



# VANGUARD

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## South Korea to Develop EMP Weapon

*By Mead Treadwell and Jeremy Thompson, editors*

Korea's state-funded Agency for Defense Development (ADD) is working to develop electromagnetic pulse (EMP) and high-power microwave (HMP) weapons by 2015. That's according to an article by Jung Sung-ki in the Korea Times filed Jan. 18, citing Korea's Yonhap News Agency.

"EMP and HMP bombs offer a significant capability against electronic equipment susceptible to damage by transient power surges," the article notes. "For example, an EMP attack, generated by a very short, intense energy pulse or high-altitude nuclear blast, is known to be capable of crippling an enemy's command-and-control and communications systems, and anti-aircraft radar systems... Also known as the 'E-bomb,' the HPM is designed to zap electronics, scramble computer programs and fry communications links. This type of electromagnetic pulse weapon is a warhead that, when explodes, emits a high-energy pulse that will fuse electrical equipment within a given range. E-bombs can unleash in a flash as much electrical power, two billion watts or more, equal to the electricity the Hoover Dam generates over 24 hours."

While some have dismissed the EMP threat to the United States, recent reports by the congressionally created Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack, <http://www.empcommission.org>, show the United States to be vulnerable to EMP. The Commission has urged greater planning by the Department of Homeland Security, states and localities against this threat. Korea is an ally of the United States. *Link to article: [Seoul to deploy bunker-busting bomb by 2012](#)*

## Missile Defense Program in Alaska Boosts State's Economy Directly, and the Nation's Economy Overall

*By Mead Treadwell and Jeremy Thompson, editors*

A recent study by Hans Geier at the University of Alaska Fairbanks measures the economic impact that the Ground-based Midcourse Defense (GMD) Program is having on the local Alaska economy. The study, entitled [Economic Impact of the Boeing Ground-based Midcourse Defense \(GMD\) Program: Alaska Operations 2007](#), surveyed four regions of the state and estimated the impact of GMD on both on the local rural economies and the gross domestic product of Alaska. The results

make a compelling case that while research and development of GMD occurs in other parts of the United States, construction and operations is providing a boost to Alaska's still-developing economy.

Economic impact was classified into two categories. The first kind of impact stems from expenditures by the GMD program itself: direct, indirect and induced. The direct effects are the changes in the industries associated with GMD expenditures. The indirect effects are changes in inter-industry purchases as they respond to the new demands of GMD-affected industries. Induced effects reflect the changes in spending from households as income increases or decreases due to the change in spending by Boeing, the prime contractor for the GMD program and sponsor of the study. All effects combined showed the defense program boosted the state's economy by \$246 million.

The second kind of impact considers household earnings income, tax revenue generated for state and local government, property and sales. The GMD program directly employs 323 people. For each employee, the study finds that an additional 1.2 jobs are created, giving a total of 716 jobs directly and indirectly created. The cumulative total of household earnings based on the factors of payroll and benefits was \$71.8 million, directly and indirectly, with many of the jobs located in areas where few employment opportunities exist. These jobs and income generated \$9.6 million in state and local tax revenue and \$19.4 million for the federal government.

In addition to the role it plays in national defense, the GMD Program is one of Alaska's largest construction projects with economic effects which trickle down to the local level in some of the most isolated rural economies in the world. Ft. Greely, where interceptors are based, was set to be closed entirely before the GMD site decision was made in the Clinton Administration. The Aleutian port of Adak, home port of the GMD's X-Band radar, is one of the most remote places in America, and the local economy had taken a dive after a U.S. Navy base had closed there. Remote Kodiak, with a state-owned launch facility that serves as part of the test-bed for both GMD and other elements of the layered national system – which envisions sea, air, and ultimately space-based defenses – is also benefitting from GMD construction in Alaska.

At the Institute of the North's Security and Defense Program, we seldom discuss the economic impact of missile defense construction. The right policy is to defend the homeland against any threat using the best means from the best location. The wrong policy is to support missile defense as a project for creating jobs. Alaskans simply called for a missile defense that would defend all 50 states through a legislative resolution in 1999. The resolution was first introduced in the state legislature in 1997, years before it was known that Alaska might host one layer of the nation's missile defense system. An effective missile defense is essential to deter missile attack on the United States, its forward forces, our friends and allies, especially from "asymmetric" or anonymous sources – states like North Korea, Iran, or from other rogue sources who might launch from ships at sea with no known "national" return address for a retaliatory response. Whatever the economic impact in Alaska, Alabama, California, Hawaii or Colorado, the ultimate impact is to provide an umbrella for the entire U.S. economy.

## Jeremy Thompson Joins the Institute of the North

Jeremy Thompson has joined the staff of Institute of the North as a research associate. Previously a legislative aide in the Alaska Legislature, he brings extensive experience with state policy to the institute. Jeremy will be working in the Security and Defense Program.

# From the Wires this Week

## Emergency Management/Homeland Security

**Senate confirms Arizona Governor Janet Napolitano as DHS Secretary** (Boston Globe, 01/21/09)

[http://www.boston.com/news/nation/articles/2009/01/21/senate\\_vote\\_confirms\\_six\\_cabinet\\_nominees/](http://www.boston.com/news/nation/articles/2009/01/21/senate_vote_confirms_six_cabinet_nominees/)

Napolitano was confirmed with six others on Tuesday after the inauguration. During the hearing before the Senate Committee on Homeland Security and Government Affairs, the concerns expressed by the chair and ranking member included fears that FEMA would be shifted to another department, and their frustrations with the DHS secretary having to report to too many Congressional committees. Since the formation of DHS, the secretary has been responsible for testifying before dozens of committees. *Find the audio of the hearing and written statements of the chair and ranking member [here](#).*

**White House posts new homeland security agenda** (The White House, 01/20/09)

[http://www.whitehouse.gov/agenda/homeland\\_security/](http://www.whitehouse.gov/agenda/homeland_security/)

President Obama's homeland security agenda includes a long list of goals including defeating terrorism, protecting critical infrastructure, increasing cyber-security, and protection against bio-attacks. Missile Defense strategy is not mentioned. However the agenda says DHS will seek to make the federal government a better partner to states and localities by listening to state and local priorities.

**DRC to provide training assistance to DHS** (Washington Technology, 01/21/09)

<http://washingtontechnology.com/articles/2009/01/21/drc-to-provide-training-to-dhs.aspx>

Dynamics Research Corp. will provide specialized training services to the Homeland Security Department under a five-year contract that has an initial value of \$11.5 million. Under the terms of the contract, DRC will develop functional Web-based training courseware and other training services to meet the training and simulation needs of DHS' Office of Customs and Border Protection Air and Marine.

**Company to survey school security in Northeast United States** (UPI, 01/20/09)

[http://www.upi.com/Security\\_Industry/2009/01/20/Wren\\_to\\_conduct\\_survey\\_in\\_Northeast/UPI-43031232489902/](http://www.upi.com/Security_Industry/2009/01/20/Wren_to_conduct_survey_in_Northeast/UPI-43031232489902/)

Video surveillance solutions developer Wren announced plans to conduct a research project on school security in the Northeast United States. U.S. company Wren says it will survey K-12 schools in the Northeast United States and evaluate the emergency preparedness capabilities and readiness to counter potential threats to students, staff and teachers. The study, expected to be conducted with support from the National Association of School Resource Officers, marks the fourth school study in the company's research series since 2007.

**School receives homeland security grant** (EdmondSun.com, 01/19/09)

[http://www.edmondsun.com/local/local\\_story\\_019234136.html](http://www.edmondsun.com/local/local_story_019234136.html)

Edmond is one of 10 state public school districts awarded a \$25,000 grant from the Oklahoma Office of Homeland Security to help improve school security. The grant, written primarily by District Safety Coordinator Jim Rothrock, has been funded by the U.S. Department of Homeland Security.

**DHS offers social media to boost preparedness** (Federal Computer Week, 01/16/09)

<http://fcw.com/Articles/2009/01/16/DHS-Emergency-Tools-Social-Media.aspx>

As part of a public awareness effort by DHS and the Advertising Council, the Ready Campaign officials announced a new Web page named "Be Prepared." The page features an interactive widget that provides updates on emergency situations, an instructional video and news feeds via Twitter, the micro-blogging service, under the name Readydotgov, DHS said in a news release. The department also said it will also offer an online tool that allows users to create personalized emergency plans for their families to use. Users are encouraged to submit online videos to the campaign's video blog. Officials said outreach campaign will also be conducted on social networking sites and blogs.

**Wireless network for emergency workers is canceled** (New York Times, 01/16/09)

<http://www.nytimes.com/2009/01/16/nyregion/16wireless.html>

Plans for New York's statewide wireless network for emergency workers have been canceled, after years of delays and numerous technological snags. The state had a \$2.1 billion contract with M/A-COM, a subsidiary of Tyco Electronics, which was chosen in 2005 to build the network. It was meant to link workers who would be the first to respond to an emergency. The termination of the contract came after months of growing tension between the state and the company, which had missed several deadlines to repair its network in two counties upstate, where trials were under way.

**Gov. Martin O'Malley pledges to streamline Maryland's homeland security structure** (Capital News Service, 01/15/09)

[http://www.journalism.umd.edu/cns/wire/2009-editions/01-January-editions/090115-Thursday/SecurityAssessment\\_CNS-UMCP.html](http://www.journalism.umd.edu/cns/wire/2009-editions/01-January-editions/090115-Thursday/SecurityAssessment_CNS-UMCP.html)

Gov. Martin O'Malley pledged to streamline Maryland's homeland security structure in response to a report assessing the state's emergency preparedness. O'Malley said he will introduce legislation formalizing a direct line between himself and the director of the Maryland Emergency Management Agency, which is responsible for coordinating the state's responses to major emergencies. The move is a key step toward addressing a recommendation that the state clarify its authority structure.

**Federal Coordinator Douglas O'Dell announces more than 56,000 hits in past five months on Transparency Initiative web tool** (Department of Homeland Security, 01/15/09)

[http://www.dhs.gov/xnews/releases/pr\\_1232058330155.shtm](http://www.dhs.gov/xnews/releases/pr_1232058330155.shtm)

General Douglas O'Dell, Federal Coordinator for Gulf Coast Rebuilding, announced there have been more than 56,000 hits since mid-August on the Transparency Initiative Web Tool, first unveiled by the Office of the Federal Coordinator for Gulf Coast Rebuilding (OFC) and the Federal Emergency Management Agency (FEMA) in early 2008. The Web tool is designed to infuse greater accountability and transparency into the public assistance process and to empower local decision makers and residents with invaluable information on rebuilding critical sectors of their local communities.

**Upgraded biometric technology facilitates visitors' entry to the United States** (Department of Homeland Security, 01/15/09)

[http://www.dhs.gov/xnews/releases/pr\\_1232056782879.shtm](http://www.dhs.gov/xnews/releases/pr_1232056782879.shtm)

The U.S. Department of Homeland Security (DHS) announced that upgraded biometric technology is in place at major U.S. ports of entry, and most international visitors should expect to use the new technology when they enter the United States. DHS's US-VISIT program began upgrading its

biometric technology from a two- to a 10-fingerprint collection standard in 2007 to make the entry process faster and more accurate, enabling DHS officials to focus their attention on people who may pose a risk to the United States.

## Communications and Information Security

**California demonstrates interoperability of damage assessment data** (Government Technology, 01/20/09)

[http://www.govtech.com/gt/articles/589102?utm\\_source=rss&utm\\_medium=link](http://www.govtech.com/gt/articles/589102?utm_source=rss&utm_medium=link)

A large-scale natural or man-made disaster in California would put tremendous stress and extreme demands on the ability of governments and their building code agencies throughout the affected region to respond to and recover from such an event. That stress and could be greatly reduced with mobile safety/damage assessment technology, according to a report released Dec. 14, 2008, by a partnership between the Alliance for Building Regulatory Reform in the Digital Age, the California Office of Emergency Services (OES) and the California Office of Homeland Security.

**Feds shore up net security** (PC World, 01/19/09)

[http://www.pcworld.com/article/157909/feds\\_net\\_security.html?tk=rss\\_news](http://www.pcworld.com/article/157909/feds_net_security.html?tk=rss_news)

The U.S. federal government is accelerating its efforts to secure the Internet's routing system, with plans this year for the Department of Homeland Security to quadruple its investment in research aimed at adding digital signatures to router communications. DHS says its routing security effort will prevent routing hijack attacks as well as accidental misconfigurations of routing data.

**Cyber-attack operations near** (Aviation Week, 01/18/09)

<http://www.aviationweek.com/aw/generic/story.jsp?id=news/aw0112909p1.xml&headline=Cyber-Attack%20Operations%20Near&channel=awst>

Continuing development of cyber-weapons and experimentation with digital warfare are triggering optimism and the occasional operational U-turn. In a few years, the U.S. Army, Navy and Marine Corps expect to be delivering airborne electronic fires and cyber-attacks for ground troops with a fusion of radio battalions, EA-6B Prowlers, EA-18G Growlers and a range of UAVs.

## Training and Education

**DARPA solicits junior faculty proposals** (UPI, 01/19/09)

[http://www.upi.com/Security\\_Industry/2009/01/19/DARPA\\_solicits\\_junior\\_faculty\\_proposals/UPI-17381232406413/](http://www.upi.com/Security_Industry/2009/01/19/DARPA_solicits_junior_faculty_proposals/UPI-17381232406413/)

The U.S. Defense Department's Defense Advanced Research Projects Agency is soliciting research proposals from junior faculty in academia. DARPA announced it is looking for research proposals from junior faculty members at U.S. academic institutions that will potentially advance the agency's Microsystems Technology Office and Defense Sciences Office. The DARPA solicitation is part of its Young Faculty Award program. Officials say the YFA is part of an initiative to identify and engage junior faculty and support them with high-impact funding for research to advance Defense Department needs.

## National Guard

**Air National Guard contracts with MSIAC** (UPI, 01/20/09)

[http://www.upi.com/Security\\_Industry/2009/01/20/MSIAC\\_contracted\\_for\\_software\\_support/UPI-57711232485019/](http://www.upi.com/Security_Industry/2009/01/20/MSIAC_contracted_for_software_support/UPI-57711232485019/)

The U.S. Air National Guard has contracted the Modeling and Simulation Information Analysis Center for software support. MSIAC is operated by U.S. company Alion Science and Technology. As part of the \$1.9 million task order, MSIAC will provide Air National Guard's Expert Common Immersive Theater Environment software with modeling and simulation support services. XCITE is the software technology supporting aircrew members and soldier training initiatives as part of the Air National Guard Distributed Training Operations Center.

**Guard members flow in for inauguration support; first stop – in-processing** (National Guard Bureau, 01/16/09)

<http://www.ngb.army.mil/news/archives/2009/01/011809-Inprocess.aspx>

Thousands of Guard members from around the country are flowing into the nation's capital to support the inauguration. But before they start making it a safe and memorable event for everyone in attendance, they must in-process at one of three sites in the area, including the 113th Fighter Wing, a unit with the District of Columbia Air National Guard located here.

## Missile Defense and Satellite Technology

**Viewpoint: Obama should boost armed services' role in missile defense** (UPI, 01/20/09)

[http://www.upi.com/Security\\_Industry/2009/01/20/Obama\\_should\\_boost\\_armed\\_services\\_role\\_in\\_missile\\_defense/UPI-31271232464122/](http://www.upi.com/Security_Industry/2009/01/20/Obama_should_boost_armed_services_role_in_missile_defense/UPI-31271232464122/)

Newly inaugurated U.S. President Barack Obama should approve a plan to expand the role of the U.S. armed services in ballistic missile defense. Obama so far has been silent regarding the proper role of the services in ballistic missile defense. However, as missile defense systems mature, they should be put into the hands of the military services that will operate them.

**Early agenda may affect missile defense systems in Colorado** (Rocky Mountain News, 01/20/09)

<http://www.rockymountainnews.com/news/2009/jan/20/early-agenda-to-affect-state/>

Some are watching to see if budget priorities shift in the Pentagon, potentially affecting Colorado's U.S. Air Force facilities, defense contractors or national missile defense programs that are based in the state. The new administration will have to decide the future of the missile-defense command center buried deep inside the mountains southwest of Colorado Springs. Many functions are being moved to Air Force bases, but state lawmakers are hoping to preserve the facility long-term.

**Viewpoint: BMD requires simultaneous deployment and testing** (UPI, 01/19/09)

[http://www.upi.com/Security\\_Industry/2009/01/19/BMD\\_requires\\_simultaneous\\_deployment\\_and\\_testing/UPI-54981232399902/](http://www.upi.com/Security_Industry/2009/01/19/BMD_requires_simultaneous_deployment_and_testing/UPI-54981232399902/)

The rigorous testing program that U.S. President-elect Barack Obama has called for cannot follow traditional acquisition procedures because ballistic missile defenses constitute a complex system of systems. The same is true for ballistic missile defense. It must proceed by incremental fielding and testing steps that take place concurrently. Further, any attempt to use the testing regime to demonstrate a perfect defense will give potential enemies more time to exploit current U.S. vulnerabilities.

## Energy Security

**Federal bureaucracy holds back the removing of bottlenecks in transmission grid** (Reuters, 01/21/09)  
<http://uk.reuters.com/article/behindTheScenes/idUKTRE50K5P720090121?pageNumber=3&virtualBrandChannel=0&sp=true>

Those who seek to expand use of wind and solar power are finding that “bottlenecks” exist in transmission grid, which impede development. Inconvenience aside, bottlenecks pose a serious security risk in power infrastructure. The article cites federal bureaucracy as one of the chief hurdles to mitigating these vulnerabilities, particularly the problem with obtaining permits over federal lands.

## Transportation Security

**Navy, Coast Guard join to combat piracy** (U.S. Department of Defense, 01/20/09)  
<http://www.defenselink.mil/news/newsarticle.aspx?id=52749>

Navy and Coast Guard boarding teams are working together to ensure safe operations in the Gulf of Aden, Arabian Sea, Red Sea and Indian Ocean as part of Combined Task Force 151, a multinational counter-piracy task force. Coast Guard and Navy teams board suspect vessels to detect, deter and disrupt piracy activities. Team members attend daily training in boarding policy, maritime laws, evidence handling, handcuffing, defensive tactics and searches. Additionally, detachment personnel instruct the Navy VBSS team in boarding procedures, evidence-package preparation and safe and humane treatment of suspects.

**Security upgraded for ships arriving from Venezuela** (The Journal of Commerce Online, 01/20/09)  
<http://www.joc.com/articles/news.asp?section=ocean&sid=47619>

As of Jan. 23 the U.S. Coast Guard is imposing conditions of entry on vessels arriving from Venezuela. Under the Maritime Transportation Security Act of 2002, Homeland Security can impose conditions of entry for vessels arriving from ports that are not maintaining effective anti-terrorism measures.

**TSA names new security head for West Texas** (UPI, 01/16/09)

[http://www.upi.com/Emerging\\_Threats/2009/01/16/TSA\\_names\\_new\\_security\\_head\\_for\\_West\\_Texas/UPI-33411232140437/](http://www.upi.com/Emerging_Threats/2009/01/16/TSA_names_new_security_head_for_West_Texas/UPI-33411232140437/)

The Transportation Security Administration announced the appointment of a new director of security for the West Texas region. TSA officials say 30-year Air Force veteran John Sides will become the new federal security director for the West Texas region. Sides, who since 2002 was head of security at Tucson International Airport, will now direct TSA security operations at the three international and two regional airports in the West Texas region.

## Announcements

### To receive an EMP briefing

The Institute of the North and the Claremont Institute in Claremont, California support state legislators and emergency management groups by providing briefings on electromagnetic pulse

(EMP) attack scenarios and preparedness. If you would like your committee or organization to receive one of these briefings, please contact [Jeremy Thompson](#) by email or call 907.771.2446.

### **To receive a copy of *Missile Defense and the Role of the States***

In February 2007, the Institute of the North and the Claremont Institute published a report on *Missile Defense and the Role of the States*, a survey of Adjutants General on questions regarding missile defense and electromagnetic pulse. To receive a hard copy of the report, please contact [Jeremy Thompson](#). You can also view the report online at: <http://www.institutenorth.org/servlet/download?id=304>.

### **To view the IWG report**

The Institute of the North's Defense and Security program is a member of the Independent Working Group on Missile Defense, the Space Relationship, & the Twenty-First Century, a non-partisan group of defense experts who meet regularly to discuss issues and projects related to missile defense. To view the 2007 report online, please visit: <http://www.missilethreat.com/iwgreport/pageID.163/default.asp>.

### **To submit material**

We are always looking for well-written editorials on the impact of national security at the state and local level. If you would like to submit an editorial for publication in the Vanguard newsletter, please forward factual and relevant articles of 500-750 words in length to the [Institute](#).

### **The Vanguard online**

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### **About the program**

The Security and Defense program at the Institute of the North conducts research and educates policymakers on strategic issues relating to the defense of the United States that particularly concern decision makers in Alaska and at the state and local level throughout the nation.

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*The Institute of the North, based in Anchorage, Alaska, is a non-profit educational and research organization founded in 1994 by former Secretary of the Interior and twice Governor of Alaska Walter J. Hickel, focusing on strategic and natural resource issues.*

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