

U.S. Coast Guard (Mike Hvozda)

hile the Department of Defense has ample manpower and equipment for both its overseas operational needs and any likely domestic response, its organizational structure and lack of integration with other domestic preparedness and response agencies may have the unintended consequence of an ineffective mass casualty reaction in the homeland. As the response to Hurricane Katrina demonstrated, there are problems in local, state, and Federal responses and in communicating needs and expectations between the levels of government. When Katrina struck the Gulf Coast, once a military response was appropriately requested and authorized, National Guard and Federal military forces were on the scene within hours, evacuating critically ill patients by helicopter from Charity and Tulane Hospitals and providing other life-saving support.

16

Although the Department of Defense (DOD) is not a first responder, it earned good grades for its capabilities when the local first responder infrastructure was overwhelmed. Katrina exposed larger systemic problems, however, with local, state, Federal, and military coordination—problems that would be more apparent and have far more negative consequences in a terrorist attack on multiple cities. The jumbled medical response when there were relatively few serious injuries as a direct result of the hurricane shows that there is much to be done to prepare for a terrorist incident that suddenly produces hundreds or thousands of casualties.

Katrina demonstrated the need for effective requirements-based planning for such an emergency in the homeland. DOD planning, training, and exercising expertise has much to offer civilian emergency preparedness efforts and should play a proactive role prior to an incident. However, military downsizing,

outsourcing of installation support, and tighter integration within local communities are increasing the dependence of military bases or posts on local civilian infrastructure. DOD accepts some operational risk by depending on elements outside its control, and it would be prudent to get actively involved in comprehensive planning and preparedness, both to reduce DOD's own vulnerabilities and to improve homeland security.

In most domestic incidents, the military is prepared to respond to calls for assistance with all the resources at its disposal. Some have called this support model "you call us when you need us and we'll do all we can,"1 but this idea has two flaws. First, a nuclear, biological, chemical, or radiological terrorist attack may call for the immediate deployment of capabilities that no local or state government can afford to maintain. Second, there is a built-in response delay as requests for assistance flow from local to state to Federal officials. At each level, units and resources must be identified that meet the need, equipment must be issued, and transportation must be arranged. The result is usually like pick-up

 $\label{lem:colonel} \textbf{Colonel Donald F. Thompson, USAF, is a senior research fellow in the Center for Technology and National Security Policy at the National Defense University.}$ 

JFQ / issue 40, 1st quarter 2006 ndupress.ndu.edu

basketball—an impromptu game among players who just met and play according to their own habits without strategy or coordination. This type of support also erroneously suggests that DOD has only a response role in a national medical emergency, and then only when all other resources have been exhausted. As such a resource of last resort, the department would indeed have little to offer. Deployable field hospitals take days or weeks to transport and set up, and military medical professionals would be of little benefit if they did not become engaged until 3 to 5 days into the crisis. In a true national or regional medical emergency, there would likely be such social and economic disruption that DOD resources would indeed be "too little, too late" if called on only after all other national resources were exhausted. Such are some allegations about the Federal response to Hurricane Katrina.

### **Homeland Security and Defense**

There has been a massive national emphasis on homeland security and homeland defense since the 9/11 terrorist attacks. A new Federal department has been created, Congress has appropriated billions of dollars, and industry, academia, and communities across the country have become involved. The President has declared a war on terror, and DOD has taken the fight to the enemy with Operations Enduring Freedom and Iraqi Freedom. The Department of Defense reorganized, realigned, and added elements to support the missions of homeland defense and homeland security. A new geographic combatant command, U.S. Northern Command (USNORTHCOM), was created with an area of responsibility that includes all of North America. The command puts the homeland defense missions being performed by other DOD organizations under a single command. A policy office and position for an Assistant Secretary of Defense for Homeland Defense were created. The Directorate of Military Support, the office that approved requests for military assistance to civilian authorities (usually for natural disasters), formerly located within the Office of the Secretary of the Army, was reorganized as the Joint Directorate of Military Support, elevated in stature with flag officer leadership, and moved to the Operations Directorate of the Joint Staff.

DOD is going to great lengths to demarcate the homeland defense and homeland security missions, partly to make it clear that

the military has no desire to take on civilian responsibilities. The department is the lead Federal agency for homeland defense tasks, described in the USNORTHCOM mission statement as conducting "operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories, and interests within the assigned area of responsibility." DOD's limited involvement in homeland security is carefully defined later in the statement as providing "defense support of civil authorities, including consequence management operations." In reality, apart from actual combat operations, the mission areas of homeland security and homeland defense overlap more often than not, suggesting the need for greater civil-military interaction.

network through the TRICARE Management Activity. Many military hospitals have been downsized or closed over the past 10 years, leading to an even greater dependence on civilian resources. The military has a robust occupational health and deployment health program to keep active-duty servicemembers fit to fight and to care for them while they are deployed, but the number of active-duty medics is largely limited to those needed to support this rapid deployment capability. While military residency training programs have hospitals and the associated support staff, more and more peacetime military care is provided by the civilian network. At the vast majority of installations, uniformed military medics provide primary care for

### there is a built-in response delay as requests for assistance flow from local to state to Federal officials

The homeland defense and homeland security overlap is particularly obvious and difficult to address in the medical and public health areas, when a coordinated civil-military response is required in the face of an incident producing significant casualties. There is no healthcare "system" in the United States; there is instead a vast network of public and private institutions, agencies, and individuals who deliver healthcare services, many provided by local, state, and Federal authorities. Public health agencies protect the public from environmental and infectious disease threats, respond to disease outbreaks, and provide direct healthcare services to the neediest populations. Healthcare delivery services, on the other hand, are furnished by a different arrangement. Hospitals are both urban and rural and may be private for-profit, private nonprofit, or public. Actual providers—physicians, physician assistants, nurse practitioners, mental health workers, and allied healthcare workers—may be either government employees or attached to a hospital or healthcare system. More commonly, providers may operate as independent small businesses.

The DOD Military Healthcare System has physicians, nurses, and other allied personnel to meet the day-to-day needs of the active-duty force, military family members, and retirees and their beneficiaries, but it depends in large part on the civilian

healthy adults and family members, but most specialty care and almost all inpatient care come from civilian physicians and hospitals in adjacent communities.

DOD accepts some risk by depending on the civilian network. This risk may be appropriate in providing peacetime healthcare services, but it has considerable implications for a timely response to a terrorist incident within the United States that affects a DOD installation or civilian infrastructure that DOD depends on for force projection. Should terrorists attack a military installation with conventional weapons, USNORTHCOM has the responsibility and plans to bring in combat forces to protect that installation. The response to such an attack, however, would likely require that casualties be transported to civilian referral hospitals that are largely unprepared. Civilian hospitals are often filled to capacity, have few isolation beds for contagious infections, and have insufficient staff to handle a large influx of additional patients. If the attack involved the threat of biological or chemical weapons, the hospital might refuse to take contaminated or contagious casualties altogether. In such an event, USNORTHCOM would find it difficult to identify and task needed military medical support capabilities.

There are three broad areas in which DOD action might reduce this operational risk, but all involve more proactive

ndupress.ndu.edu issue 40, 1st quarter 2006 / JFQ 17

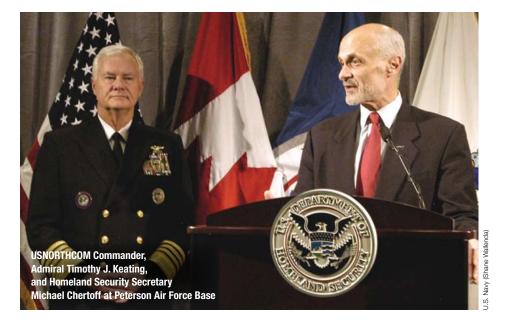
command engagement with civilian agencies and organizations: requirements-based mass casualty planning, understanding the institutional cultures of civilian partners in a regional mass casualty response, and coordinated crisis management decisionmaking. While actions in each of these areas will enhance homeland security, they are also essential to the maintenance of robust homeland defense capabilities. Over time, analysis of the local, state, and Federal response to Katrina will yield further details and insights about improving these elements of DOD-civilian collaboration. This article discusses the three major areas where DOD might reduce the operational risk of depending on the civilian network.

### **Requirements-Based Planning**

Comprehensive planning for a mass casualty response must start with defining the requirements, identifying the capabilities needed to meet them, and linking particular units or personnel to a given scenario in a specific location. Policies and procedures must be developed to task particular resources for an actual mission, pay all associated costs, and backfill the unit or personnel for the mission it was performing when tasked. Response planning that begins with capabilities puts the cart before the horse and is destined to fail.

It is difficult to predict the types and numbers of casualties from a conventional explosion, a communicable biological weapons attack, release of a chemical agent, a nuclear weapon detonation, or a radiological dispersion device. Numbers of casualties would depend on whether the explosion or release takes place indoors or outdoors, in a thickly populated area, in or near a mass transit system, or at the busiest time on a weekday. These complexities are associated with the first-order effects of the attack—the victims directly injured, exposed, or contaminated.

Complexities increase exponentially through the second- and third-order effects—the unintended consequences. People exposed to radiological material or anthrax spores could track the material on their shoes and clothes, endangering others. Those fleeing an incident area might move to a more hazardous zone. Persons exposed to a covert release of a communicable biological agent such as smallpox, plague, or influenza could depart the initial area of exposure and travel to their homes, school,



work, or around the world on commercial flights while incubating an infection. They become a risk to others and cause secondary cases as person-to-person transmission takes place.

These types of complexities, especially those that deal with how people might respond in a crisis, cause many officials to move such requirements planning into the "too hard to do" box. In actuality, however, much supportive work has been done in social network analysis and adaptive response that sheds light on likely human behaviors. The question that faces the Nation is who

the question that faces the Nation is who should integrate strategies into response plans at all levels

should identify this supportive work, test and improve solutions, and integrate strategies into response plans at all levels. From the local, state, Federal, and military perspective, this is indeed too hard to do because so much complex coordination is required.

All-inclusive answers to these and future questions must be developed in a setting that mirrors the likely response to an incident. Capabilities that are available at each level of response must be compared with the likely requirements.

*Local*: Since mass casualty response begins with local emergency medical response, hospital emergency departments,

and emergency management agencies, the capabilities in each of these sectors must be clearly described.

State: Response capabilities at the state level are often limited to National Guard resources under control of the Governor, in addition to law enforcement agencies. Few states have significant medical response resources, though public health laboratories are essential in supporting a response to a natural pandemic or a biological terrorism agent.

Federal: Capabilities of various Federal agencies are poorly defined at best, and assumptions are often made that because a particular agency has a specific capability in its day-to-day mission, that agency could provide the same capability in the event of a national disaster. As an example, according to Emergency Support Function #1 in the National Response Plan, the Department of Transportation is responsible for Federal and civil transportation support. But department officials recognize that since they often contract with private truckers, they cannot count on these carriers in an emergency that may require working in a contaminated environment.

### **Closing Capability Gaps**

As capability shortfalls are identified, authorities in response agencies at all levels must develop plans for closing these gaps. Comprehensive plans include the required capability, the point in the evolution of the crisis when it is needed, where the resource can be obtained, who must authorize the

18 JFQ / issue 40, 1st quarter 2006 ndupress.ndu.edu

request, who must approve its fulfillment, who will reimburse associated costs, how the capability will be replaced when it goes to the requesting location, and when it will be released to return home.

The best surge capacity plans obtain capabilities from neighboring areas through mutual aid compacts. These agreements are used every day as police and fire response units move across jurisdictional boundaries to meet short-term surge needs. A national agreement addresses the two most significant barriers to mutual aid: liability and reimbursement. The Emergency Management Assistance Compact, established in 1996, is administered by the National Emergency Management Association, and provides form and structure to interstate mutual aid. Response capabilities beyond fire and emergency medical services, however, often resemble the pick-up game described above; officials meet for the first time at the scene of the emergency.

Coordinated procedures and protocols for closing these gaps are rarely in place for regional and multistate mass casualty incidents because few jurisdictions have had to develop them. The hurricane-prone Atlantic and Gulf Coasts and earthquake-prone

California are exceptions, but by and large the United States is not ready for a national mass casualty response.

### **Planning Needs: Three Approaches**

National all-hazard mass casualty planning for acts of terrorism includes three primary parts, only two of which are currently being addressed. The first planning approach is local and state response planning, which varies in quality according to the community's experience and resources. For a terrorist attack, such as the 2001 anthrax letters on the East Coast, an efficient response must consist of integrated, coordinated planning between all response sectors: public health, emergency medical, fire, law enforcement, hospital-based emergency medical care, private sector healthcare delivery, local emergency management agencies, local elected officials, military installations, public and private sector businesses (which would provide food, water, utilities, communications, and transportation), volunteer organizations, schools, faith-based organizations, and the news media. Such comprehensive local planning is rare. Katrina showed that even when plans are in place, they must be promptly executed. Local leaders cannot

afford to wait for the Federal Government to provide an initial response.

The second approach is planning for a Federal response (for example, for the moment when states may approach the Federal Government through the Department of Homeland Security seeking Federal financial aid and response assets). This response may include Federal Emergency Management Agency support for New Orleans, including pharmaceutical and medical supplies from the Strategic National Stockpile, or support from the National Interagency Fire Center for annual western wildfires.

Real Federal medical resources are limited, primarily consisting of small deployable medical teams from the National Disaster Medical System. These teams are made up of several dozen volunteer medical professionals and their support staff who are federalized and deployed to a disaster site with equipment and supplies for 72 hours. There are also teams with mortuary, veterinarian, nurse, and pharmacist expertise. Planning for Federal alternate hospital facilities is under way, but integration with actual local and state response capabilities has yet to be accomplished. These facilities will provide bed space to care for nonemergency



. Air Force (Larry Holmes

ndupress.ndu.edu issue 40, 1st quarter 2006 / JFQ 19

hospitalized patients, so existing hospital space can be reserved for new, more seriously injured casualties, but Katrina showed that staffing requirements for these facilities cannot be met from Federal sources.

The third approach is planning for a national response where issues are addressed that are too big for, or beyond the jurisdiction of, state and local agencies—and beyond clear Federal control. This type of planning includes organizations and institutions that operate on the border between state and society. It includes interface with and involvement of private sector businesses, volunteer organizations, faith-based organizations, national professional societies, and academic institutions. These groups

volunteers to assist in a mass casualty response and to maintain trust in local, state, and Federal authorities.

### Federal Role in Mass Casualty Planning

The Federal Government has a leadership role in all three of the above planning approaches. Its agencies must support local and state agencies by providing principles for preparedness, goals and objectives, strategies for implementation, and opportunities for testing and exercising local plans. Networking and identifying local and state best practices are two essentials that can only be done from the national point of view, but both are currently

perhaps most critical is providing funding with strings attached to cajole local and state agencies into developing regional plans

are not part of any formal governmental structure, but they play a crucial role in society. One such group, the American Red Cross, has such national credibility and organization that it is responsible for an entire emergency support function in the National Response Plan. Other organizations provide essential support and cohesion to civil society and are readily apparent at the local community level, such as Rotary Clubs, churches, synagogues, mosques, and the Civil Aviation Patrol. As Katrina demonstrated, involvement of these groups is essential to disseminate information through respected local opinion leaders and to identify

lacking. Perhaps most critical is providing funding with strings attached to cajole local and state agencies into developing regional plans. Resources must be included for hospital preparedness requirements because patient care revenues are off limits for such needs. Meaningful performance standards and benchmarks must be developed so appropriate targets may be established. Local, state, and regional needs must include identification of medical surge capacity hospital bed space in fixed facilities and at alternate sites such as schools. Medical supplies and equipment and healthcare personnel to staff additional



facilities must also be identified. Audits of existing Federal grant programs for bioterrorism preparedness by the Government Accountability Office suggest that there is much room for improvement in these tasks.

Agencies must identify Federal resources that are likely to make a difference in a local and regional mass casualty incident response. Maintaining national supplies of pharmaceuticals and vaccines is an essential Federal task, but providing supplies without clear direction on local distribution methods leaves the mission incomplete. National sources of hospital beds and medical equipment will likely be necessary, but identifying healthcare professionals and providing them and the hospitals where they deliver emergency care with licensure and credentialing standards and liability protection is much more important.

The Federal Government must create an environment in which best practices can be developed and tested. Alternative models for national solutions should be prototyped and fine-tuned in a multistate region, then provided to state and local governments for adaptation to local needs. These models should include sources, organization, and management of healthcare professionals; credentialing, training, and personal protective equipment; and liability protection and reimbursement. Methods should be included to maximize existing hospital bed space and to create alternate facilities, transport casualties to regions with excess capacity, and identify funding sources for local hospital preparedness. National professional medical and legal societies should be engaged to discuss mechanisms of triage and the graceful degradation of the quality of emergency care that will take place in the face of mass casualties.

## Organizational Barriers to Coordinated Planning

The rate-limiting step in coordinated planning is the requirement to work across bureaucratic, organizational, and professional barriers. Whenever communication or coordination must take place between agencies, organizations, jurisdictions, or offices, potential stumbling blocks exist. These barriers may thwart communication horizontally, with like agencies at the same levels of government, or vertically, when proceeding up or down the chain of command. Organizational culture becomes a barrier when moving across agencies or business sectors, and bureaucratic obstacles to information flow seem to be ubiquitous.

Joint Task Force North (Armando Carra

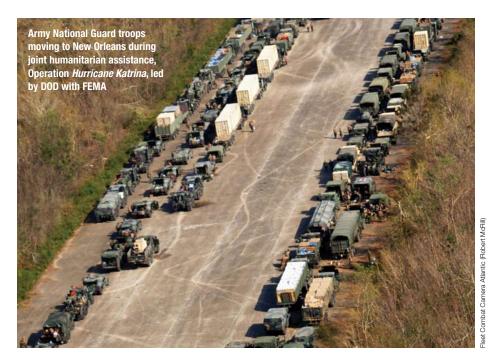
An example of bureaucratic inefficiency is the initial response to the Severe Acute Respiratory Syndrome (SARS) outbreak in early 2003. According to Yanzhong Huang in his analysis of the political aftermath of SARS in China:

The presence of such a fragmented and disjointed bureaucracy within an authoritarian political structure means that policy immobility can only be overcome with the intervention of an upper-level government that has the authority to aggregate conflicting interests. However, this tends to encourage lower-level governments to shift their policy overload to the upper levels in order to avoid assuming responsibilities. . . . Government officials at all levels tended to distort the information they pass up to their political masters in order to place themselves in a good light. While this is not unique to China, the problem is alleviated in democracies through "decentralized oversight," which enables citizen interest groups to check up on administrative actions.2

Elements of these bureaucratic inefficiencies are a reality at many levels of government in the United States. Bureaucratic inertia may be overcome, but only with sustained effort.

### **Crisis Decisionmaking**

To paraphrase General George Patton, the best plan is useless if executed too late. The best confirmation that planning and preparedness efforts are adequate is to demonstrate successful decisionmaking in executing a plan in a staged crisis management exercise. Such tests should be part of the planning-training-exercising cycle of each agency but must intentionally focus on cross-jurisdictional crisis communication. As this exercise process matures and leaders develop greater experience with making complex decisions quickly and early in a crisis when desired information may be incomplete, exercise scenarios can be made more challenging. Authorities will gain confidence in their own abilities and become comfortable with the actions of responders from other agencies. All will learn better crisis communication with the media and how to engage the public on actions to protect themselves. None of these steps may happen, however, until the basic coordinated planning described above takes place. For



Katrina, a massive Federal response in less than 72 hours was widely criticized due to a lack of understanding that the first response is necessarily a state and local responsibility.

If DOD does not get involved in coordinated planning, military installations near the affected area will be unlikely to maintain their usual operational capability. Many personnel live off post, and installations depend on local civilians to work on post. Infrastructure is often shared with civilian communities, and daily delivery of food, goods, and services is necessary to keep the facility operational. If a large incident occurred nearby, the installation would have

an example of bureaucratic inefficiency is the initial response to the Severe Acute Respiratory Syndrome (SARS) outbreak in early 2003

to survive for a time without outside support. Civilian hospitals, healthcare facilities, and public health agencies would all be focused on providing emergency services in and near the incident site. Utility, communications, and transportation workers would be diverted from roles that support the military installation as attempts are made to restore civilian services during rescue and recovery phases. A military airfield that is shared

with a civilian airport may be shut down to control the spread of an epidemic, restricting the ability to move vital forces or cargo. The installation commander may seal the gates to protect military resources, but this is likely to further degrade force projection capabilities since the installation will rapidly run short of food, supplies, and support personnel.

This risk was identified in the context of a public health emergency with SARS, when the Defense Science Board commented that "the department's capability to perform its mission could be limited if there is no plan for immediate protection of the force. While DOD has cautiously adopted a supporting role in response to an outbreak and related consequence management, this deferral may result in delayed action when immediate action is demanded."3 DOD needs a robust ability to surge medical treatment for its own forces, and this ability must be integrated with those in the civilian sector so it can maintain crucial force projection capabilities.

### **Preparedness Defined**

A national target for preparedness for combating terrorism has been proposed by the Gilmore Commission and applies equally to any domestic emergency:

Preparedness for combating terrorism requires measurable demonstrated capacity by communities, states, and private-sector entities throughout the United States to

ndupress.ndu.edu issue 40, 1st quarter 2006 / JFQ 21

respond to acute threats with well-planned, well-coordinated, and effective efforts by all of the essential participants, including elected officials, police, fire, medical, public health, emergency managers, intelligence, community organizations, the media, and the public at large. At times, this may require support from the military—Active and Reserve. Such preparedness requires effective and well-coordinated preventive efforts by the components of the intelligence community, law enforcement entities, and a well-educated and informed public. These efforts must be sustainable over the foreseeable future while maintaining a free civil society.4

The actual national need is for integrated, coordinated, all-hazard response planning. All requirements, capabilities, and potential sources must be considered and courses of action must be developed to close gaps. Plans need to be fashioned and realistically exercised, then improved,

The initial policy support for such proactive engagement appears to be in place. The new *Strategy for Homeland Defense and Civil Support* recognizes the need to access mission risks, improve DOD consequence management capabilities for multiple mass casualty attacks, and enhance the capabilities of interagency partners.<sup>5</sup> Joint Publication 3–26, *Homeland Security*, provides definitions and operational parameters for homeland security, including the process for requesting assistance in consequence management.

These policy documents are a significant step in the right direction as DOD prepares for its new homeland security role. The need persists, as Katrina's lessons are analyzed, to identify the mechanism in which military medical, logistic, and response planners may engage at the appropriate Federal, state, and local levels. U.S. Northern Command does not appear to have the necessary policy or authority for such involvement in civilian preparedness

response plans, in contrast to the current focus on Federal and national response planning. It must include private sector and volunteer sources of resources and must engage local and national medical associations.

If a concerted effort is made to develop indisputably effective plans that incorporate public, private, and volunteer resources, the impact of terrorist acts and natural disasters will be reduced and the homeland will indeed become more secure. **JFQ** 

#### NOTES

<sup>1</sup> Defense Science Board 2003 Summer Study on DOD Roles and Missions in Homeland Security, available at <www.acq.osd.mil/dsb/reports/homelandss.pdf>.

<sup>2</sup> Yanzhong Huang, "The SARS Epidemic and Its Aftermath in China: A Political Perspective," Learning from SARS: Preparing for the Next Disease Outbreak Workshop Summary (Washington, DC: National Academy Press, 2004).

<sup>3</sup> Interim Report of the Defense Science Board Task Force on SARS Quarantine, December 2004, available at <www.acq.osd.mil/dsb/reports/2004-12-SARS\_Memo\_Final.pdf>.

<sup>4</sup> The Fifth Annual Report to the President and the Congress of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction, December 15, 2003, RAND Corporation, available at <www.rand.org/nsrd/terrpanel/volume\_v/volume\_v.pdf>.

<sup>5</sup> Strategy for Homeland Defense and Civil Support, June 2005, available at <www.defenselink.mil/news/Jun2005/d20050630homeland.pdf>.

The Center for Technology and National Security Policy (CTNSP) examines the implications of technological innovation for U.S. national security policy and military planning. Visit the CTNSP Web site at

# the military possesses several core competencies that directly support mass casualty planning

then exercised again. Next, training must be developed that supports integration of these plans into day-to-day actions at every level. The military contains much of the national expertise for such deliberative planning. The process involved in planning for and executing a major military operation involves many of the steps described above. A coordinated military campaign plan is much more complex, contains a greater number of variables, and requires many more assumptions in the face of uncertainties than does the response to a major terrorist incident in the United States.

The military possesses several core competencies that directly support mass casualty planning. These were brought out in the Defense Science Board 2003 Summer Study on DOD Roles and Missions in Homeland Security and include training, experimentation, and operational-level planning and execution. The Defense Science Board notes the overlap between the preparedness and planning that DOD needs to fulfill its own homeland defense and security responsibilities, and how the department can enhance homeland security by exporting the relevant core competencies that match the needs of other organizations.

planning. Military planning for civil support will be ineffective if it is not carried out with all the agencies involved in a response. Engagement at the Federal interagency level is important but insufficient. It is incumbent on leadership to create the national forum in which functional, effective mass casualty preparedness planning can occur across artificial bureaucratic barriers.

This mass casualty planning forum should be cosponsored by the Departments of Homeland Security, Health and Human Services, and Defense, but it must focus on local and state needs first. Its charter should be to support state development of local, state, and regional mass casualty preparedness and



For more information about Joint Force Quarterly or NDU Press publications check online at ndupress.ndu.edu

<www.ndu.edu/CTNSP>.

For a personal subscription to the journal, order from the U.S. Government Printing Office: (202) 512-1800; Fax (202) 512-2250 or order online at http://www.access.gpo.gov/su\_docs/sales.html

22 JFQ / issue 40, 1st quarter 2006