

otherwise, is that the actual threat of such WMD attacks can be easily mislocated, and U.S. agencies blind-sided as to the actual point of origin of such attacks.

Thus, for example, in March 1998, the British government issued an alert for Iraqi intelligence operatives attempting to enter Britain, smuggling components of biological weapons. Israeli Likud propagandist Yosef Bodansky, who works in Washington as a research director of a Republican Party Congressional Task Force, had earlier published similar disinformation. The British report was a transparent effort to once again provoke a Persian Gulf crisis. It did not succeed in provoking the Clinton administration into a new showdown with Saddam Hussein. Nevertheless, the incident underscores that there is a significant amount of disinformation on the biological and chemical weapons threat in circulation, at precisely the moment that defense against such attacks is being given serious attention in Washington, particularly at the Pentagon. Biological weapons pose a particularly thorny challenge to national security planners, at every level; and, therefore, competent intelligence is of vital importance.

A window on the debate over how to deal with the threat of biological and chemical WMD, was opened in December 1997, at a three-day conference in Baltimore. The conference was a by-invitation-only affair, but it was not a classified event. Dr. John Grauerholz, a contributor to both *EIR* and *21st Century Science & Technology*, attended the conference, and filed a summary report. *EIR* has received permission to publish Dr. Grauerholz's report, along with excerpts from the keynote address delivered by Don Latham, a member of the Defense Science Board, which recently prepared an in-depth study of the danger of biological and chemical warfare for Secretary of Defense William Cohen.

## U.S. biowarfare defense doesn't measure up

by John Grauerholz, M.D.

From Dec. 1-4, 1997, approximately 100 experts in strategy, policy, and operations related to chemical and biological warfare engaged in discussions covering the gamut, from strategic overview to on-the-street responses to deployment of chemical and biological agents by various domestic and foreign enemies. The conference on Urban Protection Against Bioterrorism Threats was jointly sponsored by the Department of Defense, the Army War College Strategic Studies Institute, the FBI Scientific Laboratory, the American Registry of Pathology, the Air Force Academy Institute for National Strategic Studies, and the National Consortium for Genomic Resources Management and Services (GenCon).

The conference provided a unique forum where people from diverse agencies and organizational levels could begin the dialogue necessary to form a policy consensus on effective response to use of biological and chemical weapons of mass destruction by criminals and terrorists. Scientific input to policy and operational determinations is crucial to formulating effective responses to this threat. Interaction of the street-level first-responders with policymakers and strategists is essential to avoid policies and strategies disconnected from operational reality.

The following points emerged from the discussion:

1. Biological warfare is fundamentally different from chemical warfare, especially in deployment against civilian and non-human targets.
2. Current response and procurement programs are inadequate to cope with a large-scale attack with biological agents.
3. Centralized command and coordination are essential to mobilize and utilize our existing and future capabilities, to minimize casualties among victims and first-responders.
4. Potential deployment of chemical and, especially, biological weapons against domestic targets requires fundamental reevaluation of our defense priorities in research and procurement.

### Biological and chemical warfare

*1. Biological warfare is fundamentally different from chemical warfare, especially in deployment against civilian and non-human targets.*

Chemical attacks are relatively unambiguous, though the perpetrators may be obscure. There is usually a device and a scene. People are the primary targets, though some agents can render buildings or dwellings temporarily unusable. A chemical device is relatively restricted in time and space and more susceptible than biological agents to containment by Hazmat (Hazardous Materials) and CBIRF (Chemical and Biological Incident Response Force) teams. Most current response scenarios postulate a defined "incident," and most training deals with response to such an "incident." The first-responders in such a scenario are police, fire and rescue personnel, and, to a lesser extent, emergency physicians. They respond to a specific place, which is a crime/disaster scene, because releasing a toxic chemical and killing and injuring people is a crime. The primary demand on medical infrastructure is acute treatment of survivors.

A biological warfare attack, on the other hand, can be subtle to the point that it is unrecognizable. There may be no device or scene in the classical sense. Animals, plants, and buildings can be targetted as well as people. Microbes can persist in an area in ways that most chemicals cannot. Whereas chemical casualties occur shortly after exposure to an agent, most infectious diseases have incubation periods of days to weeks, and occasionally years, in the case of HIV. There may be no "first-responders" in the classical sense alluded to above. Human victims will more likely present to private

physicians and outpatient clinics than to emergency rooms.

Detection of biological agents must primarily take the form of increasingly sensitive and specific diagnostic tests in hospitals and medical offices, rather than the type of sensor technology appropriate for screening an area for a chemical agent. This relates to the difference between analyzing the area of an "incident" and diagnosing a sick individual, animal, or plant. In cases where a biological "incident" area can be found, field diagnostics can confirm the presence of an agent.

The most terrifying aspect of biological agents is their transmissibility. Sarin gas may be a lethal agent, but you don't "catch" Sarin from an asymptomatic carrier or sick person the way you can catch smallpox, for example. You can vaccinate against smallpox, assuming you make the diagnosis, whereas you can't vaccinate against Sarin. Biological agents are ideally suited to create panic and despair in a population if an epidemic gets going and cannot be contained, due to lack of vaccines or treatment or inability to enforce quarantine. Conversely, adequate vaccination can render an otherwise devastating agent relatively useless as a weapon.

Among the first victims of secondary infections will be the physicians and medical facilities to which those initially infected go to seek treatment. Absent an incident scene, there is no way to prevent infected and infectious individuals from utilizing health-care facilities if it isn't even known that an event has occurred. Thus, an epidemic can attack a society's medical defense system the way the AIDS virus attacks an individual person's immune defense system.

Biological agents are also more complex in that they can attack and spread epidemic disease among plants and animals, disrupting our food supply or closing domestic and foreign markets to our agricultural production. In that regard, it is useful to point out that much of the expertise in diagnosing and dealing with potential biological agents, including human pathogens, resides in the veterinary community.

## Response programs

*2. Current response and procurement programs are inadequate to cope with a large-scale attack with biological agents.*

Currently we are reasonably prepared for small to moderate-scale chemical incidents in certain localities. Development of area sampling detectors will enhance our ability to rapidly detect an agent at a scene and institute measures including appropriate antidotes, if available. Area sampling detectors for biological agents, while useful, are constrained by the fact that there may not be a clear-cut scene.

Protective suits for first-responders will be more useful in chemical incidents than in biological ones, for the reasons stated above, namely, a relatively clear-cut scene. There is no current or proposed program to deal with containment of hundreds, or thousands, of infected and infectious individuals and corpses. There are less than a hundred isolation beds in the entire country and no plans to build or acquire any more.

In his lecture on Epidemiological Perspectives, D.A. Henderson, M.D., referenced an outbreak of smallpox in Yugoslavia which caused approximately 20 deaths and 175 cases of smallpox, and required the quarantining of 10,000 people in apartment buildings. In Germany, a single case confined to the first floor of a hospital infected 11 people on three different floors by aerosol transmission through the ventilating system, and these people went on to infect many others, some of whom died, before a vaccination campaign finally halted the epidemic. Since we stopped vaccinating approximately 20 years ago, and since those vaccinated over 20 years ago have little residual immunity, almost our entire population is susceptible. We have enough vaccine to immunize 1 million people and no more is being produced. Nonetheless, vaccine development is the one current area of research and procurement that is actually relevant to a large-scale biological attack.

One problem is that actual deaths from AIDS and breast cancer are much more compelling than theoretical deaths from vaccine-preventable diseases, whether of man-made or natural origin. When pertussis (whooping cough) caused 260,000 illnesses and 9-10,000 deaths a year in the 1930s, it was relatively easy to persuade people to take a vaccine which might have lethal side effects in 10-12 people a year. In a population with little experience of epidemic infectious disease, developing and using such vaccines is a harder sell, especially current vaccines against smallpox, plague, and anthrax. An adequate vaccination program must address three issues:

- Are adequate supplies of vaccine available?
- Have those vaccines been tested to ensure safety and effectiveness?
- Is there provision for efficient regional distribution of these vaccines, when needed?

For antibiotic-sensitive diseases, such as plague and anthrax, an epidemic would require much larger stores than we have or currently plan to acquire.

The advantages of vaccination and treatment increase with timely knowledge of what disease one is dealing with. Timely knowledge is a product of diagnosis, reporting, and epidemiologic surveillance. The proposals from the Office of Science and Technology Policy (OSTP) and the World Health Organization (WHO) for a global infectious disease surveillance network are relevant here. An investment in improving epidemiologic surveillance capabilities could produce incalculable benefits in the timely identification of biological agents that would enable us to most effectively marshal our limited resources. It could make the difference between dealing with tens and hundreds of cases in a relatively small area, and dealing with thousands of cases over a much larger area.

During the conference, presentations on training, response, and facilities focussed on chemical agents, and presenters repeatedly demurred on the issue of biological agents. A constant refrain was that we are "picking the low-lying fruit" by concentrating on the more manageable situation of

a chemical incident. While we may tailor our response to our capabilities, any serious terrorist will target his or her attack against our vulnerabilities.

One reason to think that biological agents are likely to be used, either by strategically minded terrorists or disturbed individuals, is that many agents are relatively inexpensive and easy to manufacture by someone with a bachelor's degree in microbiology. One participant, with the background to know, stated that an effective mass casualty biological weapon could be manufactured for about \$500, by someone who could obtain the agent, using supplies available in grocery and hardware stores.

### **Centralized command and coordination**

*3. Centralized command and coordination are essential to mobilize and utilize our existing and future capabilities to minimize casualties among victims and first-responders.*

Response to a sizable chemical or biological incident is beyond the capacity of any local jurisdiction and requires a coordinated Federal, state, and local response. The concept of a WMD Coordinator, as envisioned in the Nunn-Lugar-Domenici legislation is germane, because inter-agency cooperation has not, and will not, spontaneously emerge when an incident occurs. The heat of a major event, with large numbers of dead and dying people and the attendant media circus, is not a climate in which rational deliberation is possible. Large-scale man-made disasters present complicating factors not present in natural disasters, not the least of which is the fact that when a scene is present, it is a crime scene as well as a disaster scene. Preserving lives as well as evidence requires coordination of multiple agencies and responders in a situation in which scene responders risk becoming victims themselves. This possibility is heightened in a "two-tap" scenario in which terrorists initiate an incident in order to target the responders.

The problems in a biological attack without a "scene" are equally daunting, if one considers the implications of simultaneous cases of a lethal, highly communicable disease appearing in many locations. Such a scenario is the predictable result of releasing an aerosol of smallpox, plague, or anthrax in an airport or train station.

Congress needs to build on the solid foundation created by the Nunn-Lugar-Domenici legislation to devise a comprehensive Strategic Civil Defense plan for urban bioterrorism. This plan should cover the wide spectrum of potential bioterrorism possibilities seen by U.S. military and intelligence strategic analysts, and identify appropriate defensive measures for them. It should prepare for the large-scale attack involving thousands of casualties, as well as the score of casualties or less that current facilities and programs provide for. It must recognize that the first-responders here will not be rescue, fire, police, or military CBIRF teams, but physicians, medical examiners, and morticians. Any effective policy will strongly emphasize training of these individuals and groups

to ensure that they are part of the solution, and not part of the problem.

Since nuclear retaliation cannot effectively deter many terrorist groups, the strategic plan must deal in depth with the challenges of building a long-term deterrent. The plan should include special emphasis on food and agricultural targets, economically inspired terrorism, and terrorism directed at national infrastructure.

The Strategic Civil Defense Plan should be run by the WMD Coordinator envisioned in Nunn-Lugar-Domenici. The coordinator will require adequate staff to interface with the multiple agencies which will be involved in responding to a terrorist attack with a biological and/or chemical weapon before, during, and after an event. He or she must have special authority, as authorized by the President, to mobilize the necessary supplies and personnel to respond to an incident. The plan should provide for program development as well as for rapid and effective response to a major WMD emergency, including funding, disbursement, and provision of legal protection of responders from litigation arising from the exercise of their responsibilities. This would include authority to temporarily utilize veterinary treatment and diagnostic facilities in ways that are proscribed by current regulations.

Because government medical and scientific expertise will still have to meet its regular commitments, mechanisms must be established to utilize the substantial pool of such expertise in academia and industry, in both formulation and execution of plans, policies, training, and research.

### **Defense priorities**

*4. Potential deployment of chemical and, especially, biological weapons against domestic targets requires fundamental reevaluation of our defense priorities in research and procurement.*

Secretary of Defense Cohen and the National Defense Panel recently called for the entire national security establishment—including intelligence agencies and the National Security Council—to adjust and adapt to a 21st-century world which will present vastly different security challenges than today. For example, after decades of gearing U.S. defense planning to the threat of large-scale warfare in Europe, Korea, and the Persian Gulf, the Pentagon needs to focus more on the risk of smaller, unconventional attacks on American soil. This "defense of the homeland" will become an increasingly important mission for the military, as more nations hostile to U.S. interests acquire weapons of mass destruction and the means to deliver them.

This theme was echoed in Donald Latham's report to the conference on the 1997 Defense Science Board Summer Study on DOD's capabilities and response to transnational threats (see *Documentation*). This study focussed on capabilities and responses in force and civil protection and interfaces with other agencies such as FEMA, Justice, and FBI. There was a civil integration and response panel that included first-

responders who worked the Oklahoma City and World Trade Center bombings.

Latham stressed that the very overseas operations which currently engage the military increase the likelihood of terrorist responses against U.S. domestic targets. He used the example of the U.S. bombing of Libya in 1986, in response to the bombing of a disco in Berlin. Three days later, Libya purchased a U.S. hostage and executed him. In September 1987, less than a year later, Pan Am 73 was hijacked by a group working through Libya, and several Americans were killed. In April 1988, a group working for Libya bombed a USO in Naples. Then several people were arrested with pipe bombs in New Jersey, followed by the bombing of Pan Am 103 in December 1988 and a French airliner over Chad in 1989. Then we interdicted a Chicago street gang which had been approached to use shoulder-fired missiles to shoot down an airliner at O'Hare Airport. These were not isolated incidents, but a campaign.

Presently this is not seen as a DOD mission, and agencies such as the Defense Advanced Research Projects Agency (DARPA), which should be in the forefront of developing such a defense, still see their mission as protection of U.S. forces in foreign offensive combat. One way to begin the necessary process of change would be for Congress to ask the Secretary of Defense to direct the National Defense University to conduct a study of the strategic, operational, and technical issues, in conjunction with relevant governmental agencies, academia, and industry.

---

## Documentation

---

# The recommendations of the Defense Science Board

*The following are excerpts from the keynote speech to the conference by Donald Latham, a member of the Defense Science Board.*

What I'd like to do this evening, is to give you a very short summary of the Defense Science Board's summer study that was just completed. It's called the 1997 Summer Study. The Defense Science Board is a board of 30 people that reports to the Secretary of Defense and the chairman of the Joint Chiefs. From academia, Josh Lederberg is on the Board. Some are from industry, like myself, and there are a few retired military officers. We do usually one major study a year, called the Summer Study. It starts in February and ends up in September.

The study report is on DOD's capabilities and response to so-called transnational threats. There was a very heavy

emphasis in the study on what to do about chemical, biological, and nuclear threats and their potential use against civil infrastructure, as well as military infrastructure. The report on this, the first volume, will be out, all unclassified, believe it or not, in about two weeks, and the second volume has to do with force protection, both CONUS [continental United States] and OCONUS [outside the continental U.S.], and then there's Volume 3, appendices that have detailed panel reports. . . .

I chaired a panel called DOD Capabilities and Response, which was the guts of the study and what we can do as heads of departments. We addressed both force and civil protection and the interfaces. We did not try to do a government-wide study. Obviously, this effort involves everybody that's anybody: FEMA, Justice, FBI, all had people on this study. In fact, we had a civil integration and response panel that included so-called first-responders. We had people that worked the World Trade Center bombing, people that worked the Oklahoma City bombing, etc., so we got a very good interface with the civil community, which brought up a lot of problems and issues and how to handle them.

## U.S. is no longer a sanctuary

Let me show you a little bit about what we called the so-called transnational threat. If you look at the Congressional bill that was put out in 1997, there's a formal definition of transnational threats. We're trying to make the point that these people are motivated very differently, and that with the technology that's available today, a very few people can cause an awful lot of trouble. How to deter them and control them is very difficult; some of them don't have any borders, they're all over the place. How do you respond to these people? It's very difficult in many cases, and the result is that the consequences of attacks, from these transnational people, could be as devastating as a major military conflict. . . .

The product of our times is proliferation of technologies and knowledge, with a lot of world actors. These people are getting fed huge amounts of money through narco-trafficking and global crime. They're not going to attack us directly; it's going to be an asymmetrical attack. We're becoming very vulnerable to these things. We've found a consolidation of terrorist infrastructure, a very strong correlation between U.S. involvement in international operations, and these threats against the U.S. It's not a sanctuary here anymore, as I'll show you in a second, and clearly, mass destruction and casualties are a goal [of the terrorists].

Now let me walk through three examples. We had strong input from the FBI on this.

When the Libyans hired the people to go bomb that disco in Berlin, the U.S. response was to retaliate and bomb Libya. A big deal. We sent in F-117s, so on, if you recall. Everybody thought that put them in their place, nothing more is going to happen. Three days later, they bought a U.S. hostage and killed him. In September '87, hardly a year later, the Pan