

# FOCUS

## Bold Ideas 2010: A new initiative for a new decade

With the arrival of the new decade, the Potomac Institute for Policy Studies is proud to unveil **Bold Ideas 2010**, a fresh take on what we do best: “seeing around the corners” when it comes to forecasting the national security threats we’ll face in the coming years, applying critical thinking to the problems at hand, and providing the kind of nonpartisan, unvarnished policy guidance that leaders in government and industry have come to rely on. For more on **Bold Ideas 2010**, please see this issue’s *Message from the CEO*, Michael Swetnam, on page 3.

### Inside this Issue:

- Message from the CEO: Bold Ideas 2010...3
- Gail Clifford Named VP...3
- Center for Neurotechnology Studies Forges Ahead...5
- New Scientific Journal Debuts...5
- Health Policy Center’s New Name Reflects Updated Mission...7
- CEEE Holds First Event...8

## Racing to Stop a Cyber 9/11—

### Potomac Institute Experts Tackle Cyber Security Challenge

What would a cyber 9/11 look like - and what would the impact be? That’s the troubling question facing the Potomac Institute for Policy Studies’ cyber team, led by BGen. Dave Reist (USMC, Ret.) and Justin Rossi. The team is supporting a consortium based at Norwich University Applied Research Institute (NUARI) in the development of software aimed at mitigating the consequences of a cyber attack, and is assisting in a critical review of cyber security policy - before it’s too late.

Our country, as well as the entire world, relies on computers and the networks on which they operate. This infrastructure and related information networks are vital and must be protected. But our current systems and doctrine *can* be exploited, and our adversaries likely view this area as one in which the United States can be asymmetrically attacked. With current vulnerability to cyber sabotage, emergency preparedness—ensuring clear leadership, an effective chain of command, and a smooth, and integrated flow of communications in the event of a



BGen. David Reist USMC (Ret.)

(Racing to Stop a Cyber 9/11 cont’d on page 2)

### Don’t Miss:

ICTS’ Yonah

Alexander:  
11th Annual  
Terrorism  
Review...4



CETO:

Commercial  
Hunter Helps  
USMC Fight  
New  
Threats...6



Can’t Get to an Institute Event? Watch the Webcast!...2

## Racing to Stop a Cyber 9/11

(continued)

cyber disaster—remains a national security priority.

The Obama administration recently named a cyber czar (Howard Schmidt), creating the position of a national cyber security coordinator based at the White House. The extent of the new coordinator's authority to effect change remains an open question. Some have expressed reservations about the coordinator's lack of a congressional mandate and budget, but former DHS cyber official Amit Yoran believes that Mr. Schmidt's influence, due to his proximity to the president, should not be underestimated. His challenges are Herculean in coordinating the efforts of the public and private sectors. Approximately 85% of the infrastructure that is susceptible to cyber attack is owned by the private sector so it will require tremendous leadership, prescient policy, and tremendous cooperation in order to safeguard these capabilities.

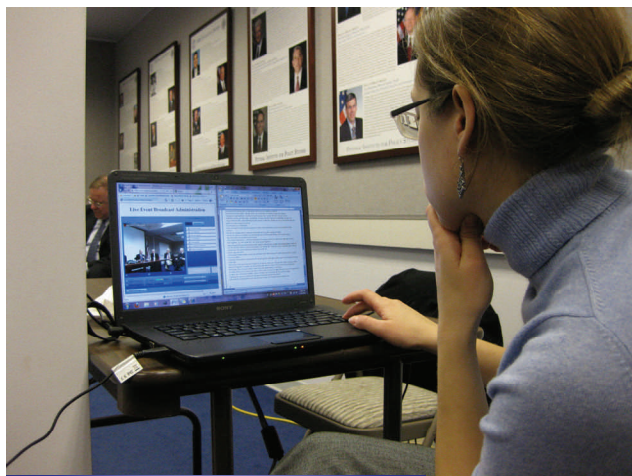
DHS currently has the lead for cyber disaster response. Whether or not future incident response protocols will require greater DHS oversight, what Reist calls a greater "unity of command," remains to be seen. Consequently, increasing "unity of effort" among public and private sector stakeholders will only enhance our ability to defend and respond. Achieving an effective flow of communications and information sharing in the event of a cyber disaster represents a significant challenge to protecting our networks. The information exchange must be fast, accurate, and comprehensive. Information sharing requires willing participants, as legal and security obstacles currently preclude information-sharing mandates. Private companies have little incentive to share data. On the other hand, private stakeholders do not always receive the actionable threat intelligence they expect since government agencies are unable to share classified information. While consequence mitigation remains an important task, too much emphasis on incident response could mean we never get ahead of those who seek to harm us.

Despite numerous challenges, the U.S. government must confront this vexing issue of cyber security, and some private sectors already have the ball rolling. The S&T policy world should brace itself for an evolution in the way cyber security efforts shape government and corporate relationships.



## "Going Live"

### Institute Events Now Available as Webcasts



In January, the Potomac Institute for Policy Studies was pleased to begin offering live webcasts of most Institute events. It's easy to watch an event: just go to our website, [www.potomac institute.org](http://www.potomac institute.org), at the time of the event, and click on the "Live Event" option in our main menu to access our Live Event page. Many public events can be viewed without a password. Passwords are provided in advance for invitation-only events.

To keep up with our schedule of thought-provoking programs, visit [www.potomac institute.org](http://www.potomac institute.org) at any time, click on "Events," and follow the link to see a list of upcoming lectures, workshops and seminars.



## Message From the CEO

We begin this new decade with a multitude of major societal problems complemented by

unprecedented technological progress. The two trends are linked in ways we do not fully understand. Technology has changed almost everything about the business world, spreading local firms internationally and expanding the reach and effects of most human commerce. The rapid and unprecedented spread of technologies has allowed people to live longer, and travel and communicate globally.

These same technologies bring international pressure on cultures and societies whose previous isolation allowed for a relatively stable existence. Today many areas of

the world are racked with cultural and religious wars fueled by a global communications system that allows the “have-nots” to witness daily the wealth of the “haves.” Clearly, human affairs are changing and evolving at an ever increasing rate.

A key part of this new decade is that most human activities today have global reach. This is true because most every event, and bit of news is almost immediately available on the World Wide Web. This amplifies the effects of our activities, vastly increasing the potential for our activities to cause good or evil.

Our societal challenges are therefore more profound and more complicated than they were decades ago. We will need to address these new challenges with broad and **Bold Ideas** that account for the

global nature of today’s world.

That will be the focus of the Potomac Institute for Policy Studies for the next several years. We ask for your input, guidance and help in this venture.



## Gail Clifford

### Named Vice President, Financial Management



Gail Clifford, CPA, MBA

Gail Clifford, Chief Financial Officer for the Potomac Institute for Policy Studies since 2001, was officially named a Vice President of the Institute in January, 2010. The Board of Directors appointed her Vice President for Financial Management and Chief Financial Officer. In making the announcement, CEO and Chairman of the Board Michael Swetnam noted Gail’s “extraordinary efforts” to grow the Institute’s fiscal assets, adding, “Our success has truly been possible because of her.”

### LEADERSHIP

MICHAEL S. SWETNAM  
CHAIRMAN AND CEO  
THOMAS O’LEARY  
EXECUTIVE VICE PRESIDENT FOR STRATEGY,  
PLANNING AND PROGRAMS  
GAIL CLIFFORD  
VICE PRESIDENT FOR FINANCIAL MANAGEMENT AND CHIEF FINANCIAL OFFICER

### BOARD OF DIRECTORS

MICHAEL S. SWETNAM  
CHAIRMAN OF THE BOARD  
LYLE COX, PhD  
GENERAL ALFRED GRAY, USMC (RET.)  
HOWARD SCHUE  
GARY SOJKA

### BOARD OF REGENTS

GENERAL ALFRED GRAY, USMC (RET.)  
CHAIRMAN  
YONAH ALEXANDER, PhD  
VICE ADMIRAL ALBERT BACIOCCO, JR., USN (RET.)  
JEFF “SKUNK” BAXTER  
TERRY COLLINS, PhD  
RITA COLWELL, PhD  
DANIEL GALLINGTON, ESQ.  
REAR ADMIRAL JOHN E. (TED) GORDON, JAGC, USN (RET.)  
JAY GROVE  
CHARLES HERZFELD, PhD  
KATHLEEN KIERNAN, PhD  
ROBERT LAPENTA  
AMBASSADOR DAVID MILLER, JR.  
A. ALAN MOGHISSI, PhD  
ALDEN V. MUNSON, JR.

GORDON OEHLER, PhD  
JOSEPH PARESI  
FRED SAALFELD, PhD  
TIMOTHY SAMPLE  
HOWARD SCHUE  
GEORGE SPIX  
GENE SYKES

### INSTITUTE SENIOR FELLOWS

GENERAL ALFRED GRAY, USMC (RET.)  
HONORABLE PENROSE ALBRIGHT, PhD  
PROFESSOR YONAH ALEXANDER, PhD  
VICE ADMIRAL ALBERT J. BACIOCCO, JR., USN (RET.)  
REAR ADM. JAMES BARNETT, JR, USN (RET.)  
JEFF “SKUNK” BAXTER  
PAUL CHATELIER  
STEPHEN O. CUNNION, MD, PhD, MPH  
HONORABLE SHANA L. DALE, ESQ.  
DONALD A. DONAHUE, JR., DHEd, MBA, FACHE, CHS-III  
SEAN FITZPATRICK  
DANIEL GALLINGTON, ESQ.  
COLONEL RANDY GANGLE, USMC (RET.)  
JAMES GIORDANO, PhD  
HONORABLE DAN GOLDIN  
REAR ADMIRAL JOHN E. (TED) GORDON, JAGC, USN (RET.)  
TAWFIK HAMID, MD  
CHARLES HERZFELD, PhD  
JONATHAN JAVITT, MD, MPH  
DAVID KAY, PhD  
DONALD C. LATHAM  
HONORABLE JAMES B. LONGLEY

HONORABLE JAMES B. LONGLEY  
A. ALAN MOGHISSI, PhD  
ROSCOE MOORE, D.V.M., PhD, D.SC.  
PROFESSOR PAUL NOJA, PhD  
GORDON OEHLER, PhD  
JAMES J. RICHARDSON, PhD  
FRED SAALFELD, PhD  
MAJOR GENERAL ROBERT SCALES, USA (RET.)  
AMBASSADOR DAVID SMITH (RET.)  
JAMES TATE, JR., PhD  
TEVI TROY, PhD  
MAJOR GENERAL WILLIAM A. WHITLOW, USMC (RET.)

### INSTITUTE FELLOWS

ROBERT C. ALDRICH, FBI (RET.)  
COLONEL GARY ANDERSON, USMC (RET.)  
LAWRENCE BARNTHOUSE, PhD  
DOUGLAS H. BENNETT  
RICHARD COLEMAN  
EVAN DERENZO, PhD  
CAPTAIN WILLIAM GRAVELL, USN (RET.)  
MARVIN LEIBSTONE  
PETER LEJEUNE  
BETTY LOVE  
RICHARD MARGRAVE, PhD  
PAUL BYRON PATTAK  
PAOLO RICCI, PhD  
IRA RUTBERG  
BEN SHEPPARD, PhD  
SORIN STRAJA, PhD  
RONALD USCINSKI, M.D., FACS  
DUMINDA WIJESEKERA, PhD  
THOMAS WINGFIELD, ESQ.



# Annual Terrorism Review

## And Release of Special Report on Maghreb and Sahel Terrorism

On January 29, 2010, the **International Center for Terrorism Studies (ICTS)** kicked off its annual terrorism review event with a probing question from moderator Michelle Van Cleave, former head of US counterintelligence. Van Cleave asked, “Are the threats that we face more in the nature of criminal acts, or more in the nature of war?” Her remarks set the stage for a provocative discussion at the event,



“Terrorism: Review of 2009 and Outlook for 2010,” which was held at the Brookings Institution. Panelists included former Assistant Director of Central Intelligence Charles Allen, Ambassador Bob Godec of the State Department’s counterterrorism division, BGen. David Reist, USMC (Ret.) of the Potomac Institute, and Angelos Pangratis of the European Union delegation to the US. Potomac Institute CEO Michael Swetnam

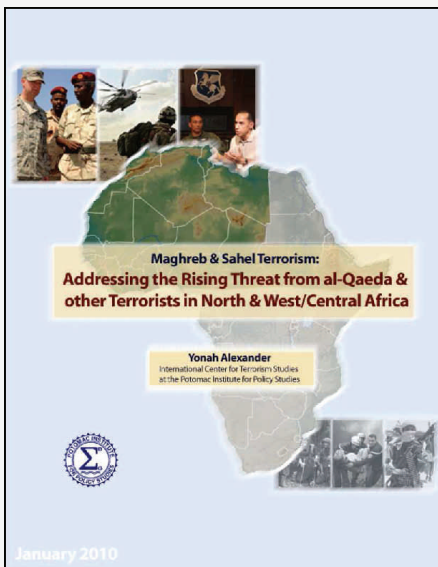
offered opening remarks and ICTS Director Prof. Yonah Alexander provided closing remarks. The program was well attended and covered by the Associated Press and Voice of America, among others.

In response to Van Cleave’s question, panelists concurred that classifying terrorist attacks

as either criminal acts or acts of war presents many difficulties. As BGen. Reist observed, “Criminal activity feeds off the chaos of war,” while CEO Swetnam argued that the criminal nature of terrorism should not deter the US from using war powers to fight it. Ambassador Godec spoke for the Obama administration, saying “all elements of national power must be brought to bear” to combat the threat, but conceded that the attempted jet bombing on Christmas Day proves that some front-line defenses remain dangerously inadequate. Panelists also agreed that Al Qaeda remains the single greatest terrorist threat to the US, despite efforts to weaken the organization. Allen called the terrorist group “damaged” but still dangerous, and noted that in recent years the group has altered its recruiting strategy to include westerners who are more likely to blend into the populations they seek to attack. And he offered a chilling warning: another Al Qaeda attack on the US will almost certainly occur, and could well involve chemical weapons.

Allen’s remark was just one of several sobering observations at this year’s seminar. “Tragically, the worst is yet to come,” said Prof. Alexander. “Terrorism is going to confront us for the remainder of the twenty-first century.” He added that as the sheer numbers of terrorist attacks rise, the human, economic, strategic and political costs of those attacks are multiplying. He also presented a new ICTS report, “Maghreb and Sahel Terrorism: Addressing the Rising Threat from Al Qaeda and Other Terrorists in North and West/Central Africa,” which points to that troubled area of the world as a new hotbed for radicalization and terrorist activity. The report finds that since September 11, 2001, terrorist attacks in the North and West/Central African region have risen by more than 550 percent, an alarming increase. It also points to another disturbing trend: the increasing cooperation between narco-traffickers based in Latin America and Al Qaeda in the Maghreb.

Panelists closed with urgent calls for the US and its allies to remain vigilant against terrorism and cooperate in efforts to combat it. The EU’s Pangratis noted that this is essential despite public “fatigue” with regard to terrorism warnings, saying that we must not “lower our guard.” Allen’s take: terrorists are resolved to strike again, and the US must be equally resolved to defeat them. But this is not a time for panic, he said; rather, the US must stay calm and “resilient” in the face of this threat.



January 2010

## The Center for Neurotechnology Studies: Ethics on the Frontiers of Science and Health

The Center for Neurotechnology Studies (CNS) focuses on in-depth analysis of matters at the intersection of neuroscience and technology—neurotechnology—and public policy through the exploration of ethical, legal, and social issues (ELSI) associated with



**Prof. James Giordano, PhD**

emerging neurotechnology and the applications of these developments in research, clinical, national defense and social spheres.

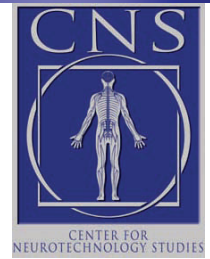
Over the past year, the Center has expanded under the direction of Prof. James Giordano, Ph.D. to become a national and international resource for information, analysis, and collaborative support in ethical analysis and policy planning. CNS has forged strong collaborative partnerships with extramural resources, including the Wellcome Centre

for Neuroethics and Uehiro Centre for Practical Philosophy at the University of Oxford, UK among others. This year's activities have specifically focused upon those neuroscientific discoveries and novel uses of neurotechnologies that have impacts in health maintenance and health risk (such as the uses of brain-machine interfaces and stem cells in brain injury, and chronic pain), national security (i.e. neuroscientific applications in cognitive training, and the use and misuse of technology as neuroweapons and forms of "neuroterrorism"), and social value(s), contexts and conduct (i.e. individual and group performance enhancement; neurocyborgization"). In this way, the CNS has coordinated, developed, and implemented collaborative efforts with other Academic Centers that have aligned and overarching interests.

This direction is consistent with the trajectory of national and international interest in neuroethics and regulatory policy. In this light, The Center has worked collaboratively with the Krasnow Institute for Advanced Studies of George Mason University, VA, and Sandia National Laboratories to develop and advance the proposed Decade of the Mind Initiative to address the scope and tenor of neuroscience and neurotechnological

advancement that is directly relevant to considerations of the human condition. Part of that Initiative, the national Neuroscience, Ethics, Legal and Social Issues Conference (NELSI), chaired by Prof. James Giordano, engages key topics in neuroethics at the national level, while the newly established Capital Consortium for Neuroethics, Legal and Social Issues (CCNELSI) addresses provocative issues at the intersection of mind science, morality and social meaning (see [www.ccnelsi.com](http://www.ccnelsi.com) for further details).

Through these efforts, the Center has increased productivity through output of scholarly papers and books, workshops, and seminars. Included among these have been symposia funded by the Nour Foundation at Oxford University and the United Nations headquarters in New York. All of these efforts have conjoined intra- and extramural research partners from academia, the military, and industrial and governmental sectors; and have been instrumental in soliciting and securing extramural funding. In sum, CNS has become a locus of expert knowledge in the field of neuroscience/neurotechnology ELSI.



### SYNESIS: A new online scientific journal makes its debut

We are proud to announce the launch of a new online journal, *Synesis: A Journal of Science, Technology, Ethics and Policy*. As defined in classical Greek, *synesis* refers to the process of critical discernment leading to informed decision-making.

*Synesis* is a semi-annual journal, with Winter/Spring and Summer/Fall issues. Each issue has a special thematic focus, an ongoing General Papers section, and Editorials, Reviews, and Commentaries. The focus of our premier issue (Winter/Spring 2010; available late February 2010) will be "Toward a Green Economy; Science, Technology and Policy in Interaction", guest edited by James Tate, PhD. For further information about the journal, please see: [www.synesisjournal.com](http://www.synesisjournal.com).

# CETO's Commercial Hunter: Campuses, USMC Fight New Threats

The Marine Corps Warfighting Lab's (MCWL) Center for Emerging Threats and Opportunities (CETO), supported by the Potomac Institute for Policy Studies, is known for providing innovative solutions to the USMC. Now, CETO is assisting the MCWL in an innovative project to discover and counter a range of potential weapons and threats that attackers may invent using readily available, off-the-shelf technology accessible online to any web-savvy individual. The program is called *Commercial Hunter*, and it takes an inspired approach: enlisting the help of young, imaginative college students to identify commercial technologies that could be used for harm, so Marines can go on the offensive today.

## A Credible Threat

In 2007, the Deputy Commandant of the Marine Corps for Combat Development and Integration (DC, CDI) tasked the Naval Research Advisory Committee (NRAC) to look at disruptive commercial technologies likely to emerge in the next three to seven years and determine their potential impact on Marine Corps tactical operations. The panel was asked to recommend a process to identify and counter these technologies. The Potomac Institute's Dr. Bill Powers was assigned to support the NRAC panel.

The panel conducted a demonstration to investigate the potential of creative people with Internet access to disrupt USMC operations, and the results were sobering. First, as the panel reported, "creative people + web access + global supply = a credible threat." What's more, it found that the Marine Corps had no effective

methods for anticipating these unconventional threats, nor access to a proactive and rapid response system. So the panel recommended that the Marine Corps form a *Commercial Hunter* cell, "...to explore and anticipate the uses of readily available commercial technologies by irregular adversaries to attack key USMC capabilities or vulnerabilities."

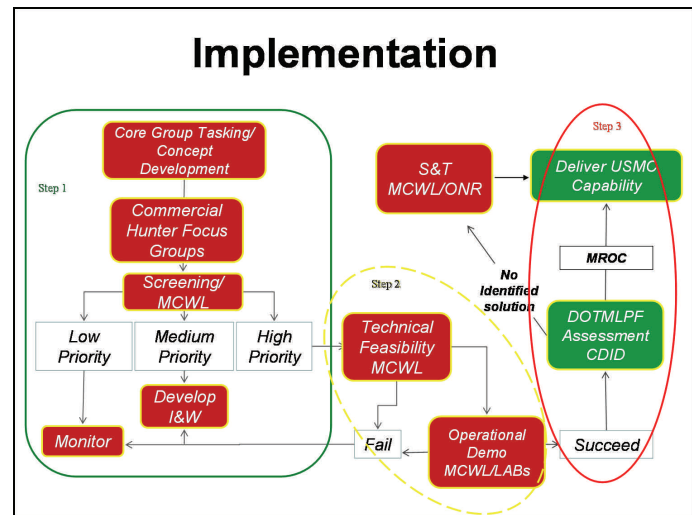
## "You're the Bad Guys"

Following the panel's assessment, the MCWL directed CETO to test the *Commercial Hunter* concept, in an experiment using teams from three different universities. Teams were assumed to have full internet access and money available for any Commercial Off the Shelf (COTS) technology, but no access to technology from non-commercial sources such as arms merchants or governments. Students were told, "you're the bad guys." They assumed the role of technical sleeper cells bent on attacks, then answered questions including: What did you do? How did you do it? Do COTS solutions and countermeasures exist for each challenge you addressed? Can you disrupt operations or harm Marines? And—did you discover any vulnerabilities that should

be addressed immediately?

The solutions generated by the teams were imaginative, seemingly effective, simple, and inexpensive. Teams also arrived at similar solutions independently of one another, indicating a high probability that terrorist cells could do the same. Based on their findings, potential threats were prioritized for action.

Since then, CETO's Dr. Bill Powers and Jay D. Walker, with Mac McKinney from the MCWL, have conducted two Commercial Technology Assessments (CTA) using students from Pennsylvania State University, The University of North Carolina – Charlotte, The Georgia Institute of Technology, Southern Methodist University, and Jackson State University.



These CTAs further confirmed the results of the NRAC panel and the earlier exercise. The MCWL further enhanced the process envisioned by the NRAC panel by consulting operating force commanders to determine their priorities and concerns—"what keeps them awake at night."

(Commercial Hunter cont'd on page 7)

**"...creative people + web access + global supply = a credible threat."**



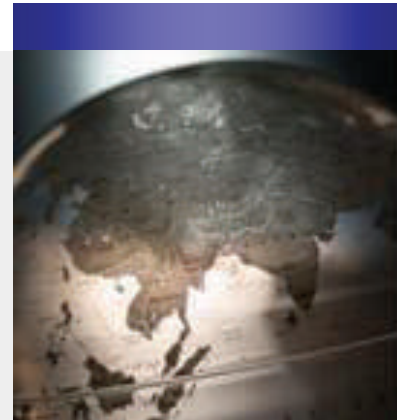
## CETO's Commercial Hunter

(continued)

### Foiling Future Threats

With internet access penetrating more and more societies around the globe, the availability of COTS threats will continue to expand into the remotest and least developed parts of the world. *Commercial Hunter* has obvious implications for education and training, and training should include this new element of technological capability. Recognizing this imperative, the MCWL has funded *Commercial Hunter* as a program in the 2010 O&M budget. The next steps, which are planned for early CY 2010, include funding for prototype construction and testing of a rapid fielding process. Additionally, MCWL is seeking to establish a five-year contract with select research universities, with the goal of conducting a CTA in the spring and autumn of each year.

*Commercial Hunter* promises to provide a creative methodology for discovering potential threats to Marines. CETO is proud to be part of a process that is not only truly innovative, but will ultimately save lives.



## New Name, Fresh Focus for Institute's Health Policy Center

On November 1, 2009, The Potomac Institute for Policy Studies' National Security Health Policy Center (NSHPC) became the Center for Health Policy & Preparedness (CHPP). More than an exercise in semantics, the new name reflects a fundamental shift toward addressing the essential components of national health security. Current research projects include the structure of the uniformed Public Health Service, best practices in community response, and education in emergency preparedness and operational medicine. The CHPP operates under the guidance of Executive Director Donald A. Donahue, DHEd, MBA, FACHE, and Medical Director Stephen Cunnion, MD, PhD, MPH.

The Institute's original health policy center, the NSHPC, was formed back in 2000 to examine how existing, new, or proposed legislation, policies, and procedures impact the ability of the United States government to maintain national security while preventing and responding to a growing number of health threats. The establishment of NSHPC proved timely, as the nation witnessed a modern act of bioterrorism with deadly consequences – the mailing of anthrax-laden envelopes that sickened dozens and killed five – barely a year later.

The ensuing years saw NSHPC examine issues of national security that included a study for the Centers for Disease Control and Prevention looking at the psychosocial aspects of the SARS outbreak, the public's response to bioterrorism and how it would be influenced by containment and treatment, development of a precautions poster for H5N1 influenza on behalf of National Defense University, and policies concerning communicable diseases and the border between Mexico and the United States.

Now, as health policy studies enter a second decade at the Institute, we acknowledge that health threats know no jurisdictional boundaries, and US health policy and delivery must recognize and respond to this reality. From novel strains, to naturally occurring outbreaks, to intentional acts of bioterrorism, disease and illness threaten to undermine the functions of government, the military, and commerce. Each is a critical component of the national infrastructure, reliant on the other two for continuing viability.



**Donald A. Donahue, DHEd**

(Fresh Focus for CHPP cont'd on page 8)



As a result, the CHPP works to enhance the operational medical capabilities of the military, other federal providers, and the nation's greater healthcare infrastructure. We recognize that every disaster has a human component, which must not be overlooked in policies and planning. From

analysis of statutes, to development of practice, to program implementation, the CHPP links preeminent experts, academic resources, and operational experience into a robust resource for promoting policy and operational initiatives that will make us healthier and safer in the years ahead.

## Welcome

The Institute has welcomed several new employees in the last year, including: Harry Avig, JD Canty, Colin Dillon, Bob Hummel, Laurie Kinney, Gary Montgomery, Amy O'Leary, Anthony Regner, David Reist, Justin Rossi, Ritch Rodebaugh, and Michael Woodman.

## New CEEE Holds First Event Workshop Focuses on "Green Economy"



James Tate, Jr., PhD

The Potomac Institute for Policy Studies' new Center for Environmental Economics and Ethics (CEEE) played host on January 20 to a workshop in conjunction with the National Council on Science and the Environment's

"Green Economy" conference. The Workshop was entitled "Alternatives to Neoclassical Economics for Business and National Security," and featured a panel of experts in environmental and economics disciplines. The program was chaired and organized by James Tate. Jr., PhD, director of the CEEE.

The Center is also pleased to welcome Richard Margrave, PhD, as a Fellow. Dr. Margrave is an economist and a senior policy and communications professional. He is President of Margrave Communications Ltd, London, UK.



Potomac Institute for Policy Studies  
901 N. Stuart Street, Suite 200  
Arlington, Virginia 22203  
Phone: 703.525.0770  
Fax: 703.525.0299  
www.potomacinstitute.org

Mailing Address Line 1  
Mailing Address Line 2  
Mailing Address Line 3  
Mailing Address Line 4  
Mailing Address Line 5

PLEASE  
PLACE  
STAMP  
HERE

About the Institute

The Potomac Institute for Policy Studies is an independent, 501(c)(3), not-for-profit public policy research institute. The Institute identifies and aggressively shepherds discussion on key science and technology issues facing our society. From these discussions and forums, we develop meaningful science and technology policy options and ensure their implementation at the intersection of business and government. We fiercely maintain objectivity. We are independent of any government entity or agency. We seek extensive and diverse collaboration with industry, academia and government. We focus on policy implications of science and technology; science and technology forecasting and trends; terrorism and asymmetry; national health policies; emerging threats and opportunities; national security; and ethical, legal and social issues in new technology.