



The Beacon



BY AND FOR EMERGENCY RESPONDERS

COMMAND AND CONTROL ISSUES AT A WMD INCIDENT – A STATUS REPORT

By Gary J. Rohen, Unit Chief, NDPO

Members of the state and local emergency response community recently wrote a letter to the Attorney General (AG) identifying potential command and control issues at a WMD incident site. The AG tasked the National Domestic Preparedness Office (NDPO) to coordinate a solution to the Incident Command System (ICS) and Joint Operations Center (JOC) integration issue.

Command and control of a terrorist threat or incident is a critical emergency management function that demands an integrated and unified framework for the preparation and execution of plans and orders. Emergency response organizations at all levels of government may manage command and control activities differently depending on the organization's history, the complexity of the crisis, and their capabilities and resources. Management of federal, state, and local response actions must reflect an inherent flexibility to effectively address the entire spectrum of capabilities and resources across the United States. The resulting challenge is to integrate the different types of management systems and approaches used by all levels of government into a comprehensive and unified response to meet the unique needs and requirements of each incident. Since state and local emergency response organizations are generally structured to manage incidents with an ICS, the federal response to an incident of terrorism is structured to smoothly interface into an existing ICS through the evolution of the ICS into a Unified Command.

The team addressing these potential issues includes representatives from the National Fire Academy (NFA), which is the proponent agency for ICA, the Federal Emergency Management Agency, Federal Bureau of Investigation (FBI), and the NDPO. After much discussion, the common areas of concern were identified as coordination, incident site operations, terminology, and subsequent education of the emergency response community. This group focused initial discussions on developing protocols to seamlessly integrate federal response assets at a working incident site. The recommendations under review **do not change** existing federal or state critical incident management systems, but describe an operational implementation strategy.

In January 2000, FBI and NDPO personnel attended a 2-week executive level fire service emergency management course at the NFA. The attendees at this course represented command personnel from fire departments across the United States. The recommendations, which also address terminology and coordination issues, were closely examined during planned terrorist incident simulations at the NFA and Emergency Management Institute. All participants and instructors concluded that existing federal and state critical incident management systems each had specific purposes and could seamlessly interface at a working incident site.

The methodology tested was predicated on the fact that local response assets will be the first units at the incident site. This proposal enhances the ability of the FBI to carry out its mandated mission by providing specific positions within an ICS. Further, by promulgating this plan through the NFA, emergency service assets will plan for the arrival of FBI resources. It is envisioned that the first FBI Special Agent (SA) or Joint Terrorism Task Force (JTTF) member responding will receive an initial briefing from the incident commander or his designee

and assume the role of liaison to the Incident Commander. The FBI representative will then alert the local field office and, if necessary, request additional assets. Upon his/her arrival, the WMD Coordinator will assume the position of Deputy Chief of Planning within the ICS. This position will permit the FBI SA to remain updated on the situation and be a conduit for requests for additional assets. The Agent will also input federal objectives into the developing incident action plan and perform other duties as appropriate. When an FBI Assistant Special Agent in Charge or supervisor arrives on the scene, he/she will assume the role of liaison to the Incident Commander and the first arriving SA or JTTF member will become the Deputy Chief of Operations and supervise the deployment and coordination of federal crisis assets in support of the Incident Action Plan.

Future plans call for the joint development of courses which can be easily exported for instruction throughout the emergency response community, to include the FBI.

Gary J. Rohen is a Unit Chief in the National Domestic Preparedness Office. Mr. Rohen can be reached at grohen@leo.gov, or 202-324-9032.

PUBLIC/PRIVATE WMD PLANNING

A Case Story from the City of Sterling Heights, Michigan, Office of Emergency Management

By J. Robert Johnson

Three years ago, after meeting with the FBI, the city of Sterling Heights began a Municipal Security Task Force. The task force was formed from the Municipal Security Team of the City Manager, Department of Public Works Director, Fire Chief, Police Chief and the Emergency Manager. The Municipal Security Team was formed to meet for administrative planning and response to any threat of the city's critical infrastructures that would include a terrorist act.

The task force was suggested by the Bureau to bring people together from varied disciplines from

within and around the city. The city has a population of 125,000 and is located approximately 20 miles to the north of Detroit, Michigan. The City of Warren is located between Detroit and Sterling Heights and is one of the 150 cities designated for WMD funding. The group was formed and has been meeting on a monthly basis for over three years. Table top exercises and training by the FBI, EPA and the WMD Assessment Team in Wayne County, Michigan, were provided to the group.

The 45-member task force is comprised of federal, state, local public disciplines and others from the private sector. DaimlerChrysler, General Dynamics Land Systems, Ford Motor Company are the larger members while smaller private sector businesses participate. The military provide representatives from Selfridge Army National Guard Base, the TACOM facility, and military intelligence. Federal agencies are the ATF, FBI, Secret Service and the EPA. The Michigan Department of Public Health Counterterrorism Surveillance provided a member as well.

Recently, three work groups were formed that include a Schools Work Group, an External Threats Work Group and a Technology Work Group. The Schools work group consists of representatives from the Fire Department, Police Department, Secret Service, and two of the larger school districts. They meet each month to develop a close bond for response, and mitigating incidents before they happen. Sandia National Laboratories provide security vulnerability as a pilot program in one of the high schools. A police captain chairs this group. A DaimlerChrysler Corporate Security official who recently retired as a captain of the Michigan State Police chairs the External Threats Group. The group consists of the ATF, FBI, Military Intelligence, General Dynamics, Detroit Newspapers, Ford Motor Company, DaimlerChrysler who look at how sensitive information is shared between disciplines. General Motors are in the process of joining the group. The last group is the Technology Group chaired by a Ph.D. from General Dynamics. The group is presently working with the Michigan State Police Bomb Squad and the Sterling Heights Fire Department hazardous materials team. The bomb squad would like to have one team they can call upon when responding to chemical agent events. The group is also researching different technologies available to save time in response to certain bomb events. Telecommunications, safety to both HAZMAT and bomb members is critical to this

group's research. General Dynamics has a tremendous knowledge of instrumentation and equipment designed for the military and has been a great resource.

This partnership has developed into a proven relationship for all involved. Incidents have occurred at private sector locations that could have had a negative result had the police and security personnel not known each other prior to the event. An exercise with General Dynamics was hosted by Michigan State University Criminal Justice Programs partnered with the city to provide an interactive video conferencing between one plant in Sterling Heights and their other plant located on the other side of the state. This exercise was based on a disgruntled employee who used chemical devices to threaten the company. The exercise was a complete success. The company learned from the ATF, FBI and EPA the time frame to investigate and cleanup an event of this type. Several weeks later, a hazardous materials event on the rails behind the General Dynamics facility caused the evacuation of their 1,100 employees and 2,000 other employees of companies in the area. General Dynamics provided personnel in the Unified Command Center that cut the time and effort to evacuate and inform the company.

The FBI provided our HAZMAT team the opportunity to train with all of the bomb technicians from Michigan at a week-long training session. This is the first time in Michigan that a HAZMAT team has trained with the bomb technicians. The instructors from the Huntsville, Alabama site reinforced the issue of how to train with HAZMAT and operate under Incident Command. Our team dressed out the bomb technicians and decontaminated them after they brought a WMD device to safe mode from an event.

The partnerships have greatly enhanced our ability to provide direction in domestic and WMD events. Sterling Heights has developed a response policy for terrorist events based on the federal plan, and we have in place THREATCONs for any terrorist event that could occur in the city.

J. Robert Johnson has been an emergency manager since 1983. Mr. Johnson has a background in law enforcement and as an owner and operator of a private ambulance firm for 13 years. He is an adjunct faculty member for Eastern Michigan University as an instructor of Emergency Planning. He has authored in emergency management topics

and has spoken on the subject throughout the country and the state of Michigan. Mr. Johnson has been presented with the two highest honors for emergency managers in Michigan with the Emergency Manager of the Year by the state association and the Professional Emergency Manager through the Michigan State Police Emergency Management Division. Mr. Johnson can be contacted by e-mail at bjohnson@sterling-heights.net.

NDPO CHAT WITH WILLIAM C. PATRICK, III

Mr. Patrick: Hello everyone, I'm Bill Patrick. I'm a fossil from the old Biological Warfare Program. I was the Chief of the product development division, and we made agents to fit munitions and delivery systems

Mr. Patrick: Thanks for participating in our chat session today, we'll open by asking if anyone has any particular questions relating to bioterrorism.

Question: In your estimation, what poses the greatest bioterrorism threat to the United States?

Mr. Patrick: State supported terrorists developing a dry powder, either anthrax, tularemia, or smallpox, and entering into the country through the auspices of the UN. 75 to 100 grams of dry powder, composed of small particles, void of electrostatic charge, and with good secondary aerosol properties would result in large numbers of casualties. If the powder were placed in an internal environment such as Metro Station in DC, Atlanta Airport tram system, or the NY subway system.

Question: Do the means for making BW particles without electrostatic charge exist today?

Mr. Patrick: I do not know the answer to that question, but I certainly hope not. All of our weaponized agents were processed so they had no electrostatic charge or a minimum amount of charge. That knowledge rests with me and possibly two other people from the old program. This will remain with me because this know-how would significantly increase the potential threat caused by bioterrorists.

Question: How can the private health community become involved the process of preparedness?

Mr. Patrick: They need lectures concerning the general principals of Bio warfare. This information would provide them with a better understanding of particle size-infectivity relationships, a knowledge of primary aerosols, a knowledge of secondary aerosols, and information concerning decontamination.

In BW considerations, decontamination is not the concern as it is for CW. One of my peeves today is the fact that most fire departments love to hose down potential casualties after the aerosol has passed and the organism has been breathed into the lungs. The infectious process is now underway and decontamination, per se, will not stop the disease process.

Decontaminating people under these circumstances is not warranted.

Question: In the Denver TOPOFF exercise, many folks were interested in the communicable rate of pneumonic plague and what types of PPE are recommended...i.e. are universal precautions sufficient?

Mr. Patrick: Pneumonic plague is difficult to weaponize. The moon, the tides, and one's soul have to be in alignment to produce a moderate size culture that maintains its virulence.

The bio decay of the organism at night and at optimum conditions is about 10 to 12% per minute; decay is geometric in nature. Moreover, bio decay in sunlight even sunlight at sundown is sufficient to produce a bio decay of 50 to 60% per minute, therefore, the life of an infectious plague cloud is very short indeed.

The dose for man based on the Soviet program, stated that the aerosol dose for man is 3,000 cells.

It would be a difficult task for even rogue nations to effectively weaponize plague. The Soviets obviously succeeded in developing plague as a liquid agent, however, they were unable freeze-dry it.

With all of the restrictions referenced above, plague is still an effective agent because although few primary cases are achieved and through great effort, these cases continue to infect people. The figure of 20 secondary cases from each primary case is usually employed to predict area spread. Obviously secondary cases give rise to tertiary cases, etc. etc.

Question: So, the TOPOFF scenario was a bit "ideal" from a bioweaponeer's point of view, despite its communicable nature?

Mr. Patrick: I agree with you, it was somewhat unrealistic; however, it demonstrates the spread of a contagious agent. Had I been asked, I would have selected smallpox as the infectious and contagious agent. Variola major is stable with respect to both virulence and environment.

When the complex nutritional requirements for growing plague are considered, I would probably infect kittens and process the infected organs rich in the organism into the product. Infected kittens would certainly provide a product with little or no loss of virulence for man if the passage of the organism in kittens were limited.

Question: Is the bio threat overstated?

Mr. Patrick: This is a most difficult question for me to answer. I believe that in the appropriate hands a bioweapon is feasible.

I do not believe that Tom, Dick, and Harry type of terrorists can prepare an agent and disseminate it properly to cause many casualties.

Sophisticated groups with state support, as well as disgruntled microbiologists and chemical engineers in our university system could pose a threat.

Countries such as Iraq and Iran might hire unemployed scientists from the former Soviet Union, with detailed info regarding weaponization. This event would significantly improve BW programs and would thus increase our vulnerability

My experience in Iraq led me to conclude that even with the appropriate strain of anthrax, they were not successful in producing a high quality anthrax product.

They were able to achieve a concentration of between 1 and 3×10^8 spores per ML at the end of a 40 HR fermentation. This product would not have met US specifications, and would have been dumped. Their efforts to weaponize, that is the agent in efficient munitions and delivery systems, lacked even more credibility.

Question: From a terrorist perspective, would obtaining the necessary virulent culture be the major roadblock?

Mr. Patrick: The seed stock is certainly the most important element of developing a BW process. As you know, there are dozens of strains of anthrax in nature and perhaps only one or two of them are suitable for weaponization. You have to test the various cultures, preferably via aerosol, and select that culture which produces the largest number of infections in the various animal models and at the lowest dose level.

For example, the US tested about 22 strains of anthrax before it selected the most appropriate strain for weaponization at that time.

Strain selection for all agents would be concerned with getting the most virulent culture available.

Question: Can you recommend a good source of medical information on the BW agents? Often the clinical presentations of BW agents would be different than those of naturally occurring disease, so you need to read different literature.

Mr. Patrick: Jane's information handbook. The US Army Medical Research Institute of Infectious Diseases (USAMRIID) prints a book entitled "Medical Management of Biological Casualties" and my good friend and former USAMRIID Commander, Dr. David Franz, has written an excellent chapter on this subject. The title of the book is "Chemical and Biological Warfare, Part I," and can be obtained, I think, from the Office of the Surgeon General of the Army. This is probably the best reference that I've ever seen.

Question: What were the lessons learned from Aum Shinrikyo?

Mr. Patrick: We learned the following: 1) He may not have selected a virulent strain of anthrax; 2) Meteorological conditions were not considered because one attempt was made during daylight hours with no inversion present and any small particle aerosol would have gone into the atmosphere; and 3) The dissemination device that was described to me was ridiculous. The particle size of the aerosol and output of the device simply were not feasible.

Question: Why did you initially say that a terrorist should come in through the auspices of the UN?

Mr. Patrick: Because they are not searched. And they enjoy diplomatic immunity. 75 to 100 grams of agent can be placed in one's coat pocket and enter the country via diplomatic immunity without the normal security restrictions placed on incoming passengers.

Question: Yes, but why couldn't they just put the dry powder in a baby talc bottle and carry a baby with one and just walk in? I don't think anyone in any airport would question it. On the satellite conference the past several days it was noted that you or someone else carried a powder sprayer all over and no one ever questioned it.

Mr. Patrick: I couldn't agree more, the talc baby powder container is a good idea. My experience with airport security is that they are good at pistols and knives, but are ignorant regarding what BW agents look like and the crude disseminators that can be used to aerosolize them.

I've gone through every major airport in the US with simulant samples including a rose duster for disbursing dry agent. I also have a single fluid nozzle for disbursing liquid water although the efficiency of spray is pretty low. I've never been challenged. The presence, liquid and dry, plus crude disseminators indicate that airport security needs to be tightened.

MEDICAL RESPONSE TO CHEMICAL WARFARE AND TERRORISM 2000 – LIVE SATELLITE BROADCAST

December 5, 6, and 7, 2000

1230 to 1630 Eastern Standard Time

Sponsored by the US Army Medical Command

Military and civilian medical systems must be prepared to care for casualties of battlefield or terrorist use of chemical agents. In support of that mission, the US Army Medical Research Institute of Chemical Defense (USAMRICD) presents its second annual satellite broadcast on the Medical Response to Chemical Warfare and Terrorism 2000.

This live, interactive, three-day satellite broadcast will inform and educate health care professionals and first responders serving in the military and supporting civil defense/domestic preparedness programs about chemical agents and the

proper medical responses in the event of intentional or accidental chemical agent exposure. It will also discuss battlefield management, decontamination of casualties, and personal protective equipment. Discussions on antiterrorism will be integrated throughout. The program will feature discussions with world-renowned scientists, researchers, clinicians, and counter-terrorism experts.

Agenda

Day 1 – Overview of Pulmonary Agents and Vesicants

Day 2 – Overview of Nerve Agents and Cyanide

Day 3 – Field Management and Antiterrorism

Registration

To expedite the registration process, individuals are encouraged to register on-line by visiting <http://ccc.apgea.army.mil>. Once on the site, click on the Medical Response to Chemical Warfare Terrorism 2000 banner at the bottom of the page to access the Participant Registration website. From this website, you can review and choose from a list of viewing sites located in your state. Call or e-mail the site facilitator immediately after making your selection to reserve your seat and to confirm your registration.

If you do not have Internet access, please call RegisterAmerica.net at 850-784-6002, or USAMRICD at 410-436-2230 (DSN Prefix 584) for assistance.

Guest Editorial

“What we have here is a failure to communicate”

ARE WE READY FOR WHAT HAPPENS NEXT?

By Michael J. Fagel, Ph.D., CEM

Engine 1, Medic 1, Respond to the cafeteria at Jones Middle School, student reported having a seizure at this time, condition unknown.

Engine 1, Medic one on the scene, several students running out of the main building at the school, has the fire alarm been activated?

Dispatch to Engine 1, several phone calls now reporting 5 students convulsing in the auditorium...

What happens in the first second on the call change it from a normal routine call to one that will tax the resources of the response community?

WMD, are we prepared?

The scene described above may be chaotic and overwhelming. We must begin the process of sorting out our response objectives BEFORE we answer the call.

Our nation's public safety agencies have been practicing for our standard caseload of calls, EMS runs, Building Fires and vehicle rescue.

Now as we turn into the 21st century, we must be prepared for the next wave of incidents, the WMD (Weapons of Mass Destruction) event.

WMD is much more than a standard Hazardous Materials call, or as my friend Lt. Joe Bartholomew (Aurora, IL, Fire Dept.) says “HAZMAT WITH AN ATTITUDE”

Are we prepared for this event?

Planning, preparation and practice are the keys to survival.

We, as first response agencies are the FRONT line of defense. We will have our units committed, our hospitals inundated.

The threat to our specific community may vary, BUT the need for adequate preparation and training is constant.

We cannot legislate away the potential, just as we cannot change the weather, and as much, we must continue our role in “ ALL RISK, ALL HAZARD PLANNING”

We have heard for a long time that all events are local, and that the community is the “ owner” of the incident. We must focus on our own capabilities. Broaden our scope to be multi-jurisdictional. Events do not respect borders or time of day. We have learned that the Government is working towards providing more assets, BUT the fact remains that it is

OUR incident. Think LOCAL first and foremost. Partner with our agencies; don't do this lone.

The Federal Government is ready to assist us. BUT, they won't be here first.

We must practice response with ALL units of government. Our local response must include all elements of Police Fire rescue, Emergency Medical Services and Emergency Management. Public Health e Services, the Hospitals and ENTIRE medical community MUST be engaged in this process.

Our threats can be boundless, and we must be prepared for Chemical, Biological and Nuclear Events.

Many schools of thought give potential for certain percentages of events. I wont.

The event that may occur on the north may not occur in the south. WE JUST DON'T KNOW.

Rapid detection and containment is the key. There have been many novels written about methodology to be used. We can look at history, the Tokyo Subway incident that released Sarin gas and killed several. Hundreds more went to seek medical care on their own.

The anthrax scares, the hoax and real bombs

I worked at the Oklahoma City Bombing in April 1995, and saw first hand the 169 deaths and hundreds of injured people. This IS what can occur. BUT, that is not the first attack on American soil. The World Trade Center Bombing in February 1995 in New York killed six and injured hundreds.

Preparation and training are keys to survival. Threat Assessments can help YOUR community determine some of its unique vulnerabilities. In doing these, we MUST take into account all factors. Usually, A multi disciplinary team can best do this. We MUST include Law Enforcement, Fire, EMS, Public Works, Public Health, and Emergency Management and Hazardous Materials.

There is absolutely NO room at the table for Turf Battles, egos or other such NON-productive expense. Any emergency event, tornadoes, floods and WMD do not observe jurisdictional boundaries. We must gather all key individuals and agencies to the table to have a frank, open discussion on the project. THEN, we must roll up our sleeves and begin work.

What are your capabilities, truly? Don't say what you would LIKE to do, say what you ARE ABLE to do.

Now is the time to determine where the holes are in the system. They will best be resolved with open discussion, although the FACTS may be unpalatable to some.

To utilize these assembled resources for the common good is the way WE can benefit our citizens.

Major Adrian T. Bogart III, US DOD has aptly stated...

"For no greater cause exists today than that embraced by our nation's first responders in taking the front line and standing ever vigilant to protect this country from those who would attempt to deny us our freedom."

Well put Major, as WE are the front line of defense for our communities. Our communities rely on US to make the right decision.

TOGETHER we can be better than alone

My career has spanned 3 decades of public service, Law Enforcement, EMS, Haz Mat and Emergency Management. I have seen a great deal of cooperation among those agencies, BUT it has not always been that way. We must work everyday to improve at all levels, and avoid the "turf intramurals" that continue to plague cooperation to this day in some organizations, BIG and small.

One of the best ways to prepare is to do a full-scale drill of YOUR capabilities.

Assembling all of the key agencies and staffers that have been identified above best does this. Make a list that DOES NOT exclude planners, partners and support staff.

Look over the expected and think OUTSIDE the box. The National Guard Civil Support Teams (CST) are a good resource during the drill and event.

Look to industries that may have experience in dealing with chemicals.

Remember, Knowledge is power, and is the key to survival.

Communications is one of the key elements in any process.

We just don't mean electronic, telephone, radio, and such. The KEY is COMPLETE communications and being frank and open during the planning process.

All too often we have material that is "close hold" for whatever reason. We must support maintaining Operational Security. BUT, we must have a continuing dialogue that centers on open communications.

At numerous drills, I have witnessed communications fail.

Part of this failure is not by design, BUT by the lack of coordination. As communications systems become more sophisticated, we are now learning that architecture is not designed to let other systems operate together. Numerous studies have been done to try to determine where the failures occur. Generally, because of a lack of planning that coordinates all phases of communication. During the crisis is no time to figure out where the problems lie.

That's why we practice drills and really determine who will bring what to the table.

Thinking outside the box may be difficult for some but in emergency planning, it must be a reality. We no longer have the luxury of complacency. Threat levels may change, but the need for preparedness is constant. What have we learned in the last several years? It's really quite simple.

We all must do a better job of communicating, planning and practicing. There's no time for turf ...no time for egos... and no time for complacency.

The key to survival is communications - and it includes involving all potential team players during the process. Don't forget public works, public health, hazardous materials, law enforcement, fire, emergency management, and emergency medical services. All of these listed specialties must work together and communicate on a regular basis.

Let's start the process now by organizing a joint mission with all your key players. Reach out and COMMUNICATE for the benefit of our communities, OUR Customers.

That's why we are here doing what we do, for the common good, and there is

"No greater cause!"

We must begin now to prepare for the inevitable. It is not a question of IF!

It is a question of when.

Michael Jay Fagel, Ph.D., CEM is director of Emergency Management for the North Aurora Fire Department and the Village of Sugar Grove, Illinois. He has served over 30 years in emergency management and fire service. Currently Fagel is a volunteer in the Aurora Emergency Management Agency, a position he has held since 1968. Also, he currently serves the International Association of Emergency Managers as the president of Region V, as well as a certification commissioner for the Certified Emergency Manager program of IAEM. Along with these duties, he is a reservist with FEMA in the operation support directorate as a safety officer.

The opinions contained in this article are that of the author alone and not that of any federal, state or local agency. The author can be reached at MJFAGEL@AOL.COM or 630-897-055.

Dr. Fagel's article was used by permission of the author and was also printed in the 11/00 issue of the ICHIEFS On Scene newsletter.

The Beacon is published monthly for members of the emergency response community. Please send articles, comments, feedback, and letters to the Information Sharing Team at the address listed below.

**National Domestic Preparedness Office
Thomas G. Kinnally, Administrator
935 Pennsylvania Ave., N.W., Rm. 5214
Washington, D.C. 20535
202-324-9025, Fax: 202-324-2224**

Visit us online at www.ndpo.gov.