

The Global Innovation and Strategy Center at the University of Nebraska



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By KEVIN WILLIAMS

The terrorist attacks on September 11, 2001, clearly demonstrated that adversaries do not distinguish between America's military, commercial, and civilian interests. The logical response to the attacks was to combine the Nation's diverse experiences and intellects to seek answers to tough questions. Not long after 9/11, business leaders came together with their military and government counterparts in a relationship called the Partnership to Defeat Terrorism in order to look at issues involving the security and safety of American interests at home and abroad. The Global Innovation and Strategy Center (GISC) at U.S. Strategic Command (USSTRATCOM) gives the Partnership to Defeat Terrorism (now called Partnership Group) a permanent home along with two other groups, Innovation and Strategy.

The Partnership Group is made up of a core of subject matter experts who bring in the best and brightest thinkers and problem-solvers to address specific problems. Currently, the Partnership Group has experts on finance,

academia, transportation, information networks, and the media. The Innovation Group, which also has its roots in 9/11, delivers technological solutions through contacts with traditional Department of Defense (DOD) organizations, as well as industry and academia. The Strategy Group builds teams of world-class experts to facilitate creative thinking and to deliver new strategies and courses of action. Together, the Partnership, Innovation, and Strategy Groups combine in a collaborative environment for solving difficult problems for USSTRATCOM and other customers.

The GISC officially opened its office space in September 2006. Located on a state university campus, it is far from Washington, and both military and civilian staff members work in business casual attire. While the building itself is a 21st-century, secure facility, it has a decidedly non-Pentagon feel. It features open collaborative spaces with comfortable chairs and easy computer access to facilitate informal and extemporaneous exchanges. The look is modern and commercial rather than DOD standard issue.

What is unusual about USSTRATCOM's new "solution incubator" is the effort under way to broaden the sphere of discovery. In addition to existing time-tested sources, the GISC is tapping alternate networks of academic and private sector expertise to find nontraditional solutions to some of the military's most difficult and sensitive problems.

Leaders in private industry generally recognize one of the major obstacles to innovation as slow development time. Similar to rapidly changing consumer demands compelling high-speed product development, the current international security environment requires rapid solutions. Consider the improvisational speed of improvised explosive device design changes, terror tactics, and adversary technological advances. One of the GISC's top priorities is improving the ability to adapt and change with the fast pace of today's world. Just as USSTRATCOM is transforming command and control, network-enabled operations, and intelligence, surveillance, and reconnaissance, the GISC is brokering partnerships for new ideas to support the command's ability to accomplish its missions by tackling problems in ways never thought of before.

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The GISC mission requires a willingness to take risks with resources and time to create innovative approaches. This rapid-solution method, coupled with an incubator-like model, makes the GISC unique. The business model involves experts swarming around each problem. After a short turnaround time, GISC recommendations, products, and solutions go back to USSTRATCOM or other customers for implementation or further development. Successful transition of great ideas equals victory.

The problems taken on by 36 GISC staffers are directly linked to USSTRATCOM's diverse global mission set. The work equation is simple: innovation equals the sum of creative thinking plus a rapid, nontraditional problem-to-solution process. This concept rests on two modes of thought encouraged within the GISC. The first is a combination of unbounded imaginative thinking and openness to ideas regardless of the source. The second is rigorous critical and analytic thinking, to include questioning assumptions and prevailing wisdom. The result is an ability to choose and act on the best ideas.

The GISC puts this concept into practice by creating a work environment that breaks down stovepipes and fosters an innovative corporate culture. This approach not only allows for but also rewards cross-functional and integrative thinking by every GISC employee, regardless of position or rank. GISC initiatives include an internship program

for exceptional graduate and undergraduate students that began in January 2007. This program is designed as a collaborative and multidisciplinary team effort that draws on in-depth research and intellectual exchanges between student interns, GISC mentors, and subject matter experts from academia and the private sector to provide a fresh look at some of the military's toughest problems.

The GISC has been operational for less than a year but has already completed a number of projects, including assessing the vulnerability of electrical grids, evaluating distributed ground network security, examining nuclear counterproliferation measures, and developing a machine-to-machine

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target identification processing capability to enhance maritime domain awareness.

The Center's unclassified work on public health surveillance supports USSTRATCOM's mission to combat weapons of mass destruction—specifically biological threats. It also illustrates the GISC partnership approach to problem-solving. At the request of the Centers for Disease Control (CDC), for instance, a GISC team set out to

find a way to enhance detection, surveillance, and situational awareness of catastrophic public health emergencies, such as a bioterror attack or an avian flu-like infectious disease pandemic. After bringing together computer science professors, data visualization specialists, physicians with expertise in public health and infectious disease outbreak, commercial transportation companies, local health officials, school districts, and medical test laboratories, the team identified a research and development gap between pure predictive and identity-based surveillance models and tools. In just 90 days, the GISC-led collaborative team produced an operational, dynamic, Web-based prototype that integrates real-time data feeds of symptomatic indicators (for example, medical lab tests, veterinary illness reports, emergency medical technicians, and physician reports) with identity-based indicators (for example, unusual patterns in adult workforce absenteeism). The model, along with a statewide vaccination distribution plan developed by a GISC team, industry partners, and the Nebraska National Guard, has been enthusiastically received by the CDC, as well as the lieutenant governor and chief medical officials of the state of Nebraska.

The GISC welcomes suggestions, ideas, and tasks—along with critiques and complaints—because America's security demands that we combine military, commercial, and academic brainpower. All of us together are smarter than any one of us alone. **JFQ**

General Cartwright presides at opening of the Global Innovation and Strategy Center



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