Committee, U.S. Senate

### 1230-1330 **Lunch**

### 1330-1445 **Modern UAVs: Designs, Payloads, and Capabilities**

**Moderator: Dr. William Berry**, Distinguished Research Fellow, Center for Technology and National Security Policy, NDU

**Dr. Joseph N. Mait**, Senior Technical Researcher for Electromagnetics, U.S. Army Research Laboratory

**Colonel Eric Mathewson**, United States Air Force, Director, Unmanned Aircraft Systems Task Force

**Mr. Daniel Newman**, Program Manager, Tactical Technologies Office, Defense Advanced Research Projects Agency

### 1445-1500 **Break**

### 1500-1615 **The Warfighter's View from the Ground**

**Colonel Pete "Gunz" Gersten**, USAF, Commander, 432<sup>nd</sup> Air and Air Expeditionary Wing, Creech AFB, Nevada

**Mr. Noah Shachtman**, Contributing Writer, *Wired* magazine; Editor, *Danger Room* blog

**Colonel Trey Turner III**, USAF, Headquarters U.S. Air Force, Chief of Operational Training, MQ-1/MQ-9 Employment Subject Matter Expert

### 1615-1630 **Closing Remarks**

**Dr. James M. Keagle**, Director, Transforming National Security Seminar Series, Center for Technology and National Security Policy, NDU

## **Tuesday, December 15 – The of Future of Unmanned Aerial Systems**

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### **0900-0915 Welcome and Introductory Remarks**

**Dr. James M. Keagle**, Director, Transforming National Security Seminar Series, Center for Technology and National Security Policy, NDU

### **0915-1000 Waging War Without Warriors?: Robots and The Changing Nature of Military Conflict, Military Culture, and the Future of War**

**Professor Christopher Coker**, Department of International Relations, The London School of Economics and Political Science

### **1000-1015 Break**

### **1015-1145 Rise of the Machines: The Autonomous Line in the Sand**

**Dr. Peter Asaro**, Professor, Department of Media Studies and Film, The New School University

**Dr. Benjamin Goertzel**, CEO, Novamente LLC; Fellow, Institute for Ethics and Emerging Technologies; Board Member, Humanity+

**Dr. Poornima Madhavan (Virtual Presentation)**, Assistant Professor and Director of the Applied Decision-Making Laboratory, Department of Psychology, Old Dominion University

**Dr. Jerrold Post**, Professor of Psychiatry, Political Psychology, and International Affairs and Director, Political Psychology Program, The George Washington University

### **1145-1245 Lunch**

### **1245-1400 The HALO Effect: Is War Becoming A Game?**

**Colonel William Andrews, USAF**, Air Force Chair, Industrial College of the Armed Forces, NDU

**Dr. Peter Huessy**, Senior Defense Associate, National Defense University Foundation

**Mr. Marc Prensky**, CEO, Games2Train / Corporate Gameware LLC

**Mr. Randall Wallace**, Acting Chief Engineer and Systems Engineering Manager, Flight Systems, Lockheed Martin Simulation Training and Support

### **1400-1415 Break**

### **1415-1530 International Law and the Legal Implications of Using UAV**

**Ms. Jane Mayer**, Staff Writer, *The New Yorker*

**Ms. Hina Shamsi**, Senior Advisor to the Project on Extrajudicial Executions, School of Law, New York University

**Dr. Gary Solis**, Professor of Law, U.S. Military Academy (Ret); Adjunct Professor of Law, Georgetown University Law Center

### **1530-1545 Closing Remarks**

**Dr. James M. Keagle**, Director, Transforming National Security Seminar Series Center for Technology and National Security Policy, NDU



# SPEAKER BIOGRAPHIES



## **Colonel William Andrews**

Colonel William F. Andrews is the CSAF Chair at the Industrial College of the Armed Forces. He has commanded combat flying units at the squadron and group level, including command of Al Udeid AB, Qatar during Operation Enduring Freedom. His combat experience includes fighter missions in Desert Storm, Southern Watch, and Enduring Freedom. He was a POW in the closing days of Desert Storm after ejecting from a battle damaged F-16. He is a Command Pilot with 4400 flight hours. He is a graduate of the Air Force Academy and has earned masters degrees from the University of Alabama in history, the School of Advanced Airpower Studies, and the Industrial College of the Armed Forces. He is ABD in the history PhD program at George Mason University in Fairfax VA. His dissertation is on USAF aviators in the Vietnam War. He has served as a division chief on the Joint Staff J-8 in Washington, and taught history and political science at the National War College. He lives in Alexandria, Virginia with his wife Stacey, and son Patrick. His daughter Shannon is a senior at VCU in Richmond VA. His oldest son, Sean is a USAF 1st Lt deployed to Iraq.

## **Dr. Peter Asaro**

Peter Asaro is a philosopher, member of the Faculty of the Department of Media Studies and Film at the New School University, New York and does research and development for Wolfram Research. He has worked in human-computer interface design, artificial intelligence and robotics at the National Center for Supercomputer Applications, the Beckman Institute, and Iguana Robotics. He has written on cybernetics, new technologies and their ethical and legal challenges, as well as on military robots and just war theory.

## **Dr. William Berry**

Dr. William O. (Bill) Berry is a Distinguished Research Fellow at the Center for Technology and National Security Policy, National Defense University and a Senior Research Scientist in the Department of Biology at the University of Maryland. As the Acting Deputy Under Secretary of Defense for Laboratories and Basic Sciences (2004-2006) and the Director for Basic Research (2001-2006), Dr. Berry was responsible for providing scientific leadership, management oversight, policy guidance and coordination of the basic research programs of the Military Services and Defense Agencies. In addition, he was responsible for science, technology, engineering and mathematics education and workforce issues, policy for grants, policy for defense laboratories and international science and technology programs. At the Air Force Office of Scientific Research (1978-1997) Dr. Berry was responsible for the Air Force's basic research program in chemistry and life sciences. From 1983-1988 he served on the Aerospace Medical Panel of the North Atlantic Treaty Organization (NATO) Advisory Group for Aerospace Research and Development. Dr. Berry served as the U.S. Principal Member on the NATO Research and Technology Board (2005-2006) and as the U.S.



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Washington Deputy for The Technical Cooperation Program (TTCP) with Australia, Canada, New Zealand and the United Kingdom (2001-2006). From 1997-2001, Dr. Berry served as the Associate Deputy Assistant Secretary of the Air Force for Science Technology and Engineering and Director of the Washington Office of the Air Force Research Laboratory. Dr. Berry's research publications are in the fields of environmental toxicology, neuroscience, international S&T collaboration and national security S&T policy. Dr. Berry earned a BS in Biology from Lock Haven University, Lock Haven, PA, a MAT in Zoology from Miami University, Oxford, OH, and a Ph.D. in Zoology from the University of Vermont, Burlington, VT. He is a member of the American Association for the Advancement of Science and Sigma Xi, The Scientific Research Society.

## **Mr. Lawrence Chalmer**

Lawrence Chalmer is the Director of the NATO Education Center at the National Defense University, Washington, D.C. The Center's main program of NATO related education is mandated by the U.S. chief of defense, the Chairman of the Joint Chiefs of Staff, for attendance by US military officers enroute to NATO duties. He has been a Massachusetts Institute of Technology Seminar XXI Fellow in Foreign Politics and International Relations, and is a graduate of the Senior Managers in Government Program of Harvard University's Kennedy School of Government. A retired U. S. Air Force officer, Mr. Chalmer served in both national and international flying assignments, and in national operations and NATO policy assignments in Europe. As part of his support to the U.S. Joint Staff and NATO Headquarters, he has been a member of the NATO directing staff during crisis management exercises, most recently while working at the United Nations Headquarters. Mr. Chalmer's work in public diplomacy and NATO educational outreach has included substantive lectures and discussions in fifteen nations of NATO and the Partnership for Peace and to numerous educational institutions and military and civilian audiences in the United States. He produced an internet based distance-learning series of lessons used by NATO Headquarters as an introduction to NATO. In addition to his frequent work with NDU and other courses in the United States, he has lectured to international audiences at the Near-East South Asia Center for Strategic Studies, the National Defense University's College of International Security Affairs, and the NATO School – Oberammergau, Germany. He has discussed NATO issues internationally most recently with both government and civilian audiences in Georgia, Iceland, Italy, and Ukraine.

## **Mr. Christopher Coker**

Christopher Coker is Prof and Head of the Department of International Relations at the LSE. He is also Adjunct Prof at the Staff College, Oslo. He is the author of many works, including *War in an Age of Risk* (Polity 2009) and *Barbarous Philosophers: Reflections on the Nature of War from Heraclitus to Heisenberg* which will be published by Columbia University



# SPEAKER BIOGRAPHIES



Press.

## **Mr. Michael Crisp**

Mr. Michael D. Crisp serves as the Deputy Director, Air Warfare, Operational Test and Evaluation, Office of the Secretary of Defense, where he is directly responsible for the adequacy of operational test and evaluation for air systems within the Department of Defense. His responsibilities include oversight for the conduct of major weapons systems assessments that are reported to the Secretary of Defense and Congress. Mr. Crisp also serves as the Joint Test and Evaluation Program Director, which funds joint service projects to develop joint tactics, techniques, and procedures to better support joint operations. A career Naval Officer, Mr. Crisp is a NWC '98 and USNA '78 graduate. GO NAVY!

## **Gen. David Deptula**

Lt. Gen. David A. Deptula is Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance, Headquarters U.S. Air Force, Washington, D.C. He is responsible to the Secretary and Chief of Staff of the Air Force for policy formulation, planning, evaluation, oversight, and leadership of Air Force intelligence, surveillance and reconnaissance capabilities. As the Air Force's Senior Official of the Intelligence Community he is directly responsible to the Under Secretary of Defense for Intelligence. General Deptula completed ROTC at the University of Virginia as a distinguished graduate in 1974, and remained to complete a master's degree in 1976. Earning his wings in 1977, he has flown more than 3,000 hours (400 in combat) to include multiple operational fighter command assignments. He has taken part in operations, planning, and joint warfighting at unit, major command, service headquarters and combatant command levels. He has served on two congressional commissions charged with outlining America's future defense posture -- the Commission on Roles and Missions of the Armed Forces, and the National Defense Panel. Prior to assuming his current position, he served as Commander of the General George C. Kenney Warfighting Headquarters, and Vice Commander, Pacific Air Forces. General Deptula has significant experience in combat and leadership in several major joint contingency operations. He was the principal attack planner for the Desert Storm coalition air campaign in 1991. He has twice been a Joint Task Force Commander - in 1998/1999 for Operation Northern Watch during a period of renewed Iraqi aggression where he flew 82 combat missions, and for Operation Deep Freeze, supporting forces in Antarctica. In 2001, the general served as Director of the Combined Air Operations Center for Operation Enduring Freedom, where he orchestrated air operations over Afghanistan during the period of decisive combat. In 2005, he was the Joint Force Air Component Commander for Operation Unified Assistance, the South Asia tsunami relief effort, and in 2006 he was the standing Joint Force Air



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Component Commander for Pacific Command.

## **Colonel Peter Gersten**

Colonel Peter E. Gersten is commander, 432d Wing and 432d Air Expeditionary Wing, Creech Air Force Base, Nev. He is responsible for all operations and maintenance of the Air Force's first Unmanned Aircraft Systems wing, equipped with more than 140 MQ-1B Predator and MQ-9 Reaper unmanned aircraft. The 432d wing trains pilots, sensor operators, and other UAS crewmembers, and conducts combat surveillance and attack operations worldwide. As the 432d Wing and 432d Air Expeditionary Wing commander, he leads more than 2,500 Active Duty, Air National Guard, Air Force Reserve, government civilians, and contract personnel in two groups and the wing staff. In addition, as the 432d Air Expeditionary Wing commander, he has operational command over more than 625 Air National Guard personnel, located in Texas, Arizona, California and North Dakota. Colonel Gersten entered the Air Force in 1989 as a graduate of the USAF Academy Preparatory School and the USAF Academy with a Bachelor of Science degree in Human Factors Engineering and a minor in Mathematics. He graduated from Euro-NATO Joint Jet Pilot training in 1991 and is currently a command pilot with more than 2,800 total flying hours and over 400 combat hours. He has served in Operations DENY FLIGHT, ALLIED FORCE, SOUTHERN WATCH, ENDURING FREEDOM and IRAQI FREEDOM. Prior to his current position, he served as the 8th Fighter Wing Operations Group Commander at Kunsan Air Base, Republic of Korea.

## **Dr. Ben Goertzel**

Dr. Ben Goertzel is CEO and Chief Scientist of AI firm Novamente LLC and bioinformatics firm Biomind LLC, and Director of Research of the nonprofit Singularity Institute for AI. A research faculty for 8 years in several universities in the US and Australasia, he is the Chair of the Artificial General Intelligence conference series. Dr. Goertzel has authored eight technical monographs in the computing and cognitive sciences, and also edited four technical volumes. He has also published over 80 research papers in journals, conferences and edited volumes, in disciplines spanning AI, mathematics, computer science, cognitive science, philosophy of mind and bioinformatics; and has developed two AI-based trading systems for hedge funds in Connecticut and San Francisco. AI software created by his teams at Novamente LLC and Biomind LLC has been used in numerous government agencies and corporations.

## **Mr. Peter Huessy**

Since 1981, Mr. Huessy has been President of GeoStrategic Analysis, a Maryland defense policy consulting company and since 1992 Senior Defense Consultant, NDU Foundation. He specializes in the following policy areas: strategic nuclear, missile defense, counter-



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terrorism, space, energy, port/maritime and homeland security. He writes occasionally for Family Security Matters, Frontiers of Freedom, and Human Events. He has appeared on Homeland Security radio hosted by Colonel Randy Larsen. He has been a guest lecturer at the Joint Military Intelligence College at the invitation of Colonel (retired) Robert Lindseth, at the US War College at the invitation of Colonel (retired) Randy Larsen and Professor Janet Breslin, and a guest speaker at the Institute of World Politics and Johns Hopkins School of Advanced International Studies. He is a member of the Committee on the Present Danger. He regularly speaks on nuclear terrorism issues.

## **Mr. Michael Isherwood**

Michael Isherwood is a Senior Analyst in Northrop Grumman's Analysis Center where he provides in-depth analysis of military, political, and technological developments affecting national security. Prior to joining Northrop Grumman, Mike served 24 years in the Air Force retiring in the grade of Colonel. He's a command pilot with over 3,300 hours in the A-10 and F-16 aircraft with combat tours over Kuwait, Iraq and Afghanistan. He commanded at the squadron through wing level. His staff assignments included serving as a Special Assistance to the Chairman Joint Chiefs of Staff and the Chief of Staff, USAF plus serving as the deputy Air Component Command Element in Afghanistan. Mike was a distinguished graduate (with honors) from the US Air Force Academy, the US Air Force Weapons School and the National War College. His recent publications include "Aerospace Forces for Hybrid Warfare" (Air Force Magazine Sept. 2009), "Strike Now: The Next Generation Long Range Strike System provides strategic options" (Armed Forces Journal Feb. 2009), and "Over the Next Hill: The New Generation of Unmanned Aircraft Systems and the Marine Corps" (Marine Corps Gazette Feb. 2008).

## **Major General (Ret.) Michael Kostelnik**

Michael C. Kostelnik, Major General, USAF (Ret.) is the Assistant Commissioner, U.S. Customs and Border Protection, Office of Air and Marine. CBP Air and Marine is the world's largest aviation and maritime law enforcement organization with more than 900 Federal Agents, operating from 75 air and marine locations, with more than 280 aircraft and 220 marine vessels. General Kostelnik has worked for more than 38 years in government service. He served as the Deputy Associate Administrator for Space Station and Space Shuttle at the National Aeronautics and Space Administration (NASA). He spent more than 32 years on active military duty with the U.S. Air Force (USAF) serving as a fighter pilot and an experimental test pilot. He graduated from Texas A&M University with a Bachelor of Science degree in mechanical engineering in 1969, and a year later, he completed a Master of Science degree in industrial and management engineering from the University of Iowa. General Kostelnik has been recognized with numerous prestigious awards, including the Defense Distinguished Service Medal, Air Force Distinguished Service Medal with oak



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leaf clusters, and Legion of Merit.

## **Dr. Poornima Madhavan**

Dr. Poornima Madhavan is an Assistant Professor of Human Factors Psychology at Old Dominion University (ODU) Norfolk, Virginia, where she also holds an appointment at the Virginia Modeling, Analysis and Simulation Center. As director of the Applied Decision Making Laboratory at ODU, Dr. Madhavan supervises several federally funded projects that examine the study of human-technology interaction in complex environments such as the battlefield and their psychological underpinnings. In 2007, Dr. Madhavan received the Outstanding Professional Contribution award from the American Psychological Association for developing cognitive methodologies to improve training and visual search skills of aviation security screeners. Dr. Madhavan currently serves as Consulting Editor for the International Journal of Applied Aviation Studies and is a long standing member of the Human Factors and Ergonomics Society, and the American Psychological Association.

## **Dr. Joseph Mait**

Dr. Mait has been with the U.S. Army Research Laboratory since 1988, where he is presently a senior technical researcher (ST). As part of his responsibilities Dr. Mait manages ARL's program on Micro Autonomous Systems and Technology. He received his PhD from the Georgia Institute of Technology in 1985 and has been a professor of Electrical Engineering at the University of Virginia and an adjunct professor at the University of Maryland and Duke University. Dr. Mait has held visiting positions at the Universität Erlangen-Nürnberg and the National Defense University. He is currently Editor-in-Chief of Applied Optics and is a Fellow of the professional societies SPIE and OSA, and a senior member of IEEE.

## **Colonel Eric Mathewson**

Colonel Eric S. Mathewson is the Director, Air Force Unmanned Aircraft Systems Task Force, Headquarters United States Air Force, Pentagon, Washington DC. The Task Force is the single voice and focal point for unmanned systems in the Air Force; and the lead organization for the development and implementation of the Air Force Unmanned Aircraft Systems Flight Plan, a comprehensive, capabilities-based plan through 2047. Prior to this assignment, Col Mathewson was the Commander of the 432nd and 57th Operations Groups, Creech Air Force Base and Nellis Air Force Base, Nevada, where he led six active duty and six Air Reserve Component attack and reconnaissance squadrons flying the MQ-1 "Predator" and MQ-9 "Reaper" aircraft both in training and in combat operations around the globe. Colonel Mathewson entered the Air Force in 1983, receiving his commission upon graduation from North Texas State University. Following pilot training in 1984, he began his operational flying career, which has included assignments in F-15C, F-111E, MQ-1 and



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OV-10 aircraft. He was a distinguished graduate of Squadron Officer School in 1989 and the Top Graduate of Air Command and Staff College in 1998. Additionally, he was the Chief of Unmanned Aerial Vehicle System Management Organization, Directorate of Requirements, Headquarters Air Combat Command, Langley Air Force Base, Virginia. This division was the focal point for unmanned aircraft systems within the CAF; and the Commander of the 15th Reconnaissance Squadron, where he led a team of warriors in the development and combat employment of the first tactics, techniques and procedures for armed remotely piloted aircraft. He has served numerous combat tours in both Central America and Southwest Asia.

## **Ms. Jane Mayer**

Jane Mayer joined *The New Yorker* as a staff writer in March, 1995. Based in Washington, D.C., she writes about politics and national security for the magazine. Recent subjects include a profile of CIA Director Leon Panetta, the CIA and Pentagon's secret torture policy, how the United States outsources torture (rendition), the prison at Guantánamo Bay, and Vice President Cheney and his chief of staff, David Addington's influence over U.S. interrogation and detention policies. She has also written about George W. Bush, the bin Laden family, Sarah Palin, and the television show "24." Before joining *The New Yorker*, Mayer was for twelve years a reporter at the *Wall Street Journal*. In 1984, she became the *Journal's* first female White House correspondent. She was also a war correspondent and a foreign correspondent for the paper. Among other stories, she covered the bombing of the U.S. Marine barracks in Beirut, the Persian Gulf War, the fall of the Berlin Wall, and the final days of Communism in the Soviet Union. Mayer was the 2008 winner of the John Chancellor Award for Journalistic Excellence, as well as a Guggenheim Foundation Grant in 2008, and winner in 2009 of the Goldsmith Book Prize from Harvard, the 2009 Edward Weintal Prize from Georgetown University, the 2009 Ridenhour Prize, the New York Public Library's 2009 Helen Bernstein Book Award for Excellence in Journalism, the 2009 J. Anthony Lukas Prize from Columbia, the 2009 Sidney Hillman Award for journalism promoting social justice, and the 2009 Ambassador Award from the English-Speaking Union. She was also a 2009 finalist for the National Book Award and for the National Book Critics Circle Award. She has twice been a finalist for the National Magazine award, and was nominated twice by the *Journal* for a Pulitzer Prize in the feature-writing category. Before joining the *Journal*, in 1982 Mayer worked as a metropolitan reporter for the *Washington Star*. She began her career in journalism as a stringer for *Time* magazine while still a student in college. She has also written for a number of other publications, including the *Washington Post*, the *Los Angeles Times*, and the *New York Review of Books*. Mayer is the author of the best-selling 2008 book, "The Dark Side: The Inside Story of How the War in Terror Turned into a War on American Ideals," which was chosen as one of the ten best books of the year by *The New York Times*, the *Economist Magazine*, *Salon*, *Slate* and



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Bloomberg. She was also the co-author of two additional best-selling books. “Strange Justice” written with Jill Abramson, published in 1994, was a finalist for the 1994 National Book Award for nonfiction. Her first book, “Landslide: The Unmaking of the President, 1984-1988,” co-authored by Doyle McManus, was an acclaimed account of the Reagan White House’s involvement in the Iran-Contra affair. In 2009, Mayer was chosen Princeton University’s Ferris Professor of the Humanities, teaching an undergraduate seminar on political reporting. Mayer, who was born in New York, graduated with honors from Yale in 1977 and continued her studies in history at Oxford. She lives in Washington with her husband, Bill Hamilton, and daughter, Kate.

### **Mr. Kirk McConnell**

Kirk McConnell since 2007 has served as a Professional Staff Member of the majority staff of the United States Senate Committee on Armed Services (SASC). His areas of responsibility include the Military Intelligence Program, the National Intelligence program, cyber security, and Marine Corps ground force programs. Prior to joining the SASC staff, Mr. McConnell served for two years on the Senate Select Committee on Intelligence as the Committee’s monitor for the Consolidated Cryptologic Program, Special Activities, and the Military Intelligence program. For the previous 10 years, Mr. McConnell served on the minority staff of the House Permanent Select Committee on Intelligence, where his oversight responsibilities included the National Reconnaissance Office, the National Geospatial Intelligence Agency, Special Activities, the Military Intelligence Program, intelligence reform legislation, and multiple special investigations. For the preceding 8 years (1987-1995), Mr. McConnell served on the SASC majority staff, with responsibilities for DoD intelligence programs, C3 and space programs, most of the defense agencies, Army and Marine Corps ground force programs, and FEMA defense programs. From 1979-1987, Mr. McConnell worked in the private sector conducting studies and analyses for DoD elements and aerospace companies.

### **Mr. Daniel Newman**

Mr. Daniel Newman serves as a Program Manager in the Tactical Technologies Office of the Defense Advanced Research Projects Agency (DARPA). Prior to joining DARPA, Mr. Newman was a Technical Fellow of The Boeing Company in V/STOL Aircraft Configuration Development. While at Boeing Mr. Newman served as the Program Manager for Boeing Joint Heavy Lift efforts, on the RAH-66 Comanche Program as Full Scale RCS Model IPT Lead and Configuration Closure Team Lead, as Design Lead for numerous developmental programs, as Manager of Preliminary Design, as the focal for NASA Ames Research Center efforts, and in numerous other design and leadership roles. Mr. Newman received a BS in Mechanical Engineering from Cornell University, and an MS in Aerospace Engineering from the Alfred Gessow Rotorcraft Center at the University of Maryland. Since



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1998, Mr. Newman has served as an Adjunct Professor in the Department of Mechanical Engineering and Applied Mechanics at the University of Pennsylvania.

## **Dr. Jerrold Post**

Dr. Post has devoted his entire career to the field of political psychology. Dr. Post came to George Washington after a 21 year career with the Central Intelligence Agency where he was the founding director of the Center for the Analysis of Personality and Political Behavior. He played the lead role in developing the "Camp David profiles" of Menachem Begin and Anwar Sadat for President Jimmy Carter and initiated the U.S. government program in understanding the psychology of terrorism. In recognition of his leadership at the Center, Dr. Post was awarded the Intelligence Medal of Merit in 1979. He served as expert witness in the trial in the spring of 2001 for the al Qaeda terrorists responsible for the bombing of the U.S. embassies in Kenya and Tanzania, and, since 9/11, has testified on terrorist psychology before the Senate, the House of Representatives, and the United Nations. He is a widely published author, whose most recent books are "Leaders and Their Followers in a Dangerous World: The Psychology of Political Behavior" and "The Mind of the Terrorist: The Psychology of Terrorist from the IRA to al-Qaeda." Dr. Post is a frequent commentator on national and international media on such topics as leadership, leader illness, treason, the psychology of terrorism, suicide terrorism, weapons of mass destruction, Osama bin Laden, Saddam Hussein, Hugo Chavez, Mahmoud Ahmadinejad and Kim Jong Il.

## **Mr. Marc Prensky**

Marc Prensky is an internationally acclaimed speaker, writer, consultant, futurist, visionary and inventor in the critical areas of education and learning. Marc is the founder of Games2train, an e-learning company whose clients include IBM, Bank of America, Nokia, the US Department of Defense and the Los Angeles and Florida Virtual Schools. He is the author of the critically acclaimed Digital Game-Based Learning (McGraw-Hill, 2001) and "Don't Bother Me Mom – I'm Learning" (Paragon House 2005.) Marc's professional focus has been on reinventing the learning process, combining the motivation of video games and other highly engaging activities with the driest content of education and business. He is considered one of the world's leading experts on the connection between games and learning. His innovative combination of educational tools and game technology – including the world's first fast-action videogame-based corporate training tool – is being accepted throughout schools, government and corporate America. Strategy+Business magazine called Marc "That rare visionary who implements." Marc has designed and built over 100 software games in his career, including world-wide, multi-user games and simulations that run on all platforms from the internet to handhelds to cell phones. Marc has created the most advanced and engaging technology for education, business training and e-Learning. Marc's presentations inspire audiences by opening up their minds to new ideas and



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approaches to technology and education. Marc's products and ideas are innovative, provocative, challenging, and clearly show the way of the future. The New York Times, The Wall Street Journal, Newsweek, Time, Fortune and The Economist all have recognized Marc's work. He has appeared on MSNBC, CNN/fn, FOX News, PBS, and the BBC. In 2000 Marc was named as one of training's top "New Breed of Visionaries" by Training. Marc also writes a column for Educational Technology magazine, and for Greentree Gazette, a publication for leaders in academia. Marc's background includes masters degrees from Yale, Middlebury, and The Harvard Business School (with distinction). He is a concert musician and has acted on Broadway. He has taught at all levels from elementary to college. He worked in Human Resources and in Technology at Bankers Trust Company, and spent six years as a corporate strategist and product development director with the Boston Consulting Group. Marc is a native of New York City, where he lives with his wife Rie Takemura, a Japanese writer, and their 3 ½ year-old son Sky.

## **Mr. Noah Shachtman**

Noah Shachtman is a contributing editor at Wired magazine, and the editor of its award-winning national security blog, "Danger Room."

He's written about technology and national security for The New York Times, The Chicago Tribune, and The Bulletin of the Atomic Scientists, among others. And he's reported from Afghanistan, Israel, Iraq, and the Pentagon. The Associated Press, CNN, Fox News, MSNBC, and NPR has all turned to him to provide insight on defense developments. Before turning to journalism, Shachtman worked as a professional bass player, book editor, and campaign staffer on Bill Clinton's first presidential campaign. He lives in New York City with his wife, Elizabeth.

## **Ms. Hina Shamsi**

Hina Shamsi is the Senior Advisor to the Project on Extrajudicial Executions at NYU Law School, which supports the work of the United Nations Special Rapporteur on Extrajudicial Executions. In this capacity, she conducts factual and legal research and policy analysis on issues related to killings committed in violation of international human rights or humanitarian law. Ms. Shamsi has engaged in human rights and civil liberties research, litigation and policy advocacy on a variety of issues, including torture, detention, fair trial practices, and the freedoms of speech and association. Her work includes a focus on the intersection of national security and counterterrorism policies and international human rights and humanitarian law, and she has represented both individual and institutional clients in national security cases in U.S. federal courts. She is a Lecturer-in-Law on international human rights at Columbia Law School, the author and co-author of publications on torture and extraordinary rendition, and has monitored and reported on the military commissions at Guantanamo Bay. She previously worked as a Staff Attorney in the ACLU's National



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Security Project. Before joining the ACLU, she was the Deputy Director and Senior Counsel of Human Rights First's Law & Security Program.

## **Dr. Peter Singer**

P.W. Singer is Director of the 21st Century Defense Initiative at the Brookings Institution. He is the author of *Corporate Warriors: The Rise of the Privatized Military Industry* (Cornell, 2003); *Children at War* (Pantheon, 2005); and the NY Times bestseller, *Wired for War: The Robotics Revolution and Conflict in the 21st Century* (Penguin, 2009). Singer has previously worked at Harvard University, the Office of Secretary of Defense, and served as coordinator of the defense policy task force for the Obama '08 campaign. For further information: [www.pwsinger.com](http://www.pwsinger.com).

## **Dr. Gary Solis**

Gary D. Solis is a retired Professor of Law, United States Military Academy. For six years he directed West Point's law of war program. He was a 2007 Library of Congress scholar in residence. He is a retired Marine Corps lieutenant colonel with 26 years active service, having twice served in Vietnam, where he was twice a company commander. His law degrees are from the University of California at Davis, and George Washington University. As a judge advocate and military judge he participated in 760 courts-martial. His doctorate in the law of war is from The London School of Economics & Political Science, where he subsequently taught for three years. He currently teaches the law of war as an adjunct professor of law at Georgetown University Law Center, and at the International Institute of Humanitarian Law, in San Remo Italy. His books are *Marines and Military Law in Vietnam*, and *Son Thang: an American War Crime*, and *The Law of Armed Conflict* (Cambridge University Press, February 2010).

## **Col Trey Turner III**

Colonel Luther S. Turner III is Chief of the Operational Training Division, Headquarters U.S. Air Force, Washington, D.C. The Division develops policy for management, production and training of 32,000 officer and enlisted aircrew. Sourcing \$32B for flying training, exercises and the \$6B annual flying training program. Prior to this assignment, Col Turner was the Commander, 451st Air Expeditionary Group, Kandahar Airfield, Afghanistan. Col Turner received his commission into the United States Navy in 1987 through Aviation Officer Candidate School (AOCS). He earned a Bachelor of Science in Industrial Management in 1986 and was awarded a Masters of Business Administration in 1996, both from the University of Alabama. He is a command pilot with over 4,000 hours in the MQ-9, M/RQ-1B, F/A-18, F-14, TA-4J and has 376 carrier-arrested landings. He is currently a dual qualified instructor and evaluator in the Predator and the Reaper.



# SPEAKER BIOGRAPHIES



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## **Mr. Randy Wallace**

Randall W Wallace is the Acting Chief Engineer, Systems Engineering Manager, Joint Strike Fighter Training Devices LRIP3 Project Lead. Randall has over 20 years experience in Fast Jet Simulation and Training design. Primary areas of focus have been hardware, software and system design for Visual Systems, Sensor Systems, Aircraft Systems, Sound and Communication Systems. In addition, Randall has 8 years experience in Research and Development of flight worthy Avionics and Sensor Systems for military and commercial aircraft. Education: BSEE The Ohio State University, MSEE University of Akron. He is also a member of AIAA.