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VIGILANT LION EXERCISE (VL-99) After Action Report

FT. INDIANTOWN GAP
ANNVILLE, PENNSYLVANIA
SEPTEMBER 29-30, 1999

Disclaimer:

The observations in this report have been distilled from reports submitted by the exercise evaluators, controllers and participants. The exercise findings flow from the observations. This report has been circulated for review among the participating agencies, and their comments have been incorporated to the extent that is practical. The "lessons learned" and exercise findings are the opinions of the report authors and do not necessarily reflect the policies of all the sponsoring agencies.

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Comfort Team: Cynthia Yearsley and the Salvation Army crew really outdid themselves. The on-site beverages, meals, and snack food provided over the two days hit the spot. The two canteens served the 100 observers, 300 first responders, and press corps/VIPs like it wasn't a field exercise but an indoor event. Hats off to a top-notch chapter and organization!
Safety Team: Tom Dougherty, OSHA, Allentown Office and Rich Gale ensured that overall safety procedures were followed throughout the exercise. The absence of any major or minor injuries during the exercise can be attributed to the fine attention to detail.

If there are others who are not listed above, and or not identified in the After Action Report (AAR), the developers sincerely apologize to those unintentionally omitted. It must be noted that not all agencies submitted requested follow-up material that was to be included in this After Action Report. For items that are agency specific, and that are not listed within this AAR,, it is recommended that you contact the specific agency directly.

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Abstract:

"Vigilant Lion", a two-day exercise sponsored by the Pennsylvania Emergency Management Agency (PEMA), in cooperation with the U.S. Department of Energy, involved emergency personnel in a mock Weapons of Mass Destruction (WMD) incident involving a simulated radiological material release. This full-scale exercise involved more than 300 participants representing 40 local, state and federal emergency response agencies that were tasked with managing hazardous materials, explosive ordnance, emergency management, law enforcement and emergency medicine response activities. Except for the meetings in preparation for the exercise, many of these agencies had never worked together before.

Although the exercise revealed some minor problems in the overall coordination of exercise response actions, none had a detrimental effect on the exercise's overall execution. The primary problems were with the implementation of a Unified Command at the individual site locations and with the lack of anyone designated to supervise the overall safety of the responders in dealing with a real incident of this kind. There were other operational issues, which arose from people being unfamiliar with their counterparts at other levels of government, from the unfamiliar threats they had to address, and from artificiality imposed by the exercise logistics. Interagency cooperation occurred but the associated sharing of information did not always take place in a timely manner, specifically in the Joint Operations Center and the Federal Radiological Monitoring and Assessment Center. In some cases, a duplication of effort occurred which led to the unnecessary engagement of personnel and equipment use.

On broad overview, the exercise showed that the various local, county, state and federal agencies have the ability to deal with the terrorist incident that was simulated. Each agency came to the exercise with capable and dedicated people who knew their jobs and did them well. The exercise revealed a number of important "lessons learned" which should lead to a significantly strengthened ability to respond to a terrorist incident if the appropriate corrective measures are implemented.

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Executive Summary

"Vigilant Lion," a two-day exercise sponsored by the Pennsylvania Emergency Management Agency (PEMA), in cooperation with the U.S. Department of Energy, involved emergency personnel in a mock Weapons of Mass Destruction (WMD) incident involving a simulated radiological material release.

This full-scale exercise involved more than 300 participants representing 40 local, state and federal emergency response agencies that were tasked with managing hazardous materials, explosive ordnance, emergency management, law enforcement and emergency medicine response activities. Except for the meetings in preparation for the exercise, many of these agencies had never worked together before. In particular, the county and local teams had not worked directly with their counterparts from the federal agencies. In addition, the radiological threat was somewhat unfamiliar to the hazardous material teams, and there was a need to address the threat of explosives and booby traps, which were unfamiliar to the radiation experts. Overall, everyone was forced into an unfamiliar threat at one point or another. This provided an opportunity for a significant learning experience, and also accurately reflects the situation that would occur if a real incident were to happen.

The exercise included full-scale response to a simulated incident at a fictitious county in Pennsylvania (Fig County.) Two "crime scenes" were simulated in real buildings, the Fig County office building, and the home of the terrorist. The office building was a two story commercial-style building which was vacant at the time of the exercise. The scenario called for a dispersal device which spread strontium-90 through the ventilation system. After several days, "victims" began to show up at a local hospital with non-specific symptoms. The hope was that the hospital personnel would make the connection that all these people worked in the same building.

The second location was the "home" of the terrorist. This building, which was also unused base housing, was darkened and fitted with dummy grenades, trip wires, and a simulated bomb. A small but real sealed radiation source (Na-22) was included in the "bomb". This gave the responders practice in dealing with a real radiation source in simulated but realistic hazardous conditions. The explosives experts on the response team were required to use survey meters to find the bomb in the darkened house. A radiation safety officer, provided by EPA, assured that the entry team did not receive significant radiation exposure during this activity.

In both cases, entries were made using actual protective clothing and under realistic conditions. Six cottages were rented to simulate residences that included family "members" and property, which needed to be interviewed and surveyed immediately. Exercise planners designed emotional and physical problems into the exercise to simulate events that would be encountered in a real event.

Exercise play involved the activation of emergency operations centers and the deployment of personnel and air and ground assets from all levels of government. Vigilant Lion also involved

the Department of Energy's Radiological Assistance Program (2 teams) and the Pennsylvania National Guard's 3rd Weapons Of Mass Destruction Civil Support Detachment (formally the 3rd Military Support Detachment [MSD] Rapid Assessment Initial Detection [RAID] element). The 3rd WMD CSD is one of ten federally mandated teams responsible for supporting local and state emergency response to incidents involving weapons of mass destruction. This was the first large-scale, joint agency training exercise that the 3rd CSD actively participated in. Lebanon County EMA and the Pennsylvania Department of Environmental Resources provided personnel from their Emergency Response Team Program and the Bureau of Radiation Protection responded on scene with their Emergency Response cell. The Pennsylvania State Police provided on site security and crime scene expertise. The Environmental Protection Agency provided a Federal OSC, their Site Assessment and Technical Assistance (SATA) team and an EPA representative for the FRMAC / JOC. The planning and preparation for Vigilant Lion took more than nine months and required participants to undergo extensive, specialized nuclear, biological and chemical training.

Prior to the exercise, each participating agency developed its own individual objectives to be accomplished and performance measures for its response to the incident. Evaluation of these individual Agency objectives is not included in this report. It is left to the individual Agencies to assess their individual performance and any need for improvement. Instead, this report will focus on the overall exercise objectives in terms of overall response effectiveness and coordination and various activities as a whole.

The exercise revealed some problems in the overall coordination of the response. The primary problems were with the implementation of a Unified Command at the individual site locations and the lack of a designated individual to supervise the overall safety of the responders in dealing with a real incident of this kind. There were other operational issues that arose from people being unfamiliar with their counterparts at other levels of government, from the unfamiliar threats they had to address, and from artificiality imposed by exercise logistics. Early on, the interagency communication and coordination was very good, however, associated sharing of information did not always take place in a timely manner.

On a broader scale, the exercise showed that the various local, county, state and federal agencies have the ability to deal with the terrorist incident that was simulated. Each agency came to the exercise with capable and dedicated people who knew their jobs and did them well.

The exercise revealed the following lessons learned. The principal lessons are:

The Joint Operations Center (JOC) was activated on Day 2 of the exercise. In theory, this becomes a group of key decision-making representatives from the main response agencies whose function is to coordinate the response and to plan at the strategic level. The unified command structure, which would be established early in the incident, retains the responsibility to carry out tactical activities required to bring the event to closure. During this exercise this concept did not work as designed. Upon activation of the JOC, the unified command that had already been established in the field was largely ignored as officials in the JOC began to communicate directly with their personnel in the field.

Additionally, the coordination between agencies located in the JOC began to deteriorate as the law enforcement effort began to focus on the apprehension of the perpetrators. The information flow tended toward direct communication between agency representatives as opposed to all representatives within the JOC sending information to the FRMAC and Unified Command Structures. This lack of coordination became most noticeable on the afternoon of the second day when actions directed along law enforcement lines led to difficulty in attempts to discuss public safety issues. These issues include evacuation of civilians, site safety considerations, EMS support, field interviews and survey, and decontamination procedures. This problem did not flow from any particular agency or player, it was simply a symptom of two different response philosophies. There is a need to examine these differences in response philosophy and to develop a common framework that is comfortable for both law enforcement and HAZMAT responders.

The presence of law enforcement people on a crime scene (as opposed to HAZMAT responders on a spill scene) also made it necessary for responders to carry credentials in order to move in and out of the affected area. Such credentials would be essential in a real incident. There is a need for law enforcement and other response organizations to work closely with hazardous materials response organizations on a more regular basis. Law enforcement personnel have a responsibility to respond to the criminal aspect of the incident, are invaluable in securing the scene, and can provide protection from terrorist threat to the HAZMAT responders. Conversely, the HAZMAT response element can protect law enforcement personnel from dangers from chemical, biological and radiological threats. The team is complete only when both law enforcement and HAZMAT responders understand the responsibilities of the other and the contributions that each makes to the overall response.

While the crisis management activities are very important at a WMD event, consequence management, as it relates to public safety, cannot be ignored. There are many organizations and political leaders that have a legal responsibility to the public at an incident scene. All response organizations must work cohesively if there is to be a successful outcome. Even though a considerable amount of public safety resources were available through the county or state response systems, the JOC relied primarily on federal resources. Training in the Incident Command System, a clear knowledge of other response agency's capabilities, as well as clearly understanding the needed relationships in a crisis management/consequence management incident, is the key to an efficient, coordinated response.

There needs to be a designated official at the site of the response activity who is responsible for overall management of site safety. During the physical response activity, response personnel were not wearing a consistent set of personal protective equipment. There seemed to be no one who was making careful decisions on the protection of personnel for all response personnel. Instead, each participating agency made its own decisions, which resulted in inconsistencies. The most glaring example of these inconsistencies was when one team surveyed the exterior of the Fig County building in street clothed while another was in fully encapsulated suits (Level A.)

The local response organizations have competent and dedicated people, many of whom are volunteers. It is not reasonable to expect these volunteers to attend extensive schooling on every aspect of chemical, biological and radiological response. In addition, in a terrorist situation, the responders themselves may become targets. There needs to be a rapid response capability to assist the local responders when the problem goes beyond their normal training and experience. There is a need for a rapid assistance mechanism to assist the first responders in assessing the situation, and a rapid assistance mechanism to get technical help to the scene very quickly after a threat is identified. This is as much to protect the health of the responders as it is to address the threat. The newly commissioned CSD can supply much of this needed mechanism. In addition, there is a need for a rapidly available expert consultation service. A good model for this service would be the DOE funded REAC/TS function at Oak Ridge, TN. This service is geared to provide immediate medical consultation in the event of a nuclear accident. Similar capabilities for chemical and biological threats would be quite valuable, and such an assistance service should not be restricted to medical aspects of the problem. Responders need a central place to call for immediate advice before they enter a potentially life threatening situation.

In the Vigilant Lion Exercise there was significant interaction with the news media. This was intended to allow the news media to provide coverage of the exercise itself and to allow them to see how an actual incident would be handled. In future exercises and definitely for all actual events and/or incidents, a large staff of public information officers will be needed to address the significant number of media issues and requests for information. We placed the simulated media interactions late in the exercise after a Joint Information Center had been established. However we realized that much of the media coverage would occur during the initial response, and we did not simulate this press coverage. Instead, reporters covering the exercise were allowed access to first response personnel.

Overall, this exercise must be viewed as a success because of the problems that were identified and the learning experience it provided.. The fact that everything did not go as smoothly as planned provided many important lessons for the participating agencies. While it is apparent from the exercise that the capability to deal with a radiological terrorist event is in place, there is room for improvement in the coordination of the available resources. The Vigilant Lion Exercise Report, available soon from the Pennsylvania Emergency Management Agency and EPA Region III, provides many recommendations which should improve the response capability to actual terrorist incidents.

INTRODUCTION

Needs Assessment:

The United States is fortunate to have been spared the extensive terrorist activity that occurs in some parts of the world. The principle incidents have been the World Trade Center bombing, the Oklahoma City bombing and the Bomb at the Olympics in Atlanta. While this comparative lack of terrorist activity is a blessing, it also means that we in the United States are relatively inexperienced at dealing with the problem. Our experience is mostly in handling accidents and natural disasters, not deliberate acts of terrorism.

While all the skills that are used to address accidents and natural disasters are also useful in dealing with the results of a terrorist act, there are some aspects, which are unique. These include the need for technical experts in chemical, nuclear and biological threats, and the need to deal with the law enforcement aspects of a deliberate act. In addition, a terrorist act is a deliberate attempt to cause harm. The threat may be a combined chemical/ biological/ nuclear threat, or a threat from explosive devices, and the hazard may be deliberately concealed in order to cause more casualties. Working in such an environment requires a close coordination between many disparate technical disciplines as well as among agencies at all levels of government. This level of coordination is seldom required for accidents and natural disasters. This need for coordination is central to the Vigilant Lion Exercise.

While actual terrorist acts are rare in the U.S., the potential threat cannot be ignored. Worldwide, most acts have involved simple explosives, the notable exception being the Sarin subway attack in Japan. From our limited experience, and drawing on the experience of less fortunate countries where terrorism has become common, we can build a basis for the skills and resources which would be needed to address a terrorist threat.

Should a terrorist act strike the streets or rural areas of America, the first few minutes will be critical. The first people on the scene would be the local emergency medical services, firefighters and police. The situation would be chaotic and dangerous. For many injured victims, what these responders do in those first minutes could mean the difference between life and death. There is also a threat to these first responders, either from the primary terrorist act, or in the event the terrorist makes the responders a target. Thus there is a need to consider risks to the responders as well as risks to the public at large.

For nearly a year prior to the exercise, PEMA had been working with other agencies to help state and local agencies prepare to respond to terrorist incidents. DOD had delivered the Domestic Preparedness Training Program to the cities of Philadelphia and Pittsburgh and PEMA had delivered an NBC Phase I & II course and a nuclear/radiological terrorism workshop to the potential exercise participants. In the

course of this preparation, we determined that one major element lacking in Domestic Preparedness training was the adequate addressing of radiological material as a potential threat. In addition, historically, Explosive Ordnance has not been simulated in NBC exercises to any significant extent.

Finally, a new response element has been recently added to the available resources. The Pennsylvania National Guard's 3rd Weapons Of Mass Destruction Civil Support Detachment (formally the 3rd Military Support Detachment [MSD] Rapid Assessment Initial Detection [RAID] element). The 3rd CSD is one of ten federally mandated teams responsible for supporting local and state emergency response to incidents involving weapons of mass destruction. This was the first joint agency, large scale training exercise that the 3rd CSD actively participated in. They had little experience in dealing with the broad scope of support available from the local, state and federal agencies and none of these agencies had experience with the 3rd CSD. The exercise provided the opportunity to integrate this new resource into the response structure in the United States. Unfortunately, at the time of the exercise the 3rd CSD did not have their $1.5 million 2-person Unified Command Suite, which capabilities include KU Band, HF, UHF, VHF, HF Wideband, and UHF Satcom (.06 MHz – 800 MHz) frequencies.

In summary, the factors that led to the development of this exercise are:

– WMD training courses that were available did not adequately address nuclear/ radiological issues. The concentration was on chemical threats. Medical issues were also inadequately treated.

– Areas of responsibilities for radiological response were not completely clear, especially with the addition of the RAID element. The existing emergency response plans were not designed around a terrorist threat and it was not clear how well they were suited to this unique problem.

There had been few opportunities for a full-scale exercise involving a large number of participants and agencies from all levels of government. There was a plan on paper and a few tabletop exercises had been conducted by various county and state agencies. What we did not know is how the various agencies, in a large-scale, field exercise environment, would perform when equipment was mobilized and people actually had to work together with other response and non-response personnel that they normally do not work with.

– Because of a canceled exercise in another location, resources were available to conduct the exercise.

EXERCISE PLANNING –

Scope of the exercise:

The exercise included full-scale response to a simulated incident at a fictitious county in Pennsylvania (Fig County). Two "crime scenes" were simulated. This was done using unused buildings at Fort Indiantown Gap. The Fig County office building was a two-story brick building that was temporarily unoccupied at the time of the exercise. The home of the terrorist was simulated in base housing. In both cases, entries were made using actual protective clothing and under real-time conditions. Six cottages were set-up as residences so that surveys and interviews would have to be performed. Most of the physical problems, which would be encountered in a real event, were included in the exercise. Realistic dispersion devices and booby traps were set to challenge the participants with a realistic situation.

This exercise was designed to test the concepts and procedures required for local, county, state, and federal government agencies to respond to a weapon of mass destruction (WMD) event in the Commonwealth of Pennsylvania. The Vigilant Lion exercise concentrated on local response, notifications, crisis management, consequence management, criminal (terrorist) investigations, and interagency coordination and communication.

Prior to the exercise, each participating agency developed its individual objectives to be accomplished and performance measures for its response to the incident. Evaluation of these individual Agency objectives is not included in this report. It is left to the individual Agencies to assess their individual performance and any need for improvement. Instead, this report will focus on the overall exercise objectives in terms of overall response effectiveness and coordination and various activities as a whole.

This full-scale exercise involved more than 300 participants representing 40 local, state and federal emergency response agencies that were tasked with managing hazardous materials, explosive ordnance, emergency management, law enforcement and emergency medicine response activities. Except for the meetings in preparation for the exercise, many of these agencies had never worked together before. In addition, the radiological threat was somewhat unfamiliar to the hazardous material teams, and there was a need to address the threat of explosives and booby traps, which were unfamiliar to the radiation experts. This provided an opportunity for a significant learning experience, and also accurately reflects the situation that would occur if a real incident were to happen.

Logistics:

Location:

This exercise was the first large-scale civilian counter-terrorism exercise where terrorist response was realistically simulated. In addition, a number of participating agencies had never worked together to this extent and knew little of each other's mission and capabilities. Knowing that the exercise would involve a large number of responders converging on one area, we wanted to make sure that we had a big enough "play area" that would suit our exercise needs but not pose safety issues to the players or the general public. At first, some of the agencies were in favor of conducting this exercise in the City of Hershey/Derry Township, an area with a population of 19,000. The state police academy and a major hospital were in close proximity. However, the needed approvals would have been quite difficult. In addition, conducting a large-scale realistic exercise in a public setting would have generated significant public concern. There was a real possibility that the 911 lines could be tied up with people inquiring about the exercise. After considering the issues involved, we decided against holding an exercise as large and complex as this in a heavily populated area.

It was finally decided that we would approach Ft. Indiantown Gap Military Reservation, the home of the 3rd Civil Support Detachment, to hold this exercise. A two-story, brick building, unoccupied at the time due to a change of command (the post had recently been turned over to the National Guard and the state was handling the paperwork to accept ownership), was obtained. This building simulated the 550-employee FIG city/county office building. The selected building proved to be an excellent location as the incident was more manageable in that there was limited interruption, disruption, distraction, or conflict with the civilian community. Since Lebanon County EMA, based in the City of Lebanon, was participating, we asked them to invite the Good Samaritan Hospital and associated EMS units. The timing could not have been better. The Good Samaritan Hospital, City of Lebanon had just completed construction on a new hazardous material wing that was designed to care for multiple chemically and/or radiologically injured or contaminated victims and wanted to test their in-house site security protocols and the facility's effectiveness to care for these individuals in the event of a hazardous material incident.

Agreements:

Mutual Aid/Assistance agreements were identified and agreed upon early on in the exercise planning stages. Issues such as overtime, time off, union involvement, were resolved by each participating agency.

Communication:

Communication flexibility, security, and compatibility were issues that faced exercise organizers but those issues were surprisingly resolved rather quickly. It was necessary for the exercise controllers and evaluators to communicate effectively so those exercise objectives could be evaluated without restricting exercise flow and play. HAMMER ACE, the United States Air Force's contingency communication package, based at Air Mobility Command's Headquarters, Scott AFB, Illinois, was contacted by DOE RAP Region 1 to see if they could support the communication needs and to technically assist communication technicians assigned to the exercise. HAMMER Ace provided fourteen encrypted VHF Motorola Saber handheld radios, one base station and one VHF repeater to support the RAP Region 1 & 2 communication needs. They were able to use one of the pre-approved US and Providence allocated frequencies for HAMMER ACE missions. The Pennsylvania Urban Search and Rescue Task Force (PA TF-1) provided nineteen UHF Motorola HT-1000 hand-held radios with six available frequencies and two UHF Motorola repeaters for use by safety, controllers, evaluators, and the invited press.

Feeding:

A contract was negotiated between the Lebanon County Emergency Management Agency and the FIG Community Club for two lunches. These lunches were provided through a PEMA grant and were to feed the volunteer participants and LEMA personnel. State and federal agencies agreed to pay the travel costs of their participating personnel.

Documentation [Video, Still Pictures, Written]:

DOE Region 1 provided two videographers to tape exercise activities on both days. DOE Region 1 produced a 20-minute radiological response training film of the exercise to be used for first responder training. The Federal Emergency Management Agency (FEMA) will be using this tape during the FEMA S302 Advanced Radiological Incident Operations (ARIO) Course, June 11-16, 2000, at FEMA's Mount Weather Emergency Assistance Center, Bluemont (Berryville), Virginia.

Media Exercise Coverage:

The exercise design team wanted to provide the media the access to adequately cover the exercise as it unfolded. A Press Kit was put together and two press briefings were held, one two weeks prior, and one at 9:30 a.m. on day one of the exercise. The Department of Military and Veteran Affairs took the lead on coordinating the briefing in the VIP/Press Building established for the exercise. Before the response activities were initiated at Ft. Indiantown Gap, the media pool were taken through the "FIG City/County" Office building to view first-hand what the responders were going to be facing. They were then taken to a safe distance, under tentage, to view the initial response activities. PSP participated in a live news briefing/interview on Day 1 with Reading, PA, radio station WEEU, 830AM.

Two media information meeting dates were established. It was decided that the PEMA Press Secretary would take the lead on the dissemination of preliminary information regarding the exercise. PEMA Operations and Training designed the various press releases, which were then approved by PEMA's Press Secretary. Due to the unforeseen "real world" hurricane events that occurred on day one of the exercise, the Pennsylvania's Department of Military and Veteran Affairs Press Secretary took the lead for on-site arrangements to ensure the media had the information that they needed to adequately describe the unfolding event. The Pennsylvania Department of Environmental Protection provided two working PIO "players" for both days.

Eight television crews, ten print media observed and reported on the exercise to include a team of reporters from Sweden. Three stations provided live noontime coverage of the event on the first day. One radio station in the City of Reading did a live interview with the PA State Police. Additional information releases were mailed or e-mailed to numerous emergency management, environmental response, military, fire, law enforcement and medical publications throughout the United States. Media briefing times were set and first-responder spokesmen were identified to assist the media coverage. A few agencies provided media players while other agencies provided press representatives to cover the exercise event itself.

Role-Players:

Lancaster County EMA and Civil Air Patrol's Pennsylvania Wing were asked to find "actors" to be used as city/county employees and family members for two of the scenarios. Both organizations were able to provide them plus injects for the family members.

Props:

During the exercise development course participants found out how sensitive it is to have an agency make an exercise "device." Participants feared that if they made the device, it would than become "classified" items, and would not be available for exercise use. FBI, DOE, and DOD controllers resolved this issue so that a Radiological Dispersal Device (RDD) would be available for hazardous material team and explosive ordnance disposal recognition and play.

Air Support:

DMVA, CAP, DOE Region 1 and DOE HQ coordinated the air logistic coordination for the two Aerial Measurement Assets (Beechcraft B-200 and Bell 412) to operate in FIG airspace in and around the exercise play area.

Staffing:

Each organization provided at least one controller and one evaluator to support the exercise oversight. All controllers were on one radio frequency and the evaluators on another. Exercise support from PEMA staff was limited due to the Hurricanes Dennis and Floyd staff commitments. The Commonwealth of Pennsylvania was granted three Presidential Emergency Declarations through FEMA that in turn led to the opening of one Disaster Field Office and seven Disaster Recovery Centers in fifteen counties. At one point in time, there was a serious threat that PEMA might cancel the exercise. However, the PEMA Director agreed to let the exercise move forward with the limited amount of PEMA staffing so that other participating agencies would not lose this excellent opportunity to test their WMD response capabilities.

Exercise Support Staff Credentials:

Each agency provided a copy of their ID tags so that the Pennsylvania State Police and Ft. Indiantown Gap Police Department had a copy for security purposes. In a major incident, you would not have the luxury to do this but we needed this for safety reasons. Controllers included breach of security injects to keep the security net honest.

Waivers for Volunteers:

When Ft. Indiantown Gap was under federal ownership, a waiver was required for volunteers to participate in exercises on post. The wording was slanted more towards soldiers and not emergency volunteers. Requests were made to the state agencies to find out who the agency's controllers, evaluators, players, and media personnel would be to provide a "duly enrolled" roster to the post commander's exercise designee. Each agency's legal counsel reviewed civil liability and worker's compensation issues.

Facility Usage:

Once the scenario was written, and the exercise play was formulated, exercise planners needed to plan for pre-exercise briefings and enough buildings to accommodate the anticipated building requests from players. Exercise planners had to do this in advance as to lessen the daily workload on the post's Directorate of Logistics. A total of 15 buildings were made available to the exercise players, controllers, evaluators, and VIPs/Press.

Exercise Constraints:

The Ft. Indiantown Gap leadership wanted to make sure that all buildings were turned back to the post in good condition. No incendiary devices were allowed and no damage could result from their use, e.g. knocking in doors, breaking windows for entry, etc. In addition, exercise planners needed to demonstrate to the post commander what security and traffic flow planning measures were in place. It was agreed that Rte 26, Fisher Avenue, would be shutdown no earlier than 9:00 A.M and no later than 3:00 P.M. as to not impede post employees from getting to or leaving their place of employment. Exercise planners also needed to notify major employers and the nearest residence outside

the post that this exercise would be taking place. The township officials adjacent to the post were also notified and participated in the exercise.

Budget:

Originally, this exercise was scheduled to occur elsewhere in the northeast. After it appeared that some insurmountable logistical issues could not be resolved, the exercise was cancelled. DOE RAP Region 1 approached the Pennsylvania Emergency Management Agency to see if the Commonwealth would be agreeable to host the exercise in Pennsylvania if financial arrangements could be agreed to. A few of the state agencies and the Lebanon County Emergency Management Agency thought that this would be a great opportunity to exercise many facets of the emergency management and radiological protection system components, therefore, they agreed to pursue internal avenues to conduct the exercise. DOE Region 1 was able to fund three exercise-training sessions (Exercise Design, Exercise Controller/Evaluator, and Search Response Team). Associated per diem and lodging costs were paid by course attendees' agencies was more palatable than one agency bearing all the costs. In addition, DOE Region 1 funded some of the necessary props (exercise identification caps, video capture, threat assessment, building rental, communication support, and Aerial Measurement System flight time).

Concept of Operations:

Objectives - Overall:

Each participating organization was asked to provide objectives prior to the ORISE Exercise Design Course that was presented April 6-8, 1999, at the Pennsylvania Civil Air Patrol Wing Headquarters building, Ft. Indiantown Gap, Annville, Pennsylvania. The exercise objectives list, in its entirety, can be viewed in Annex B. The exercise scenario and framework was then built around those objectives to ensure that each agency had an opportunity to play out and evaluate those objectives.

Simulation:

Exercise designers did not want to limit the scope to a tabletop demonstration. They all wanted an exercise, which would involve full-field mobilization of assets in as realistic, a situation as was possible. To do this, a field setting was chosen which would allow for realistic exercise play. The exercise included full-dress response to a simulated incident at a fictitious county in Pennsylvania (Fig County.) Two "crime scenes" were simulated in real buildings, the Fig County office building, and the home of the terrorist. In both cases, entries were made using realistic protective clothing and under realistic conditions. Most of the physical problems, which would be encountered in a real event, were included in the exercise.

Exercise play involved the activation of emergency operations centers and the deployment of personnel and air and ground assets from all levels of government.

Vigilant Lion also involved the Department of Energy's Radiological Assistance Program (RAP) and the Pennsylvania National Guard's 3rd CSD. Very few notifications and response times were simulated. The evaluators wanted to confirm that estimated times in the exercise time line were accurate. All participating agencies wanted a good template for planning and checklist purposes for a WMD response to back to their own organizations.

Exercise Development:

Exercise Development Staff Training:

Exercise Design training was supplied by the Department of Energy (DOE) for the exercise development team. A list of the individuals on the design team and who contributed to the development of the exercise are listed on page 43. The DOE Exercise Design Course was conducted by Oak Ridge Institute for Science and Education (ORISE) and built on what the exercise design team had put together prior to the course. The purpose of this course was to train exercise developers on their responsibilities and to provide the basic understanding and skills necessary to develop an emergency management/ preparedness exercise. The training focused on the exercise requirements, and the design, development, conduct, and evaluation of a full participation exercise. Exercise developers were than able to develop and integrate the components of an exercise package. During the course, attendees developed the exercise purpose, scope, objectives, limitations, prerequisites, scenario and formulated a time line. This training greatly improved the quality of the exercise and we recommend it for others planning an exercise of this scope and complexity.

Evaluator Training:

On August 11-12, DOE Oak Ridge Institute for Science and Education (ORISE) provided a two-day exercise Controller and Evaluator course that culminated with a Leadership Tabletop Exercise. The first day discussed the evaluation and control components. It set the groundwork for the development of exercise evaluation criteria, the evaluation organization, and the proactive determination of the final report form. In addition, the attendees were able to identify and develop the control organization, simulations, and control logistics. Attendees refined the exercise objectives and Master Scenario Events List (MSEL), initiated formalization of Mission Essential Task Listings (MTEL) items, and prepared for the Leadership Tabletop. Prior to this course, participating agencies were requested to bring key decision-makers to this tabletop exercise. Participating agency key decision-makers were provided two scenarios: one chemical and the other radiological. It was decided to provide two scenarios, closely paralleled to our scenario, but not too close as to "tip our hand" on the actual scenario developed. DOE ORISE did an excellent job in the facilitation of the two tabletop exercises which provided the future Vigilant Lion Exercise Evaluators and Controllers an insight on what areas needed to be more defined and what areas would be potential bottlenecks.

Player training:

The exercise involved over 300 players from over 40 different organizations. The players included a wide variety of well-developed skill levels in a wide variety of fields including hazardous material response, law enforcement, bomb disposal, health physics and radiation safety, biological weapons, and operations and command. PEMA held training sessions for first responders on basic radiation response, though these sessions were not given specifically for this exercise and were available to responders statewide. This was desirable because the exercise would be primarily radiological in nature and local response teams are typically not trained in depth on radiation. For most players, no exercise-specific training was provided. We anticipated that the training they already had would be sufficient. Key decision-makers from each agency attended a tabletop pre-exercise described below. If there were to be a problem because of inadequate player training, it would become a lesson learned from the exercise. It would demonstrate a weakness in our ability to deal with terrorism and would need to be remedied.

Key decision-makers table top pre-exercise:

A tabletop exercise for the key decision-makers was held on August 12, 1999. This session was intended to facilitate the exercise coordination when the field exercise was conducted in September. There was no real effort to segregate the players from the exercise planners for this tabletop exercise. The only objective was to be sure that each participating agency knew its role in relation to the roles of the other agencies. The intent was to avoid unnecessary confusion at the field exercise. Had this pre-exercise tabletop not been held, the difficulties inherent in establishing agency coordination may have prevented many of the other exercise objectives from being achieved.

Exercise Scenario: (Full Scenario – Annex C)

The First Day:

The following sequence of events was developed as the exercise scenario:

On Monday evening, September 27th, a disgruntled ex-employee places a radioactive dispersal device on the Fig County Office building's HVACC intake vent located on the roof (Building 19-76). Approximately 550 Fig county and city employees work in this two-story building. This device dispersed radioactive material throughout the building through the use of a small fan connected to a timer. Fig City has an estimated population of 650,000 and has two trauma hospitals.

By Wednesday, September 29th, at approximately 4:00 p.m., office workers from the Fig County office building are arriving at the local hospitals (Good Samaritan and Lebanon VA Hospitals) and secondary care facilities. Employees are complaining about respiratory problems and skin irritations. Anticipating more patients than one hospital

can handle, Good Samaritan institutes its Mass Casualty/Disaster Plan. Based on preliminary data, state and local health officials have pinpointed the origin of the skin irritant to the Fig County office building. The local municipality declared a "State of Emergency" upon consultation with county officials.

The local Fig County hazardous materials team, which has been certified by the state, along with Fig County health officials were dispatched to the office building and to the local hospitals. The building's evening shift (approximately 50 people) are evacuated by local police and staged at a nearby building. Night shift employees were instructed to stay home due to an unknown chemical release in the building. As a consequence of the hazardous materials team being dispatched, the State Emergency Operations Center is then notified and briefed on the current situation, as required under the Pennsylvania Emergency Information Reporting System (PEIRS) criteria. Lebanon County relays their intentions to PEMA regarding an issuance of a county declaration. At this point, the Pennsylvania Department of Environmental Protection, Pennsylvania Department of Health, and Pennsylvania Department of Labor and Industry are also briefed on the magnitude of the "hazardous material" incident.

The HAZMAT Team arrived to find a heating and air conditioning van parked adjacent to the building with a ladder going to the roof. The HAZMAT team discovered a suspicious device and note on the HVAC System located on the roof. The Local EOD team was requested to the scene.

An anonymous phone call was then received by the county 911 center that "radiological material was used in the county office building and that more radiological and explosive devices can be found at a residence somewhere in Fig City". This information was then followed by a fax that referenced the same.

The Second Day

All federal response agencies arrived and the FBI became the lead crisis management agency and established a Joint Operations Center. After several hours, the Department of Energy's Aerial Measurement System unit, Department of Energy's Search Response Team, PANG 3rd CSD, Pennsylvania Department Environmental Protections Bureau of Radiation Protection and Emergency Response offices, and the Federal Bureau of Investigation's hazardous materials element located additional radiological material in a residential area.

After bringing in more sensitive equipment, the SRT located the unknown radiological material on Lazy Eye Street at a rundown, two-story dwelling using a vehicle-based search to identify the specific house, then by a search on foot, located the device. The SRT members detect high radiation readings from the radiological material from outside the house.

As local, state, and federal law enforcement officials entered the dwelling on Lazy Eye Street, additional explosive devices were located inside, along with subversive

documents and publications that include instructions to build additional explosive devices. Booby traps are both expected and identified in the house. After rendering safe the secondary and tertiary devices, the DOE representative on scene reported that a second RDD is located inside the dwelling. The RDD had a two-hour timer which appeared to have been momentarily activated.

Termination of the exercise occurred when it was demonstrated that a majority of the exercise objectives were completed.

EXERCISE RESULTS:

To present the results and lessons learned form this exercise, a comparison between expectations and the results of the exercise play will be provided. We recognize that many actions we would like to see or we expected could not happen due to time constraints or other exercise artificialities. We have tried to account for these limitations in interpreting the exercise results as presented by the individual evaluators.

Expectations (based on the scenario and individual Agency goals):

The key decision-makers participated in a tabletop exercise at the Civil Air Patrol Wing Headquarters building. This pre-exercise was to be sure the interactions and command structure was well rehearsed and would go smoothly during the two-day full-scale exercise. Because of this opportunity for rehearsal, the exercise design group anticipated a smooth transition from the Incident Command System to a Unified Command Structure on the first day. They also thought that an organized transition to an operational Joint Operation Center (JOC) and Federal Radiation Monitoring and Assessment Center (FRMAC) would take place.

The exercise design group expected that each agency would have 24-hour 7-day coverage availability and would be deep enough to handle manpower staffing for the Incident Command System / Unified Command System, Joint Operation Center, and Federal Radiation Monitoring and Assessment Center. Due to Hurricanes Floyd and Dennis, the Federal Emergency Management Agency's Regional Operation Center and the State's Emergency Operations Center partially activated for the exercise. This limited State participation off-site to some extent.

There had been some thought as to whether hospital Emergency Medical Personnel would be able to identify and cluster symptoms from "walk-ins." The exercise design group thought that medical personnel at the hospital might or might not be able to identify the cause of the symptoms but would at least be able to identify the "sick building." We knew in advance that the symptoms presented to the hospital would not come from a radiation exposure, but wanted to give them a sudden cluster of ER patients with non-specific symptoms who worked in the same building to see if this would be recognized.

The exercise design team thought every response organization would use the same radiological surveys units (R, mR, etc.) and if not, would be able to convert to both SI units and old "U.S. radiation units of measure.

The exercise design group thought that the FIG on-scene Unified Command System would be prioritized in the following format: (most important to least important):

1) Responder Safety
2) Lifesaving/Victim Removal
3) Incident Site Control – Zone Determination
4) Secondary Device Sweep – Inside facility
5) Public Safety
6) Evidence Gathering/Preservation

Local Response Expected:

As patients were rolling into the Good Samaritan Hospital, we expected that some on-scene contamination would occur, symptomology review and interviews would be conducted promptly which would lead to suspicion of the FIG City/County Office building. Local federal support would come from the Lebanon VA Hospital via a MOA with Good Samaritan and the VA. Once notification to Lebanon County EMA, PEMA, PADEP, and PA Health were made, we thought that the local law enforcement agency in FIG City would be overwhelmed quickly. FIG PD presently has 2-3 officers on duty at any time. It was anticipated that the FIG FD would respond quickly and set a safe perimeter and wait for the arrival of the county hazardous material team. Incident Command at FIG would transfer from the Police Chief to the Fire Chief to the Lebanon County Emergency Management Coordinator.

State Response Expected:

Exercise planners anticipated a quick response by PA State Police (traffic control/LE Backfill) and PADEP Emergency Response Team (hazardous material technical support) which then would move the command structure into a Unified Command System. It was not clear when and at what point the scene would be considered a "crime scene/terrorism event" which would generate the FBI Field Response. Once the scene started to look like a crime scene, it was envisioned that the State Police would become the Lead State Agency (still under Unified Command) and the FBI Field Office would be contacted and then assume command once on-scene. Local and State emergency declarations, if made, could come at any time; with a fluid exercise scenario, we were not sure when that would happen. This determination was made concurrently by PA State Police, FBI, and LEMA at 12:20 p.m.

Federal Response Expected:

The federal involvement on scene would begin once the scene was considered a crime scene, which would trigger the involvement of the FBI, DOE Region 1 Radiological Assistance Program, EPA Region 3, and FEMA Region 3. FBI-HMRU coordination with evidence collection resources would occur.

Observations: (based on evaluator comments)

The evaluators recorded the following observations. **It must be noted that the evaluator comments provided in this document in no way imply a lack of competence on the part of any of the participants. Exercise evaluators as a rule tend to find more wrong than right, and the underlying cause of a negative observation is frequently due to working new faces from strange agencies or to artificiality's of the exercise itself rather than the fault of any participant.** While it would perhaps be kinder and gentler to edit out negative observations, we felt the need to present the evaluators comments in full. The reader should keep in mind that, in spite of seemingly negative comments, **the participants all did their jobs well and to the best of their abilities!** Where there was a significant event, which leads to a significant lesson learned, an italicized comment will follow the evaluator's comments. Exercise lessons learned are based on the input from many evaluators and interpreted in light of the overall exercise.

HOSPITAL:

Exercise "victims" were briefed and costumed at 0630 at the Civil Air Patrol Headquarters building at Ft. Indiantown Gap. They were then transported to the Good Samaritan Hospital where additional evaluators and controllers were on station [to include an Office of Mental Health (state) representative]. At 8:00 a.m. victims (5) started walking into Emergency Department patient entrance, spaced at about 3-minute intervals. Patients registered complaints with triage nurse. Two of patients were initially triaged back to "chairs" to wait. There was some confusion among staff as to which patients were exercise patients since they mixed in with real patients and were not wearing specific "exercise identification." (Evaluators and controllers were wearing appropriate caps.) Intake appeared to be handled smoothly although the exercise evaluator did note that the postal worker may not have been identified as an exercise patient until rather late in the time period. Also, at about 08:30 a.m., the Emergency Room physician expressed concern for the confidentiality issues of other patients speaking to the triage nurse.

Five patients may have doubled the regular patient flow but certainly did not stress the staff in any manner. At 0840 and 0850 two injects were given to the hospital regarding employers, located in the FIG City/County office building, reporting that 30 employees had called off sick with flu like symptoms and that they had heard some may be at Good Samaritan Hospital. Both employers reported that those at work were coughing. Both employers asked for an update on their employees and stressed their

concerns." Reply was that the employers needed to provide names of anyone they were concerned about, and they were not aware of any particular illnesses e.g. flu at this time.

At 0905 Controllers consulted with the ER Physician and Emergency Department (ED) Director and requested that the ED activate its Disaster Plan for the purposes of following the exercise on time. The plan was activated; personnel responded and were thoroughly briefed about the incident. Their triage and treatment of patients presented was appropriate and efficient. With the Good Samaritan Hospital's pre-established objectives were being observed, the "patients" were released from ED and proceeded back to FIG. Patients were then placed in the FIG Building as workers to be found, removed, and decontaminated for the FIG City/County Office Building Scenario. Good Samaritan personnel responded and were briefed as to the exercise information.

"Early" identification of a pathogen or hazardous material is not likely to happen in a Hospital Emergency Department due to the low index of suspicion and high focus on individual patient management.

Scenario shortfalls:

The incident began at the Good Samaritan Hospital in Lebanon, PA where the players, evaluators, controllers knew information, and Hospital Staff; however, some information was either changed or misunderstood. Things did not start and continue exactly as planned. Minor details regarding patient symptoms/conditions and so forth made a difference in the beginning of a critical exercise. Once the scenario hit its anticipated rhythm, the Lebanon County E.M.A. did an excellent job of overcoming some obstacles created by the information snag.

There were a few times when the scenario stalled, or nearly so. At the onset, at the Lebanon Hospital, the initial findings of the ER Staff were not of sufficient severity to justify notifying civil authorities. Time elapsed before an inject was generated to allow the scenario to proceed. Several times, observers cited instances where certain things were supposed to happen to trigger the next stage in the operation. When this did not occur, a lengthy delay resulted until a controller was forced to freelance to move the timeline along.

Insufficient patients were available to actually stress the capabilities of the ED and activate the emergency plan. Because of the nature of emergency medical care, it was suspected that the Emergency Department would have had to have been totally overwhelmed (20-25 patients) before staff would have suspected a common denominator to be found.

Hospital/Medical facilities must be prepared to participate (if possible) in the exercise as not to compromise regular patient care. Even though Controller/Evaluators are near the "victims", the victims must also be clearly marked as not to be seated with real-world patients. This scenario did test a triggering of various diagnosis support from different departments within the hospital itself.

Hospital personnel seem to have a rapport with Lebanon county EMA probably as a result of interaction with emergency services on a regular basis. Any reporting chains or request for assistance during any kind of emergency would probably be directed toward the county EMA. It was noted that additional resources were not requested from the contiguous counties because a sufficient number of injects and symptoms were not received to force this outcome. Exercise controllers and evaluators thought that this might occur directly by the county. In addition, the State EOC was more focused on hurricane flooding support so the situation analysis section injects in this area were not entered into the state's exercise message traffic flow nor followed up on. This "real-world" focus also led to the delay of critical exercise notifications that would have mobilized or activated many of the state resources earlier on in the exercise on Day 1.

FT INDIANTOWN GAP

A cumbersome transfer of command occurred from the Incident Command System to the Unified Command System. Although transition from the Unified Command System occurred to the Joint Operations Center, it was not as smooth as it could have been. The Federal Radiological Monitoring and Assessment Center knew of the transfer of command but did not acknowledge the unified command presence within its own established facility. ***(Again, the readership must realize that <u>this was not a graded exercise</u>!)***

<u>Incident Command</u> -

Incident Command was immediately established upon initial arrival of emergency response forces, and was maintained (in some form or another) throughout the scenario. Initially, there was a delay in setting up the Incident Command System attributed to 1) response personnel identification problems, 2) congestion at the scene, 3) an unknown amount of resources on-site, enroute, or on standby, and 4) the time-compression reaction time written into the scenario. Usually, even in the biggest of "normal" hazardous material incidents, there is some "catch-up" time for putting together the Incident Command structure. Responders were not afforded this luxury in this scenario. This lead to a period of disorganization. The command structure worked through this period of information and resource overload and started to gel really well at approximately 1:00 p.m. once the recognition of roles and responsibilities were sorted out by the Lebanon County EMA staff and local and state support agencies.

The transfer of command process should have been stronger, especially prior to the establishment of the JOC. Transfer of command is a very formal process. It must be clearly understood by both the gaining and relinquishing parties, as well as all operational elements in the incident, that a transfer of command has taken place. Responders were questioned repeatedly to determine if they were aware of who was in command. At no time could any responder identify the command structure beyond his/her immediate supervisor. In most cases, even that supervisor was unclear on the command structure. Transfer of command and the basic command structure must be communicated effectively to all responders through radio communications and periodic briefings.

Upon arrival of Lebanon County Hazard Material team, the FIG fire chief appeared to concede command to the Lebanon County EMA coordinator by default. Personal observation and questioning of the players on the scene indicated that this individual was effectively acting as Incident Commander long before any formal transfer of command took place. Again, if an Incident Commander chooses to transfer command, he/she must make the transfer clear. Responding command personnel, especially those with technical knowledge crucial to mitigation of the incident at hand, must resist the strong temptation to usurp, however innocently or unintentionally, command functions until a formal transfer of command has been affected.

While acting as Incident Commander, the Lebanon County EMA Coordinator became too involved in managing the tactical aspects of the incident, specifically the operation of the hazardous materials team. Emergency responders tend to be very 'hands-on' people, reluctant to delegate to subordinates, especially when we possess great technical knowledge and expertise on the subject in question. This invariably leads to problems with span-of-control, division of labor, unity of command, and organization of the command structure. Incident commanders in this situation must either delegate tactical issues to subordinates, confining themselves to the strategic goals and incident organization issues that are the proper domain of the IC, or decline to accept overall command, remaining in charge of their particular tactical element under some other incident commander.

A more formal command structure needed to be established much earlier in the incident. The Incident Command System provides for such a structure to insure that no commander is overwhelmed by the incident, so that agencies coming in on the incident at a later point understand the response structure and their role in it, and so that a common terminology vocabulary that all responders can relate to is established. This needed to begin very early on in the incident, especially when it can be reasonably anticipated that agencies will be responding that are unfamiliar with the terminology and structure of the Incident Command System. This is especially true when such agencies are highly likely to eventually become the 'lead' agency for the incident. Failure to have such a structure in place will increase the chances that such an agency will establish its own system, or, worse yet, that parallel command structures will be established. This actually appeared to occur for a short time between the arrival of significant State Police resources and the arrival of the FBI and establishment of the JOC. If a good system is established and functioning well upon arrival of such agencies, they are far more likely to 'plug themselves in at the appropriate place, and maintain a continuity in the incident command structure. The command structure eventually established, although certainly functional, bore little or no resemblance in either structure or terminology to the Incident Command System that first-response elements are trained in and use.

Initially the Gap Fire Department Fire Chief assumed command. However, neither a command post nor a hot zone was properly established. When command was transferred to Lebanon EMA, neither did they. As a result, the commander was rapidly overwhelmed by arriving responders looking for work, the decontamination line was

placed some distance from the hot zone, and at least one large conference took place in the hot zone. In addition, the 3rd CSD WMD established a redundant decontamination line even farther away. It should be noted that they too need to work under the Incident Command System, and ultimately under the Incident Commander. Not only do they work directly for their own CSD WMD commander, but in coordination with the civilian Incident Commander. Most times, responders queried by evaluators had no idea that was in charge, where zones and perimeters were established, or where the Command Post was located. The situation eventually got sorted out, but only after a considerable time elapsed. The "play area" was not clearly defined, and as a result a number of vehicles operated by evaluators and observers wound up in the hot or warm zone. This in part displaced the decontamination lines"

Incident Action Plan/Documentation:

The incident could have been documented better. It was difficult to determine if there was any concerted effort to create an incident log; there did not appear to be. Because a Documentation Section was not established, the command and control structure evolutions were not charted. This shortcoming contributed materially to the communications problems alluded to previously. There appeared to be no documented Resource Status (RESTAT) or Situation Status (SITSTAT) accessible to all players.

Complex incidents must be properly documented. SITSTAT and RESTAT reports, and an organizational chart showing the existing command structure should be drawn, posted in the Command Post or JOC, and kept current. A designated Scribe should keep an Incident Log. This is especially important in incidents like this, where agencies are in coming, agency representatives may be changing as higher-ranking individuals arrive, and long duration with the possibility of shift changes is anticipated.

The Incident Commander must insure that all critical 'stakeholders' (such as the municipal government) are represented in the unified command structure. Information needs to flow downhill as well as uphill and across levels. Agencies did not communicate well between levels.

Exercise Finding: It is important that incident commanders deal with the big strategic picture, delegating responsibility for implementation of tactical objectives to subordinate elements of the command structure. This is especially crucial in the first stages of in an incident. It is impossible for an incident commander, no matter how gifted, to attend to tactical details and simultaneously be thinking 'an hour or two ahead of the incident' as is required of a strategic commander. Command needs to be established early on, and clearly marked. All operational personnel must know whom, or at least where, the Command Post is. Zone and site security must be rigidly enforced, to avoid spreading contamination or exposing people, and to keep command from getting overwhelmed.

The Incident Command/Unified Command structure as it evolved may have looked like the one provided below (Figure 1). This diagram was added to allow readers of the

document the opportunity to see what faced the Command Staff during the different crisis and consequence management response phases of the exercises.

THE ICS ORGANIZATION

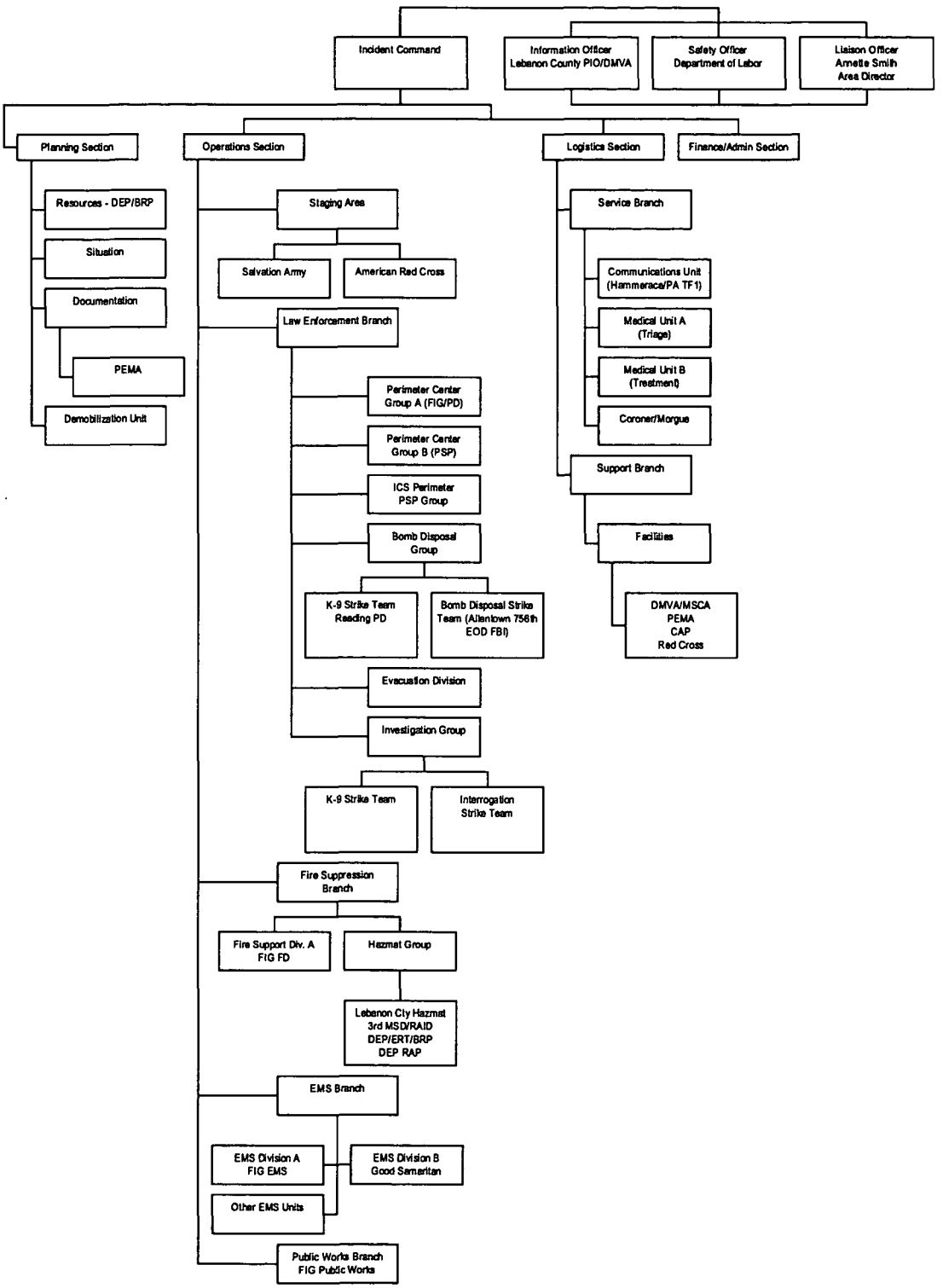


Figure 1

Unified Command

The transfer of the Incident Command System to a Unified Command System occurred at 11:00 a.m. from the Mobile Command Post to Building 95 where the PA State Police had configured the building for coordination of the response with the now multiplying response organizations. The formalized **operational** transfer was cumbersome because many of the key-decision makers, such as the hazardous material representatives and staging officers, were engaged in response and support activities.

The Unified Command System was in place on Day 1 but was not well established on Day 2. There still existed a level of interaction between the response organizations but this interaction was not based within a strong command structure. The command structure was a by-product of the command level personnel present. These individuals were of a personality and temperament that facilitated this coordination despite a somewhat fragmented unified command. Having individuals like this at the incident may not always be the case.

Exercise Finding:

The Concept of Unified Command must be further refined in an operational sense. Allied professionals from all disciplines who are tasked to respond to emergencies like this must receive training and familiarization with the Incident Command System as promulgated by the National Fire Academy. This is the terminology and command structure that will (or should) have been established by the local (municipal and county) first responders well before the arrival of many of these agencies. Understanding the language and structure of the system in use will permit a smooth integration of efforts and a likewise smooth transition of command responsibility as called for by the dynamics of the incident.

Training for all responders in the implementation and use of the Unified Command incident management structure must be developed and made available. Unified command worked, in part, at this incident because the command-level personnel of the involved agencies were of a personality and temperament that facilitated unified command. That may not had worked together on other large-scale response activities; this may not always be the case. Training in unified command is critical to making unified command a workable incident command system under a variety of circumstances and conditions.

Plans for the rapid and effective communications of information up and down the chain of command and across the full spectrum of responders/involved agencies must be quickly devised and implemented. As much of this as possible should be done by pre-planning and exercise. At incidents, commanders must insure themselves that information on incident status and action plans are fully communicated (with considerations for security issues) to all responding agencies.

Command Post Facilities

For this exercise, the organizers pre-arranged buildings that would be used as command posts and other purposes. In a real incident, such arrangements would have to be made on the spot and it is more likely that sufficient space might not be available at a real event location. In spite of the pre-arranged space, the various command facilities were too crowded.

There is a need to issue credentials to response personnel so that the only occupants of critical facilities are those who belong there. Credentials were a problem for the changeover from the parking lot Incident Command Post to the Command Post in Building 95. There was also a problem with the number of people in the Joint Operations Center (JOC – See Figure 2) and credentialing was again a problem. Response individuals presented agency specific identification badges but were not initially allowed entrance into the facility. Some organizations had neither vests nor badges. It was suggested that signs should be developed to help identify command structures so that these command and control structures can be assisted by essential support agencies.

Mobile Command Posts such as those provided by EPA are extremely important resources. It would be very worthwhile to include an inventory of the available mobile facilities in local emergency plan documents. This would not guarantee their availability, but at least the responders would know from whom to request these resources.

Joint Operations Center Operations:

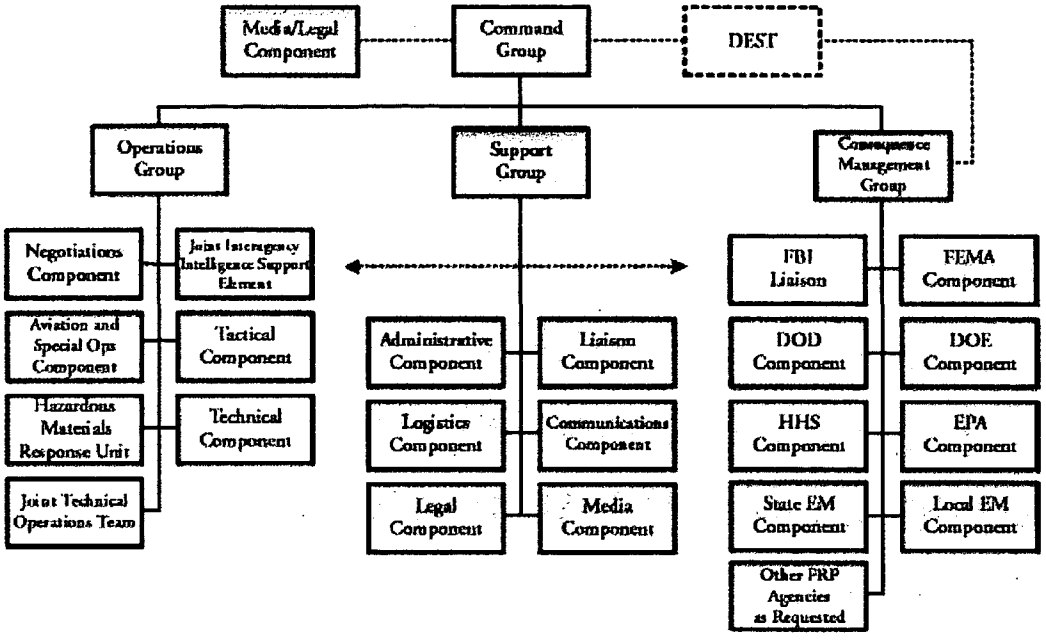


Figure 2

The transfer of command from the Unified Command structure occurred at 13:00 hours, however the transition was not seamless. At this stage of the exercise, a number of FBI agents needed to be briefed regarding the current status of the operations and what available resources and capabilities were at their disposal. The transfer of command may have been better postponed until those informative briefings occurred. Once the FBI had current assessments, a more active crisis management role could have been initiated.

While information was passed back and forth freely at the Strategic Level, it did not always filter down to the tactical level. The identification of the isotope was known at the JOC a long time before some of the field Radiation survey teams knew what they were looking for. In fact, some teams were never told upon termination of the exercise. This would have made a difference in who was used to do the searching, and what equipment was used.

Some operational unit chiefs were allowed access into the JOC. It was noted that the CSD, which is an operational hazardous material support team, was represented in this strategic setting and at times CSD leadership left the JOC to deal with operational issues.

Exercise Finding:

The Unified Command concept is essential in a situation where multiple agencies with different and perhaps overlapping jurisdiction must work together to solve an immediate problem. Traditionally, the Joint Operations Center has been thought to fulfill this role. In this exercise, we note that there are really two separate and distinct functions in need of a Unified Command. These are the ***strategic*** *and the* ***tactical*** *levels of command. The JOC in its traditional form addresses only the* ***strategic*** *level and substantially ignores the* ***tactical****. The observations of this exercise point to the need for a* ***tactical*** *Unified Command at the scent of the action in addition to the strategic Unified Command in the Joint Operations Center. The meaning of the terms "strategic" and "tactical" should be obvious from the evaluator's observations above. The* ***strategic*** *command tends to be concerned with the overall strategy and allocation and coordination of resources. The* ***tactical*** *command is concerned with the detailed response to the incident at the scene of the action. It appeared that some of the Law Enforcement personnel were not familiar with the roles, responsibilities, and resources of state and local responders and visa versa for the emergency management and environmental management personnel. In addition, some operational support elements need to stay with the unified command structure and not in the JOC.*

Depth of Coverage

Back-up capability was not as expected. A few of the agencies had enough personnel that were familiar with the Incident Command System. Additional personnel were needed from a number of local, state, and federal agencies. Many of the state agencies sent their Emergency Preparedness Liaison Officers (EPLOs). Since the State Emergency Operations Center was not fully activated, the EPLOs were able to fill this role. However, had the State EOC been operational, the EPLOs would have been tasked to support state logistical efforts. Even though the state has run eight (8) Nuclear, Biological, and Chemical Weapons of Mass Destruction courses for county and state personnel, many of the state responders who responded, had not attended these courses.

Exercise Finding:

The state needs to identify more individuals that have completed Incident Command/ Unified Command WMD courses and exercise those individuals to support the local authorities.

Site Safety:

PSP were not sure where the inner perimeter was and access to the site by various agencies was at times confusing. During the initial response, a pre entry/safety briefing was not conducted. Although identified, the entry backup team was not fully dressed out when the first entry occurred. Early in the exercise the county hazmat team entered the the building in full Level A personal protection. Team 1 entered the building without

reading the radiation meter. Team 2 realized that Team 1 did not have any meter readings and realized that their survey meter was saturated as soon as they entered the building. Team 2 called Team 1 back to the building entrance. The Incident Commander instructed Team 1 to complete their rescue mission according to their training. This resulted in unnecessary stair climbing in Level A protection. (What was needed was a higher range gamma survey meter.) One PSP criminal investigator gained access, without escort, to the city/county office building and was contaminated. It was observed at this time that the site safety officer was not present. The 3rd MSD team then resurveyed the exterior of the building in Level A protection but this was after the Pennsylvania Department of Environmental Protection's Bureau of Radiation Protection personnel surveyed the same area in street clothes.

Observations on Site Safety included the following:

> Decontamination Operations: Radiation surveys were done on personnel leaving the Hot Zone but some were not monitored leaving the decontamination area. Specifically, county hazardous material personnel did not seem to be checked after removing their suits. It did not appear that decontamination back up teams were designated.
>
> Video Surveillance – Operationally, many of the response teams thought that "Live time feeds" (to JOC/UCS, etc.), could have enabled responders to operate more effectively for four reasons.
>
> 1) Responders could have a "Quick Look" through the use of Robotics that could be used for victim and secondary device search and assessments if robotics with video were used optimally;
> 2) The Incident Safety Officer could monitor the Responder Safety while operating in Level As;
> 3) Videotaped documentation could later be used in the evidence processes;
> 4) Subject expert, whether EOD or radiation, could support the response (backstop) if something could or did go wrong, that individual could respond, if necessary, and know where the dangers or mistake could be averted in the second attempt.

Hazardous material teams did not appear to share resources (decontamination and survey equipment) and look into mobile transportation for equipment and personnel if the scene is as large as it was at this scenario. The sharing of resources was compounded because a clear staging area/manager was never established.

Level A entry teams could not have climbed and fit through roof hatches. SOPs for response to such situations should address the need to conduct Level A work on rooftops and the use of aerial trucks, ladders, hydraulic platforms, etc. More generally, the responding organizations should have a better understanding of Level A operations (removing patients and hauling equipment can be difficult).

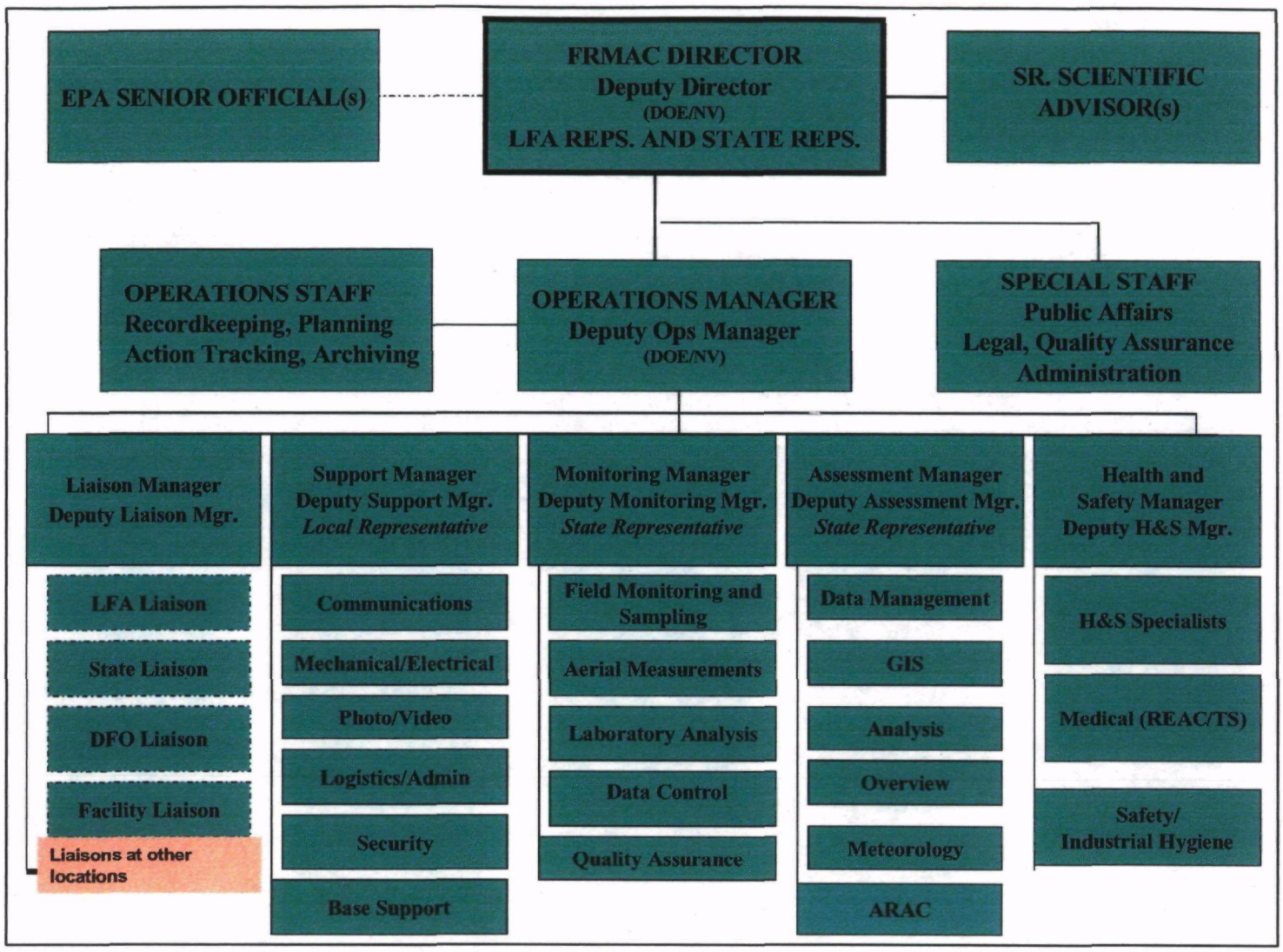
Exercise Finding:

Overall this points to a total lack of unified approach to site safety. It is not a "fault" on the part of any individual participant or participating agency, since each was operating under their own established procedures. The problem is that there is no procedure to bring these procedures together. There are no established procedures to deal with unified interagency control over site safety, but this should be one of the functions of a unified command structure. If a site safety officer is needed in such a situation, one of the EPA OSCs volunteered that this could be an EPA role. We recommend that the interagency plans at all levels be revised to include inclusion of a unified approach to site safety within the Unified Command structure at the tactical level.

Survey Techniques:

Not every response organization used same radiological units of measure (R, mR, etc.). CSD element instrumentation should be capable of providing data in English and Standard International units. The DOE vehicle mounted radiation detectors failed to locate the radioactive source in the "bomb lab" even though the AMS helicopter detected it. This suggested some attention needed to be paid to the capabilities and deployment of the system, particularly to training. The system had detected the source but did not alarm. Operators were waiting for an alarm and were not looking at the display, which did show the presence of the source. It should be noted that CSD, PADEP, EPA, DOE teams all identified the radioisotopes at various points in time. Additionally, initial entry teams should consider biologic indicators.

More interfaces between the local and state resources needed to occur. In the FRMAC organization chart (Figure 3) there is a place for this coordination to occur but many did not know that the Unified Command Structure had moved adjacent to the FRMAC on Day 2. Both the FBI and DOE believed that the "Unified Command" functions were covered in the Joint Operations Center. There were actually two operational sites and a number of individual team surveys that were being coordinated, although rather loosely. This points back to a need for a more focused approach, by the local/state Unified Command structure located next to, in the same building, as the FRMAC.



Federal Radiological Monitoring and Assessment Center (Figure 3)

The Federal Radiological Monitoring and Assessment Center (FRMAC) failed to initiate the first briefing until it was prompted by a state official that was *observing* the exercise. The unified command staff, which was present and consisted of local and state response agencies, were not periodically briefed by DOE staff within the FRMAC.

Traffic Control Points/Access Control Points

PSP command and supervisory personnel quickly established perimeter security and traffic control around the incident personnel. RAP's initial entrance to the incident command post was blocked but after displaying the recently designed RAP badge, was allowed access. External and Internal Security was lacking at most operations.

Communication:

There appeared to be no effective communications plan. The lack of effective communications up and down the lines of authority is one of the most important elements of the command structure. Throughout the incident, personal questioning indicated that subordinate response elements below the strategic level were, for the most part, unaware of the incident status, the overall incident action plan, their role in it, or anything beyond specific task assignments. This can have serious consequences for incident stability and safety, i.e. law enforcement officers operating without protection in what hazardous material/ radiological response forces had determined to be 'hot zones'. I questioned several different responders at different times as to who was in charge and where the command post was, and got as many as three different answers at the same point in time. It should be noted that later in the incident, the Incident Commander recognized this need, and repeatedly urged those agency representatives at the JOC to share information with their respective operational elements, but this did not seem to occur in any planned systematic fashion. Example: PSP lacked the technical assessment personnel's input while setting up the perimeter. PSP communication, when allowed, between the JOC, UCP, and field forces were adequate. PSP was hampered by not having enough phone lines in the JOC and this communication shortfall led to the overuse of cellular telephones.

When the incident transferred to the Ft. Indiantown Gap facility, information exchange was good for critical decisions, but the lack of proper Incident Command establishment and transfer caused some problems. As the day went on the people needing it received most of the pertinent information, but there was a definite lack of knowledge among most responders concerning whom or what the status of command was. As can be expected and certainly did occur, separate command posts or commanders appeared. Dedicated persons overcame this in many instances because of some excellent work. These people put aside their differences or attitudes and worked to resolve the problem pertaining to the incident. Most of the information got to where it had to be on Day 1 by one means or another.

As the second day started the information for some agencies, players, evaluators and controllers was confusing but again was eventually received. Information between agencies and locations seemed to flow rather well and most players knew what was going on most of the time. Again the lack of information for the incident evaluators and controllers caused some problems that could have been resolved with "injects" at specific times or lacking certain predetermined results. The establishment of the "Joint Operations Center" on day 2 helped a great deal with the flow of information. This occurred on day1 in a much less organized and attended fashion which then led to the failure of some information being obtained by certain agencies in a timely fashion.

Decisions were made without thorough coordination (told others they were to do something but did not provide adequate explanation and consultations on what impacts it might have on others.

<u>Communication Technical Support</u> (Exercise & "Real World" Response Issues)

The USAF-Hammer Ace and the Pennsylvania Task Force 1, Urban Search & Rescue communications components, provided much of the exercise radio communications to the exercise controllers and evaluators. Due to the large number of participants and exercise staff, it was necessary to establish robust radio communications capabilities. These communications services could not be provided using telephone circuits because many of the persons who had a need to communicate were at remote locations. In a real event, there would be a similar need for radio communications capabilities, but in a real event it would be far more important to use secure radios to prevent unauthorized persons from eavesdropping on critical messages. USAF-Hammer Ace was able to provide the needed communications capabilities. This is an important aspect in the preplanning for a real event.

The following evaluation is based on observations provided by TSG Tom Kinney of Scott AFB, IL

Although there were some initial glitches with communication support, the communication infrastructure was able to support the exercise and all of the objectives. However, we have the following observations and recommendations for improvements.

1) All communication was clear (not secure), and as such subject to outside monitoring or eavesdropping. This communication insecurity may have adverse ramifications. The press may have access to information that does not need to be released. Also the hostile faction may well be able to gather information and this too may have adverse consequences.

2) Health of communications network was not actively monitored. Up channel reporting of information was not always timely or discriminated.

3) Roles of communication support teams and capabilities of communications assets they deployed were not clear.

Exercise Finding:

A method needs to be identified to provide secure communications for response personnel. The press may have access to information that does not need to be released. Also the hostile faction may well be able to gather information and this too may have adverse consequences. If the DOD system is too restrictive with its authorized user constraints – then another system needs to be developed for use in the event of a situation as envisioned in this scenario.

In an ideal situation, a control cell needs to be established and good wire diagrams for agency/cell interaction need to be developed. It is also at this point the communications working group can be established to assess each cell's requirements and develop a scheme and obtain necessary equipment or frequencies for the command and reporting information flow. Simply stated, this means being able to identify the requirements of others. The

working groups established for other cells will have functional area experts, but their expertise is in their functional area not communications. Communications needs to be a central part of planning for response as well as in the execution of a response, either real or in an exercise.

During operations, functional experts must take an active role in ensuring their systems are healthy and satisfying user requirements. This includes user education in advance of an event and active intervention when communications problems are identified during an event. It may not be possible to pre-arrange all the details in advance, but there is a definite need to pre-plan communications needs of a generic event and how they might be met. There is a need for a communications planning conference for counter-terrorism events.

Terminology:

Terminology was a problem from the beginning and throughout the incident. It is obvious that all agencies need to attend Incident Command training of some kind (the N.F.A. Incident Command System recommended). If pre-incident questioning reveals that this has not occurred, a mini session prior to the drill, or a set of terms could possibly be provided.

Criminal Investigation:

PSP had a criminal investigation team on-site that were available to interview victims, witnesses, and first responders and had the resources to canvas the neighborhood for witnesses, videotape, and photograph the crime scene and to conduct other investigative operations while the evidence was fresh and leads could easily be pursued. FBI, however, did not request any immediate investigative operations.

Continuity of Municipal Operations:

An issue that was not addressed was a plan to maintain a continuity of operations in "Fig City" while this incident was being addressed. In an incident of this type, fires will continue to occur, citizens will continue to become ill for reasons unrelated to the incident, police complaints will continue to come in, public works related emergencies (i.e. water line breaks, etc) may take place. Therefore, plans to cope with this type of incident must include provisions to deal with these matters.

The PSP criminal investigative team was a valuable resource severely underutilized during day one, presumably a time when evidence is fresh and leads could be most effectively utilized.

3rd CSD WMD needs to further their efforts in synchronizing training objectives to enable them to forecast and use their resources effectively to support local responders. They would also like to obtain more exercise controller training to help them evaluate their internal exercises.

Scene Safety During Exercise Play:

The scene remained safe with no actual injuries or vehicle accidents reported. Dosimetry could've been monitored on a scheduled, more frequent basis. All managers and response personnel did a great job looking after their personnel so that heat stress issues did not occur.

Evidence Collection/Planning:

FBI coordination with evidence collection resources, to include chain of custody, filming/document, did occur. 3rd CSD was tasked for an assessment but not collection. There was a miscommunication on the JOCs tasking regarding this mission. By tasking the 3rd CSD to do this, the JOC removed a valuable state asset from the local and states resource survey capabilities manpower pool. The county and state would've have used the team to support ongoing residence survey taskings that were already underway in Day 2. The FBI's Philadelphia Hazardous Materials Response team was available to meet the FBI's evidence collection needs.

Press:

In the Vigilant Lion Exercise there was significant interaction with the news media. This was intended to allow the news media to provide coverage of the exercise itself and to allow them to see how an actual incident would be handled. We placed the simulated media interactions late in the exercise after a Joint Information Center had been established. However we realized that much of the media coverage would occur during the initial response, and we did not simulate this press coverage. Instead, reporters covering the exercise were allowed access to first response personnel.

The press had accessibility to the whole exercise and it was a good training tool, but on the other, it hampered the first responder's ability to function in a media free environment. The state police were very lenient, as previously agreed upon, to allow the press the necessary access; access, which would not have been granted, had this been a real world incident. The internal and external press coverage for the exercise was excellent. It must be noted that had this been a real event, not enough state or county Public Information Officers were available early on in the exercise, however, on the second day, the "mock" press briefings went off without a hitch. More injects could have been forwarded on to the "mock press" into the JIC to really task the Center but all press objectives were met anyway. Most press "players" agreed that it would be helpful to have more than one press person from each agency to help with the media coverage. In reality, there probably would be more activity in the JIC than the JOC. Another item that was tough for the media group was the validation of information released. The recording of releases and information release is essential so that the media covering the event does not cause any liability issues later in the incident by drawing out/confirming information that was not previously authorized for release.

The FBI representative from the Philadelphia Office coordinated the Joint Information Center media activities. The FBI representative facilitated all "mock" press briefings and ensured that subject matter agency experts were available for media questions. Most of the media "players" arrived with the necessary equipment to generate needed press releases and to capture both releasable and non-releasable information. The center simulated that the PEMA satellite truck was available to address public issues and safety concerns. The JIC scheduled a number of press briefings and conducted "mock" interviews. The center also initiated staffing assignment and designated safe media areas to cover various aspects of the response/crime scene coverage in the event that there would be multiple incident scenes.

Exercise Finding:

Based on the outcome of this interaction, participants believe that a trained cadre of Public Information Officers, to include the county PIOs, should arrive early at the scene. This cadre should be trained on whom to go to as to safely obtain the needed information quickly without jeopardizing the operation. A flexible, but secure, uniformed badge system should be developed for the Public Information Officers and their staff. All of this should be developed into a state Public Information Officer plan, quickly. The designated press corps needs immediate and efficient media resources in order to provide critical information to the reporters who will converge on the scene. The only way to effectively meet this mission tasking is to have a well thought out and exercised plan. In particular, the electronic media can be an important tool to allow protective actions to be conveyed to the public. If this is not done, local responders, who are already highly stressed, will be distracted from other important duties and important public safety information may not be adequately communicated to the responders and the general public.

Bomb Squad/Explosive Ordnance Disposal Teams:

On the first day of the exercise, it was planned that the bomb squad be assembled, which consisted of bomb technicians from both civilian and military units, would reconnoiter the FIG City/County Office building, inside and out, in coordination with the local, state, and federal response agencies. Unfortunately, due to exercise timeline constraints, exercise controllers had to condense or delete some of those activities.

On the second day, the house with the second device was identified. The FBI, as the lead federal agency, responded with the "local" bomb squad. The bomb technicians made the necessary entry (caused by the scenario and monitored by controllers). Once inside, the bomb technicians also discovered that the house was booby-trapped. The FBI agent directing personnel outside informed the DOE representative a path had been cleared to the discovered radiological source and that the DOE RAP personnel now on-scene needed to retrieve the source material. This caused the exercise "anticipated" timeline to run a little longer than planned but a much needed discussion on roles and responsibilities in this area ensued. The RAP team leader informed the FBI agent-in-

charge that RAP personnel could not enter the building, even if a path had been cleared, and if a suspected Radiological Dispersion Device (RDD) was identified. Eventually, the DOE did take possession of the RDD after the RAP Team Leaders concern regarding adequate room for RAP maneuvering was satisfied. The DOE RAP Team Leaders entered the room with the FBI Bomb Tech to demonstrate what would be required to remove the source had this been a real event .

Exercise Finding: This operational activity needs to be reviewed and clearly understood by all parties concerned.

Corrective action: *FBI and DOE have already identified their roles and responsibilities under the DEST Guidelines, CT-JTF, and CJCS Conplan. Further training in this area is already taking place at Hazardous Devices School, Redstone Arsenal, Alabama.*

Near the conclusion of the exercise, and when the "Bomb Squads" were still operating, there wasn't any Fire Service or Hazardous Material Team representation. Law Enforcement, Radiation Protection, and Environmental Protection personnel were on-scene. There was a lengthy delay in getting the radiological material recovery phase moving. The command element for this portion of the exercise was difficult to find and identify. The "Bomb Squads" however, did get to operate. One exercise evaluator was unsure what happened here, perhaps there was a reluctance to commit additional resources that late in the scenario, or perhaps there was at this point the feeling that the exercise was already over.

Exercise Finding:

Exercise Controllers need to monitor timelines more closely. Prompts need to be made "by the clock" as to rectify stalls. It was evident that exercise play stalls/stoppages affected additional play by 1) bomb technicians and the DOE RAP teams on Day One and 2) the bomb technicians exercise time needs for diagnostics on the second day.

Exercise Finding:

A terrorist incident is likely to involve a large number of people from many disciplines with greatly varying areas of expertise. It is unreasonable to expect any responder to be highly competent in every field. This is especially true if the threat is chemical, radiological, or biological instead or in some combination with conventional explosives. The first responders may be required to address a terrorist incident with only minimal technical training in chemical, biological or radiological hazards as they relate to a terrorist act. Complicating the situation more, first responders may not be able to identify the full scope of the problem, for example a mixed threat. A similar problem can occur in later phases of the response. For example, if the first responders are faced with an explosive device and are not aware of a radiological threat, then only a bomb squad would be mobilized and radiological expertise may never be called in. Since a bomb squad cannot be expected to have chemical, biological or radiological expertise, there is ample room for problems to develop.

There is a need for a rapid assistance mechanism to assist the first responders in assessing the situation, and a rapid assistance mechanism to get technical help to the scene very quickly after a threat is identified. This is as much to protect the health of the responders as it is to address the threat. The newly commissioned RAID teams can supply much of this needed mechanism. In addition, there is a need for a rapidly available expert consultation service. A good model for this service would be the DOE funded REAC/TS function at Oak Ridge, TN. This service is geared to provide immediate medical consultation in the event of a nuclear accident. Similar capabilities for chemical and biological threats would be quite valuable, and such an assistance service should not be restricted to medical aspects of the problem. Responders need a place to call for immediate advice.

Exercise Preparation:

More information packets needed to be sent to the necessary agencies, players, evaluators, controllers, and media prior to the exercise. Additional radios or scanners should have been provided to the evaluators and controllers to monitor radio traffic pertaining to the exercise play. Some evaluators could then monitor incident information between players while the other evaluators could monitor traffic among controllers and organizers. Although an assignment board was completed prior to each day's activities for the exercise evaluation and controller members, it was under utilized for evaluation and controller taskings. Some members of the evaluation team could have been assigned to evaluate other portions of the exercise instead of waiting for their next scheduled assignment, meanwhile, other exercise evaluators had more than they could handle due to the fast-paced flow of the exercise in certain areas.

Conclusions:

We have the capability to handle a Weapons of Mass Destruction incident. This first time attempt of a radiological exercise of its type and magnitude had every reason to fail; but it didn't. It went off better than the exercise team members had imagined. There are, however, many issues that need to be resolved quickly so that loss of life and property of the general public and responders can be greatly diminished.

On broad overview, the exercise showed that the various local, county, state and federal agencies have the ability to deal with the terrorist incident that was simulated. Each agency came to the exercise with capable and dedicated people who knew their jobs and did them well. The exercise revealed a number of important "lessons learned" which should lead to a significantly strengthened ability to respond to a terrorist incident if the appropriate corrective measures are implemented. This after-action report and its attached annexes can serve as a template for any agency, which wants to attempt an exercise of its kind. From the beginning of the exercise the group wanted to ensure that as much data was captured as possible, and this compilation of information has been provided within the report and will be shared with authorized response agencies that request this report. Another benefit identified was that Pennsylvania now has a large number of trained cadre of evaluators and controllers for state and regional sponsored exercises. This cadre, as well as the exercise participants has a great understanding on what resources and personnel are available should an incident like this occur here in the Commonwealth.

The benefit of the personal contacts from the planning process of the exercise didn't fully appear in the exercise itself because the players had never interacted before. The exercise design team members were occupied during the exercise with duties related to control and evaluation of the exercise, and so were not available as responders. These were the people who were most familiar with the various response agencies. However if a real world incident had occurred, the exercise design team members would have been the players and the face-to-face planning would have had strong positive impact.

This was observed in the Lost Source Exercise of 1997 held in Coatesville, Chester County, which was co-sponsored by the Nuclear Regulatory Commission-Region 1, and the Environmental Protection Agency, Region 3 offices. Three weeks prior to the exercise, a real incident occurred which involved the same individuals who had planned the exercise. As a result of the strong personal bonds that had developed and the intimate familiarity of each person with the other's responsibilities and capabilities, the response went exceptionally smoothly. The **planning** of the exercise had a benefit because it forced the various participants to work together as a team. This is a graphic demonstration of a secondary value of exercises. It could be expected to result form the Vigilant Lion Exercise, too.

The participating agencies need to train more people in response support activities. It was apparent that the number of people who are trained in response is

sufficient in the short term and agencies would have difficulty in responding on a 24-hour, seven days a week basis for a protracted period.

PEMA should continue to develop the role of state agency NBC Officers and provide higher levels of training. Additional terrorism exercises should be planned for other areas of the state as well as across the country. The personal benefit of this exercise will be mainly to the participants. The lessons learned should help in developing a counter-terrorism infrastructure, but ideally all responders should participate in at least one exercise. Unfortunately, exercises of this scope are unlikely to occur on a regular basis.

There is a need for development of a pocket Field Operations Guide (such as the US&R Program) would ensure that ICS/UCS is implemented in a multi-agency response.

Pre-identification of response personnel is important. Each response agency should have the ability to request assistance quickly through well-established channels. Responders from various agencies need to be pre-credentialed. People who need to be on the scene must have access immediately and other agencies must know who and what agencies they represent. This would help the security operations immensely.

The CSD is a new, important and valuable resource for the State and Local responders. The CSD thought that this was an excellent opportunity for the 3rd CSD to interface with local, state, and federal agencies and afforded them an opportunity to improve their Standard Operating Procedures. This exercise and the subsequent changes that will be made in their present checklists and plans will make it easier when interfacing with other local and state responders in FEMA Region III.

The exercise team listed below hopes that whomever reviews this information would benefit from this and would attempt to formulate and execute this type of exercise. The citizens and elected/appointed officials of your jurisdictions are looking to you for a quick, concise response. Planning on paper doesn't mean anything unless you can really make it happen in the field and under the most adverse of condition.

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EXERCISE PURPOSE & SCOPE

Exercise Purpose: ***This exercise is designed to test the concepts and procedures required for local, state, and federal government agencies to respond to a weapon of mass destruction event in the Commonwealth of Pennsylvania. The exercise will concentrate on local response, notifications, crisis management, consequence management, criminal (terrorist) investigations, and interagency coordination and communication.***

EXERCISE SCOPE MATRIX

ORGANIZATION	LEVEL OF PLAY; DAY 1	LEVEL OF PLAY; DAY 2
FEDERAL AGENCIES		
FBI		
< Headquarters < Credibility Assess < DEST	Full	DEST Simulated otherwise full
< Quantico (HMRU)		Full
< Pennsylvania	Full	Full
< Hostage Rescue Team	Simulated-Notification only	Simulated-Notification only
<		
DOE –*Need to Verify this		
< ***Headquarters*** ***NN-60*** ***NN-62*** ***Office of Science*** ***Defense Programs*** ***LLNL Threat Assess***	 ***Part or simcell*** ***Part or simcell*** ***Part or simcell*** ***Part or simcell*** ***simulated***	 ***Part or simcell*** ***Part or simcell*** **Part or simcell** ***Part or simcell***
< Chicago Ops Office	Simcell	Simcell
< Brookhaven	Notification point only	Simcell
< RAP Region 1	6 hours actual - Pre-staged	Full

ORGANIZATION	LEVEL OF PLAY; DAY 1	LEVEL OF PLAY; DAY 2
< NEST	Participates in Sim DEST	Full
< AMS	simulated	simulated
ARAC	Notification only	Simulated or pre-stated
< FRMAC	Phase I	Phase I
< REAC/TS	Partial	Partial
EPA		
< Headquarters	Notified - rest simulated DEST	Simcell
< Region III	EOC Part	Part
< Onscene Coordinator	Full	full
Laboratories (Mobile AL and LV	Simulated	simulated
< Technical Assist Contracting Team	part	part
Department of Treasury	TBD	TBD
< ATF	N/A Supplied Evaluator	N/A Supplied Evaluator
<		
DOD		
< 756 EOD	Unknown, Deployed	Unknown, Deployed
< Tech Escort	Simulated - Notification only	Simulated
< HAMMER ACE	Comm Support	Comm Support
< Indianhead	EOD Controller/Evaluator	EOD Controller/Evaluator
FEMA		
< Headquarters	Simulated	Simcell
< FEMA Region III Liaison and ERT	Partial	Partial
< Regional Operations Center (ROC)	Simulated Possible part activation	Part

ORGANIZATION	LEVEL OF PLAY; DAY 1	LEVEL OF PLAY; DAY 2
US Veterans Affairs	Part	Part
Department of Agriculture	TBD	TBD
HHS	TBD	TBD
STATE OF PA AGENCIES		
Govenor's Office	TBD	TBD
< Lt. Governor	Possible	part
<		
PA Bureau of Investigation		
< State Police	Intell - Simulated	simcell
< Bureau Special Operations	Full	full
<		
PA National Guard/DMVA		
< RAID	Full	Full
< Military Support	Full	Full
< Civil Air Patrol	Full	Full
< 128th Chemical Company	N/A No Mandays	N/A
PEMA		
< RIM&C	Full	Full
< CENIC (Public Affairs)	Full	Full
Satellite Vehicle (Communications Vehcile)	Full	Full
< SEOC	Full	Full
PA DEP		
Bureau of Rad Protection	Full	Full

ORGANIZATION	LEVEL OF PLAY; DAY 1	LEVEL OF PLAY; DAY 2
ERT	FULL	Full
PA Health Department	Partial	Partial
PIO	Full	Full
LeHigh County EMA	Limited	Limited
< Allentown Bomb Squad	Full	Full
< Reading Bomb Squad	Full	Full
<		
Lebanon County EMA	Full	Full
< HAZMAT	Full	Full
< EOC/Comm Center	Part	Part
< Ft Indian Gap FD	Full	Part
< Ft. Indian Gap PD	Full	Full
EMS	Full	Part
Basic Life Support/Advance Life Support	Full	Part
HAZMAT Mutual Aid	Simulated	Schuylkill County Assistance During Interviews/Surveys
Good Samaritan Hospital	Full	Full
< County Cornor	Full	part
< Funeral Director	Full	part
East Hanover EMA	Full	TBD
East Hanover Governing Official	Full	TBD

Exercise Objectives

Local Organizations:

A. Lebanon County EMA

Objective #A.1	Given notification of a large number of patients arriving at Good Samaritan Hospital, Activate the HAZMAT team in accordance with Lebanon County Emergency Operations Plan, Lebanon County PA Act 78 (911) Plan, Lebanon VA Hospital/Good Samaritan Hospital *Mutual Aid Agreement* and Lebanon County HAZMAT Dispatch SOP.
Objective #A.2	Given the notification from Good Samaritan Hospital and activation of the HAZMAT Team, make notifications to PEMA in accordance with the Lebanon County EMA Notification SOP and Pennsylvania Emergency Information Reporting System.
Objective #A.3	Given information from the HAZMAT Team, Activate the Lebanon County EOC in accordance with Lebanon County HAZMAT Dispatch SOP and Lebanon County Emergency Operations Plan.
Objective #A.4	Given an operational EOC, support response assets with communications and logistical support in accordance with Lebanon County EOC SOP and Lebanon County Emergency Operations Plan.
Objective #A.5	Given an expanding event scope, implement mutual aid agreements in accordance with Lebanon County HAZMAT Dispatch SOP and Lebanon County Emergency Operations Plan
Objective #A.6	Given Federalization of the response, coordinate the county response with the Federal on-scene commander in accordance with Lebanon County HAZMAT Dispatch SOP, Unified Command System.
Objective #A.7	Given fatalities, coordinate interment with the county coroner in accordance with Lebanon County EOC SOP and Lebanon County EMA EOP.
Objective #A.8	Given an activated Joint Information Center, provide county PIO support in accordance with the Lebanon County EOC SOP and Lebanon County EMA SOP.

B. Lebanon County HAZMAT

Objective #B.1	Given notification of a large number of patients arriving at Good Samaritan Hospital, Activate the HAZMAT team in accordance with the Lebanon County HAZMAT Dispatch SOP.
Objective #B.2	Given an operational HAZMAT, dispatch the team to Good Samaritan Hospital and establish incident command in accordance with the Lebanon County EMA HAZMAT SOP.
Objective #B.3	Given a suspected HAZMAT event, establish and operate a decontamination unit at the Good Samaritan Hospital in accordance with Lebanon County HAZMAT Dispatch SOP {Reference: OSHA 1910.120}.
Objective #B.4	Given suspected radiological contamination, notify PEMA in accordance with the Pennsylvania Emergency Information Reporting System (PEIRS) and 911 Protocols and Lebanon County EMA SOP.
Objective #B.5	Given the information that all patients worked at the FIG City/County Office Building, dispatch a HAZMAT team to FIG City and survey the building for hazardous materials in accordance with Lebanon County EMA HAZMAT SOP.
Objective #B.6	Upon arrival at FIG City/County Office Building, establish incident command in accordance with Lebanon County EMA HAZMAT SOP.
Objective #B.7	Upon establishment of incident command, conduct an evacuation of the building to include evacuation to a predetermined assembly point where evacuees are controlled in accordance with Lebanon County EMA HAZMAT SOP and Lebanon County EOC SOP.
Objective #B.8	Given identification of the same or similar symptoms of the evacuees, survey evacuees in accordance with the Lebanon County HAZMAT EMA SOP
Objective #B.9	Given contamination of building evacuees, establish and decon evacuees in accordance with Lebanon County EMA HAZMAT SOP {Reference: 1910.120}.
Objective #B.10	Given a possible relocation of Lebanon County residents, activate Critical Incident Stress Management Teams for deployment to shelters in accordance with county plan.

Lancaster County EMA

Objective #C.1	Given a request for assistance, provide HAZMAT mutual aid in accordance with the Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.
Objective #C.2	Given a request for assistance, provide medical mutual aid in accordance with Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.
Objective #C.3	Given a request for assistance, provide radiological monitoring resource mutual aid in accordance with Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.
Objective #C.4	Given an increase of scope of the event in Lebanon County, activate the Lancaster County EOC in accordance with Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.
Objective #C.5	Given a request for assistance, deploy the bomb search dog to Lebanon County in accordance with Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.
Objective #C.6	Given a possible relocation of Lebanon County residents, prepare to activate shelters in accordance with Lancaster County/Lebanon County Mutual Aid Agreement for Emergency Services.

Good Samaritan Hospital

Objective #D.1	Given a large number of patients with same or similar symptoms, activate the Hospital Mass Casualty Plan in accordance with the Good Samaritan Hospital (GSH) Disaster Plan.
Objective #D.2	Given a mass casualty event, request Commonwealth assistance in accordance with the GSH Mass Casualty Plan.
Objective #D.3	Given a mass casualty event, request mutual aid in accordance with the GSH Mass Casualty Plan and transfer Tertiary acute care in accordance with the Hazardous Material Emergency Plan, Appendix K.
Objective #D.4	Given the identification of a radiological event, survey the hospital for contamination in accordance with GSH Disaster Plan, HAZMAT Adden. G.
Objective #D.5	Given contaminated areas in the hospital, decontaminate these areas in accordance with the GSH HAZMAT Plan, Appendix J. (Ref: R/HMETA)

Fort Indian Gap Fire Department

Objective #F.1	Given a suspected HAZMAT event at Good Samaritan Hospital, support the HAZMAT team in accordance with
Objective #F.2	Given a suspected HAZMAT event at building XXX, support the HAZMAT team in accordance with
Objective #F.3	Given Federalization of the event, support the emergency response in accordance with

Fort Indian Gap Police Department

Objective #G.1	Given a suspected HAZMAT event at the FIG City/County Office Building, execute a security cordon around the building in accordance with Ft. Indiantown Gap Police Department's Protocol/Operations Procedure 41.2.
Objective #G.2	Giving an increasing event scope, request mutual aid in accordance with Ft. Indiantown Gap Police Department's Protocol/Operations Procedure 41.2.
Objective #G.3	Given a radiological event, provide road blocks around the affected area in accordance with Ft. Indiantown Gap Police Department's Protocol/Operations Procedure 41.2.
Objective #G.4	Given fatalities, notify next of kin in accordance with Ft. Indiantown Gap Police Department's Protocol/Operations Procedure 41.2.

Lebanon County Coroner

Objective #H.1	Given contaminated fatalities, coordinate the decontamination and temporary storage of the fatalities in accordance with GSH Disaster Plan, Hazmat Addendum.

Explosive Ordnance Disposal/Bomb Squad

Objective #I.1	Given the request for assistance, activate and deploy the bomb squad in accordance with civil bomb squad operation instructors (or 52nd Group Operating Instruction).
Objective #I.2	Upon arrival at the event scene, receive briefing from incident command and security personnel in accordance with past accepted procedures.
Objective #I.3	Upon locating the suspected explosive device, survey the device in accordance with applicable publications.
Objective #I.4	After surveying and analyzing the device, render safe in accordance with applicable publications.

Objective Series J and K reserved for future use

Commonwealth of Pennsylvania Organizations

Department of Environmental Protection (DEP), Emergency Response Program

Objective #L.1: Given notification of an event, notify ERTs within 15 minutes and deploy the emergency response teams to the event scene.

Objective #L.2: Notify DEP State and Regional Directors of the emergency response within 20 minutes.

Objective #L.3: Upon arrival of initial DEP responders, assess the event scene in accordance with the DEP Emergency Response Plan.

Objective #L.4: Upon activation, the DEP ERTs will respond with the capability to conduct assessments, monitoring, mitigation, and communications in accordance with DEP Emergency Response Plan.

Objective #L.5: Based on the results of the assessment, make request additional assets in accordance with DEP Emergency Response Plan.

Objective #L.6Maintain information flow between deployed staff and Headquarters in accordance with DEP Emergency Response Plan.

Objective #L.7Liaison with federal, local, and other commonwealth agencies in accordance with DEP Emergency Response Plan.

Objective #L.8Make preliminary determination of radionuclide(s) in coordination with other agency deployed assets, using field instruments and techniques as recommended by attenuator analysis techniques.

Objective #N.9 Coordinate media inquiries with other agencies in accordance with DEP Emergency Response Plan.

Pennsylvania Emergency Management Agency

Objective #M.1	Given an emergency notification, document event notification information in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.2	Upon notification of an emergency, establish communications with the county EMA office and document event information in accordance with the Commonwealth's *Emergency Operations Plan*
Objective #M.3	Given notification of an emergency via the Pennsylvania Emergency Information Reporting System (PEIRS) criteria, notify off-site personnel and agencies in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.4	Given notification of an emergency, activate and staff the State Emergency Operations Center (SEOC) in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.5	Given the activation of the SEOC to level III, declare the SEOC operational when key staff members are present and briefed in accordance with the Commonwealth's *Emergency Operations Plan*, the *PEMA Administrative SOP*, and *Terrorism Checklist.*
Objective #M.6	Given verification of public warning siren activation, initiate the activation of the Emergency Alerting System (EAS) message in accordance with the *Commonwealth of Pennsylvania's EAS Operational Plan.*

Objective #M.7	Given an operational RAP Mobile Laboratory communications links, request information and event updates via the satellite up-link vehicle and National Communication System Shared Resources System in accordance with accepted communication protocols.
Objective #M.8	Given receipt of event information from the scene, develop situation reports based on chronological information in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.9	Given an operational SEOC, review and evaluate the protective action recommendations (PARs) with the Pennsylvania Department of Environmental Protection (PA DEP) and PA Health for impacted jurisdictions in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.10	Given information from PA DEP and Bureau of Radiation Protection (BRP), develop an assessment of the impacts of the event in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.11	Given an operational emergency, provide emergency instruction to the public via the Emergency Information Officer in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.12	Given an operational emergency, maintain event information in EIS/GEMS in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.13	Given an operational emergency, and in coordination with the affected site, develop long-range strategies for recovery operations in accordance with the Commonwealth's *Emergency Operations Plan.*
Objective #M.14	Given an operational emergency involving sensitive information, receive and process classified information in accordance with the Commonwealth's *Emergency Operations Plan*
Objective #M.15	Given an operational emergency, use mast-cam to observe team movements in the event scene hot or warm zones in accordance with

Department of Environmental Protection (DEP), Bureau of Radiation Protection

Objective #N.1:	Given notification of an event, notify BRP personnel within 15 minutes and deploy appropriate personnel to the event scene.
Objective #N.2:	Notify DEP BRP decision-makers of the emergency response within 20 minutes.
Objective #N.3:	Upon arrival of initial DEP responders, assess the event scene in accordance with the DEP Emergency Response Plan.
Objective #N.4	Upon arrival, liaison with the DEP ERT on-scene to conduct assessments, monitoring, mitigation, and communications in accordance with DEP Emergency Response Plan.
Objective #N.5:	Based on the results of the assessment, make request additional assets in accordance with DEP Emergency Response Plan.
Objective #N.6	Given deployed response teams, maintain information flow between deployed staff and the DEP/BRP Headquarters in accordance with DEP Emergency Response Plan.
Objective #N.7	Given an initial assessment, formulate and communicate protective action recommendations for public health and safety in accordance with DEP Emergency Response Plan.
Objective #N.8	Given an operational ERT on scene, formulate and communicate a preliminary dose assessment using RASCAL Dose Projection software and/or by computing calculations manually.
Objective #N.9	Given deployed ERTs, liaison with federal, local, and other commonwealth agencies in accordance with DEP Emergency Response Plan.
Objective #N.10	Given deployed ERTs, make preliminary determination of radionuclide(s) in coordination with other agency deployed assets, using field instruments and techniques as recommended by attenuator analysis techniques.
Objective #N.11	Given deployed assets, coordinate media inquiries with other agencies in accordance with DEP Emergency Response Plan.

Civil Air Patrol

Objective #O.1	Given notification from DMVA/PAWG of a possible mass casualty event, identify and activate assets through the PAWG (Pennsylvania Wing) call out procedures.
Objective #O.2	Given notification from DMVA/PAWG of a possible mass casualty event, activate the PAWG HQ EOC in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.3	Given the identification of assets, report opening strength to the PAWG EOC in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.4	Given the request from the SEOC, provide airborne slow-scan for site recon in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.5	Given the request from the SEOC, provide air-rad monitoring in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.6	Given the request from the SEOC, provide logistical/communications support through transport and High-bird flights in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.7	Given the request from the SEOC, provide ground teams for radiological monitoring in accordance with CAPR 50-15, 55-1, and 60-1.
Objective #O.8	Given the request from the SEOC, provide communications support through the CAP frequencies and radio equipment in accordance with CAPR 50-15, 55-1, and 60-1.

3rd CSD WMD (formally Rapid Assessment Initial Detection Element)

Objective #P.1:	Given the request for 3rd MSD RAID assets from the Governor's office, activate the 3rd MSD RAID team in accordance with 3rd MSD Alert Roster.
Objective #P.2:	Given an activated 3rd MSD RAID Team, pre-operations check all equipment and vehicles in accordance with 3rd MSD Pre-Operations Checklist.
Objective #P.3:	Upon deployment, report to the Incident Commander for situation briefings and mission assignments in accordance with 3rd MSD Arrival Standard Operations Guide (SOG) and Checklists.
Objective #P.4:	In coordination with the Incident Command, conduct Assessment by monitoring and sampling in the HAZMAT area in accordance with 3rd MSD Standard Operations Guide.
Objective #P.5:	Upon receipt of training by the DOE NEST team, conduct initial searches for radiological devices in accordance with 3rd MSD Survey SOG.
Objective #P.6:	Upon arrival of RAID, decontaminate RAID members in accordance with 3rd MSD SOG and Decontamination Checklist.

Pennsylvania State Police

Objective #Q.1	Demonstrate the ability to mobilize Department resources to request for assistance from FIG PD in accordance with Field Regulation 2-1, Section 1.03 C.
Objective #Q.2	Demonstrate the ability to participate in a unified command structure at the scene of a suspected hazardous materials incident. Assist in the development of an Incident Action Plan. Reference: Operations Manual 7-1, Emergencies and Unusual Occurrences, Chapter 4.
Objective#Q.3	Establish traffic control and perimeter security appropriate to the incident in accordance with Field Regulation 6-13, Direction and Control of Traffic.
Objective #Q.4	Assist the Federal Bureau of Investigation (FBI) in crisis management activities, as requested, and within Department capabilities: Reference: Field Regulation 1-2.14.
Objective #Q.5	Demonstrate the ability to integrate Department supervisors/ commanders into the FBI's Joint Operations Center (JOC) in accordance with Field Regulation 1-2.14.
Objective #Q.6	Demonstrate the ability to participate in a Joint Information Center (JIC) in accordance with Administrative Regulation 6-1.
Objective #Q.7	Participate in Exercise Debriefing and After-Action Critiques.

Objective Series Q and R reserved for future use

Federal Agencies

Federal Bureau of Investigation (FBI)

Harrisburg RA:

Objective #S.1	Given notification of a possible WMD/terrorist event from a county EMA, notify the Philadelphia Division FBI Office in accordance with FBI Philadelphia Division, Weapons of Mass Destruction Plan.
Objective #S.2	Given notification of a possible WMD/terrorist event from a county EMA, conduct a logical investigation to assist in the credibility assessment in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.3	Given the Harrisburg RA's arrival at the scene, interview patients to identify the source in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.4	Demonstrate the ability to integrate with the Incident Command System/ Unified Command System on-scene in accordance with Federal Bureau of Investigation Weapons of Mass Destruction Incident Contingency Plan.
Objective #S.5	Demonstrate the ability to provide an incident briefing to the Senior Agent In-Charge/Assistant Agent in Charge upon his or her arrival in accordance with Federal Bureau of Investigation Weapons of Mass Destruction Incident Contingency Plan

FBI Philadelphia Office:

Objective #S.6	Given notification of a possible WMD/terrorist event and initial credibility assessment from the RA, complete the credibility assessment and provide the information to the FBI HQ in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.7	Given notification of a possible WMD/terrorist event, deploy bomb technicians, HM Tech resources, and ERT in accordance with the *Crisis Management Plan.*

Objective #S.8	Given regional deployed assets, establish the JOC in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.9	Given a JOC, the SAC establishes unified command in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.

Objectives #S.10 and S.11 reserved for future use

FBI Headquarters:

Objective #S.12	Given notification of a possible WMD/terrorist event from the Philadelphia Regional Office, confirm credibility assessment in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.13	Given a credible assessment, activate and deploy the DEST in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.14	Given a credible assessment, make notifications to other federal agencies and assets in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.15	Given a credible assessment, the bomb tech makes notifications of military and local bomb squad assets in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.

On scene Actions:

Objective #S.16	Given credible intelligence, conduct search for a secondary device in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.17	Given deployed ERT and HM Teams, collect evidence on scene in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.18	Given credible intelligence, notify DOE of the search environment and request deployment of NEST for covert operations in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.
Objective #S.19	Given an identified second device, make safe in accordance with Federal Bureau of Investigation, Manual of Investigations and Operations Guide.

U. S. Department of Energy (DOE)

RAP Region 1:

Objective #T.1	Given a request for radiological assistance from the Pennsylvania Emergency Management Agency, notify DOE HQ within 15 minutes in accordance with DOE 5000.3A *Occurrence Reporting and Processing of Operations Information and* DOE 5530.3, *Radiological Assistance Program (RAP)*.
Objective #T.2	Given a request for RAP assistance, deploy the RAP Team to the event scene in accordance with DOE 5530.3, *Radiological Assistance Program (RAP)* and DOE RAP *Field Operations Guide (FOG)*.
Objective #T.3	Given a deployed, on scene RAP Team, review the analytical and diagnostic information provided by on scene state and local assets in accordance with local and state response procedures as agreed upon in the DOE RAP Region 1 and Commonwealth of Pennsylvania Memorandum of Understanding.
Objective #T.4	Given a deployed, on scene RAP Team, establish and maintain communications with DOE-HQ in accordance with DOE 5530.3, *Radiological Assistance Program (RAP)* and DOE RAP *Field Operations Guide (FOG)*.
Objective #T.5	Given a deployed on scene RAP Team, maintain and process event information in accordance with local and state response procedures as agreed upon in the DOE RAP Region 1 and Commonwealth of Pennsylvania Memorandum of Understanding.
Objective #T.6	Given a deployed on scene RAP Team, develop and provide protective action recommendations in accordance with local and state response procedures as agreed upon in the DOE RAP Region 1 and Commonwealth of Pennsylvania Memorandum of Understanding.

Objective #T.7	Given a deployed on scene RAP Team, receive, formulate, coordinate, and distribute public information via the JIC in accordance with local and state response procedures as agreed upon in the DOE RAP Region 1 and Commonwealth of Pennsylvania Memorandum of Understanding.
Objective #T.8	Given a deployed on scene RAP Team and events involving security issues, disseminate classified information in accordance with DOE 5650.2B, *Identification of Classified Information* and DOE 5635.4, *Protection of Unclassified Controlled Nuclear Information.*
Objective #T.9	Given a deployed on scene RAP Team and events involving security issues, coordinate security with the FBI and local law enforcement agencies in accordance with Weapons of Mass Destruction Incident Contingency Plan.
Objective #T.10	Given a deployed on scene RAP Team, coordinate assessment and monitoring with other federal, state and local assets in accordance with local and state response procedures as agreed upon in the DOE RAP Region 1 and Commonwealth of Pennsylvania Memorandum of Understanding.
Objective #T.11	Given the arrival of the Nuclear/Radiological Advisory Team (NRAT) leader, turnover responsibility in accordance with DOE 5530.3, *Radiological Assistance Program (RAP).*

DOE Headquarters:

Objective #T.12	Given notification of the activation of the Region I RAP, convene a monitoring team in the HQ EOC in accordance with DOE Headquarters EMT procedures.
Objective #T.13	Given notification of the activation of the Region I RAP, brief DOE senior official of the event in accordance with DOE Headquarters notification procedures in accordance with HQ Emergency Management Team (EMT) procedures.
Objective #T.14	Given notification of a potential terrorist WMD, conduct and coordinate with the FBI a threat assessment in accordance with DOE NN-64 threat assessment procedures.

Federal Emergency Management Agency (FEMA)

Objective #U.1	Given verified notification of a possible WMD event, establish a state liaison/ERT-A at the regional operations center in accordance with the FEMA Regional Response Plan.
Objective #U.2	Given verified response notification of a possible WMD event, make notifications in accordance with the FEMA Regional Response Plan and the Federal Response Plan.
Objective #U.3	Given the probability of a terrorism incident and probable Presidential Declaration, deploy the ERT to the state operating locations and liaison with FBI Field Operating locations in accordance with the Federal Response Plan and Regional Response Plan.
Objective #U.4	Given the probability of a Presidential Declaration, conduct planning for the activation and deployment of the ERT-A and the establishment of a Disaster Field Office in accordance with the FEMA Regional Response Plan and Federal Response Plan.
Objective #U.5	If the President makes a declaration, FEMA executes coordination of all Federal Consequence Management activities and resources in support of local and state government under the Federal Response Plan as directed in PDD-39.

U. S. Environmental Protection Agency (EPA)

Objective #V.1	Given notification of a possible WMD event, make internal and external notifications in accordance with the National Contingency Plan.
Objective #V.2	Given a WMD event, activate and deploy EPA assets in accordance with the National Contingency Plan.
Objective #V.3	Given deployed FBI assets, the EPA on scene coordinator provides support to the FBI SAC in accordance with the National Contingency Plan and PDD-39.
Objective #V.4	Given a FEMA activation, EPA fulfills ESF #10 duties in accordance with the Federal Response Plan
Objective #V.5	Given a radiological WMD event, deploy EPA radiation response personnel and coordinate response with DOE RAP assets in accordance with the Federal Radiological Emergency Response Plan.

END

ANNEX C

FINAL SCENARIO (September 23, 1999)

On Monday evening, September 27th, a disgruntled ex-employee places a radioactive dispersal device on the Fig County Office building's HVACC intake vent located on the roof (Area 19, Building 76). Approximately 550 Fig county and city employees work in this two-story building. This device dispersed radioactive material throughout the building through the use of a small fan connected to a timer. Fig City has an estimated population of 650,000 and has two trauma hospitals.

On Wednesday, September 29th, at approximately 4:00 p.m., office workers from the Fig County office building are arriving at the local hospitals (Good Samaritan and Lebanon VA Hospitals) and secondary care facilities. Employees are complaining of respiratory problems. Some of these walk-ins had been called by an anonymous caller who stated "that something was released in the building and that they better go to the emergency room and get looked at." From the start of the patient influx, care providers mistakenly diagnose the signs and symptoms as a chemical irritant. State health and county emergency management officials are notified by the local health system, which is now concerned with the number of patients that are being received by their hospitals. Anticipating more patients than one hospital can handle, Good Samaritan institutes its Mass Casualty plan. Based on preliminary data, state and local health officials have pinpointed the origin of the respiratory and minor skin irritation to the Fig City/County office building within two hours. The local municipality declared a "State of Emergency" upon consultation with county officials.

The local state certified Fig County hazardous materials team, along with Fig County health officials are dispatched to the office building and to the hospitals. The building's evening shift (approximately 50 people) are evacuated by local police and staged at a nearby building. Night shift employees were instructed to stay home due to an unknown chemical release in the building. Since the hazardous materials team was dispatched, the State Emergency Operations Center is then notified and briefed on the current situation, as per the Pennsylvania Emergency Information Reporting System (PEIRS) criteria. Lebanon County relays their intentions to PEMA regarding an issuance of a county declaration. At this point, PADEP, PA Health, and PA Labor and Industry are also updated on the magnitude of the "hazardous material" incident.

The HAZMAT Team arrives to find a heating and air conditioning van parked adjacent to the building with a ladder going to the roof. The HAZMAT team, enters the building, and conducts a building sweep for other employees.

Based on the number of walk-in cases reported by local hospitals, medical officials continue their symptom evaluations and diagnosis suspecting that the affected individuals may have received radiological contamination. The Nuclear Medicine Physicians and

Radiation Safety Officer from Fig County General Hospital verify this assessment. PADEP and DOE Radiation Assistance Program (RAP) representatives assess the incident scene and determine that a radioactive release was due to a malevolent act. The HAZMAT team discovers a suspicious device and note on the HVAC System located on the roof. The Local EOD team is requested to the scene.

At this point, Lebanon County issues an emergency declaration. Through enhanced patient radiation surveys, local health officials discover that the patients have received external and internal radiation exposures. Based on this information, Federal notifications are made by the State EOC. The County requests the 3rd MSD RAID element. PEMA notifies the respective area offices and they are sending an area representative to the scene. The PEMA executive staff briefs the Governor and Lt. Governor's staff on the situation. State and County officials discuss the possibility of issuing a Governor's Declaration of Emergency. A Presidential Emergency Declaration is requested through the FEMA Region III Office by the Commonwealth of Pennsylvania.

EMA, municipal police, fire/HAZMAT team, county health, DEP Emergency Response, and State health officials (moved from Incident Command to Unified Command) develop an Incident Action Plan.

Public Safety officials on scene issue a brief press release. At this time (9:30 PM) an anonymous phone call is received by county 911 that "radiological material was used in the county office building and that more radiological and explosive devices can be found at a residence somewhere in Fig City". This information is then followed by a fax (10:21 hours) that references the same. It is at this point that the local FBI office is contacted and briefed. An FBI Special Agent is now designated as the "Special Agent in Charge." The State EOC is informed by the FBI (crisis management activities) and FEMA (consequence management activities) that the Federal Response Plan is in effect. Due to the magnitude of the incident, the PEMA Press Officer is dispatched to link up with the County, PA Health, PADEP, RAID, and Federal Public Information Officer(s).

The state and local police, FBI field agents, and DOE Radiation Assistance Program (RAP) representatives are now on scene. A Unified Command Post is set up at adjacent to the FIG county/city office building. Federal, State, County and Municipal officials determine a course of action to survey and locate a suspected second device. The RAP Coordinator requests the Service Response Team (SRT) from DOE HQ.

(Issues to be addressed: PPE, Decontamination, Site Safety/Security, Communication, Employees interviews, Resident & Residence surveys, Critical Incident Stress Debriefings, EOD operations, Evidence Collection, General Public Mental Health, Press Briefings/Media Concerns, Resource Requests, Staging of Resources, etc.)

<u>2nd Days activities –</u>

The FBI establishes a Joint Operations Center. The SRT reports to the JOC SAIC and

conducts surge search training for 3rd MSD RAID, PADEP, PSP, FBI Hazmat, and Lebanon County Hazmat Team members. After several hours, the DOE AMS unit, DOE Search Response Team, 3rd MSD RAID, DEP BRP/ERT, and FBI HAZMAT team think that they have located additional radiological material in a residential area. After bringing in more sensitive equipment, the SRT has located the unknown radiological material on Lazy Eye Street at a rundown, two-story dwelling. The SRT members are getting really high readings from the radiological material. The FBI obtains a search warrant.

An Incident Action Plan (operational actions) is continually updated by the Unified Command on scene and reviewed by the JOC (Technical Support).

Meanwhile, Commonwealth survey teams from the now functional PADEP Assessment Center, have been dispatched to employee's dwellings to confirm whether on not family members, homes, vehicles, and personal belongings have been contaminated. Interviews and surveys are conducted by the 5-7 person Radiological Response Teams.
Data and samples are obtained and are taken back to the Assessment Center for further action. The PADEP Bureau of Radiation Protection's Lab is provided swipes for analysis.

As local, state, and federal law enforcement officials enter the dwelling on Lazy Eye Street, additional explosive devices are located inside along with subversive documents and publications that include instructions to build explosive devices. FBI, DOD, and local bomb technicians are requested and arrive on scene. After rendering safe the secondary and tertiary devices, the DOE representative on scene reports that a second RDD is located inside the dwelling. The RDD has a timer with 2 hours to go on it. The JOC and IC discuss their options and courses of action.

A FRMAC has staffed to Phase I. The JOC has requested and received additional communication equipment and manpower from the FBI.

Termination of the exercise will occur when it is deemed that all players objectives have been demonstrated.

ANNEX D

VIGILANT LION TIMELINE OF KEY SCENARIO EVENTS

TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
01·	Good Samaritan Hospital calls Lebanon County 911 indicating a large number of patients with same symptoms; requests assistance. 911 notifies HAZMAT unit	***PA Health confers with ATSDR CDC[.]***	
04	Lebanon County HAZMAT activates [A.1; B.1]		
05	Lebanon County HAZMAT notifies PEMA of activation [A.2; M.1]	PEMA Watch Officers enters hazmat incident into EIS/GEM in SEOC [M.12]	
06	GS Hospital activates Mass Casualty Plan [D.1]	***PA Health reviews GS Hospital mass casualty plan [.]***	
08		PEMA makes internal notifications (C/A Director). SEOC Notifies PADEP South Central Region ERT [N.1]	
10	GS Hospital calls LEMA [D.3]	***LEMA contacts SEOC, PA Health EPLO contacts PA Health Region # or name [.]***	
13		-PA DEP notifies ERTs [N.1] and closes loop with PEMA HBG Duty Officer.	

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
		-PEMA notifies contiguous counties & PA Health per PEIRS via E-Comm & fax - PA DEP notifies state and regional directors [N.2]	
17	Lebanon County activates their EOC [A.4]		
25	Lebanon County EOC operational; comm established with PEMA	PEMA establishes communications with Lebanon County EOC SEVAN & PEMARS [M.2]	
29	Lebanon County HAZMAT arrives		
33	ICS Operational at GS Hospital [B.6]		
45	Patients all work at same building; reported to ICS ICS notifies SEOC (PEMA relays to PA Labor and Industry ***Need 1-2 people staggered here, up to 10, rest simulated. *Need REAC/TS injects and EMS moulage.**	PEMA notifies PA Labor & Industry EPLOthat all patients were at the same county building ***PEMA goes to Level II***	
60 ***1-hour***	Lebanon County sends team to County Building (30-45 minutes)	PA DEP ERT assets arrive GS Hospital [N.3; N.4; N.6]	
	NOTE: RAD MAY BE IDENTIFIED WITHIN THE NEXT 30 MINUTES		

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
90			
95			
96	Lebanon County EMA requests mutual aid [A.5; C.1; C.3; possibly C.2]	PEMA receives notification of possible hazardous material contamination via ECOMM & fax from county	
97	-GS Hospital begins to survey hospital Lebanon County establishes hot, warm, and cold zones and notifies PEMA of rad event [B.4] *–NOT sure they would call PEMA -- GS Hospital Doctor may call REAC/TS for telephonic technical assistance*	PEMA sends notification of suspected event to DEP's Emergency Response Team SCRO, PSP, DMVA, PA Health, Attorney General, L & I, PA Ag, PADOT EPLOs	
105	- Fig City PD/FD sends support assets to GS Hospital [F.1; G.1] - Lebanon County HAZMAT and Hospital teams receive hits for Beta Emitters	- DEP ERT teams receive hits for Beta Emitters (confirmation) at Good Samaritan Hospital [N.3,N.4,N.9] - PEMA activates EOC to Level III - PEMA notifies BRP, PSP, DMVA, Atty Gen, contiguous counties, *******	

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
106	- Lebanon County HAZMAT sets up decon at GS Hospital - Lancaster County activates EOC [C.4] - Lebanon County HAZMAT arrives at county building & establishes ICS [B.7] - Beta info sent to EMA/PEMA	PEMA & DEP contact Brookhaven National Lab for RAP support [N.5] PEMA notifies, briefs and provides FEMA [M.3] Region III Situation Report #1. [M.8]	- BNL notifies DOE Chicago and DOE HQ of RAP request [T.1] - DOE NN-60 and DP staff arrive [T.12; T.13, T.4] - National Response Center notifies EPAC [V.1] - FEMA RIII notifies FEMA HQ Alert Staff & OFAs [U.1, U.2]
107	Lebanon County Requests a Notice to Airment to be requested	PADOT-Aviation requests NOTAM through FAA Region	FAA Region issues NOTAM for incident scene
110	Lebanon County HAZMAT notified of radiation findings	- RAID notified of the event by DMVA [P.1] - DMVA notifies CAP - DEP has media inquiries [N.11]	
113	Fig City Police Department requests mutual aid bomb squad	CAP begins to identify available assets [O.1]	756th EOD contacted and briefed.
115	- Fig City Fire and Police Departments request mutual aid - Lebanon County HAZMAT establishes ICS at county building	3rd MSD RAID activates team [P.1]	
117	Lebanon County HAZMAT evacuates county building; evacuees are contained [B.7]	American Red Cross EPLO is notified through PEMA. PEMA VOAD notified (Salvation Army etc.)	

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
120 ***2-hours***	Allentown and Reading deploys bomb squads; estimate 140 minute arrival time ***- CNN Breaking News (Place here?)***	- SEOC upgrades to Level III operational level [M.5] - PEMA activates CENIC (Public Affairs) *- BRP evaluates radiological measurements against emergency action levels. Initial protective action recommendation is made to PEMA director*	- RAP deploys to PA - ETA 4 hours [T.2] - DOE HQ Watch Office calls NN-60 and DP duty officers and reports RAP activation - CAP HQ Given mission to pick up RAP Coordinator
125	Lebanon County HAZMAT begins to survey evacuees at county building [B.8]		
128		CAP activates EOC [O.2] - PEMA notifies PADOT to close airspace	756th EOD Arrives at FIG Office Bldg. Requests additional EOD support from FBI.
135	Lebanon County HAZMAT sets up decon unit at county building [B.9]; requests mutual assistance in decontamination effort. Provides location (GPS) coordinates to 911	PEMA contacts contiguous REP risk & support counties for availability of mon/decon teams For radiological support if needed PEMA RIM&C Shop opened for TLD support	FBI Philadelphia authorizes additional EOD teams.
140			
160	Good Samaritan Hospital reports one of the patients with radiological contamination dies of complications Lebanon County Coroner Requested.	RAID team assembles at FIG [P.2] Provided Coordinates of Building by SEOC Air Operations Desk.	

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
165		PADEP/BRP Field Staff arrive on-scene at Hospital and prepare personnel for Office Building support [N.5]	
173		CAP assets identified and ready for use	
180 ***3-hours***			
205		RAID operational; equipment op-checked [P.2]	
210	- Fax received by county, Fig PD, GS Hospital, and media taking credit for rad contamination - ICS, EMA Director, Chief of Police, Hospital Administrator notified of RAD fax - Fig City police notifies Harrisburg RA of radiation and the fax	- State Police notifies Harrisburg RA (FBI) of fax and radiation contamination - SEOC Updates Harrisburg and Philadelphia FBI of event status	Harrisburg RA (FBI) notifies Philadelphia FBI Office of suspected terrorist activity [S.1]
213			Harrisburg RA begins logical investigation [S.2]. Philadelphia FBI Office notifies FBI Headquarters of the Fig City events FEMA RIII notified by FBI and LNO is deployed, ERT-A activated [U.3]
215		*SEOC deploys RAID team to county building [.]* ***PEMA deploys satellite vehicle***	Harrisburg RA deploys to Good Samaritan Hospital

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
		to scene [M.5]	
230		***RAID arrives at county building and reports to incident commander [.]***	
238			Harrisburg RA Office faxes initial logical investigation information to Philadelphia Office
240 **4-hours**	***LEMA Director asks PEMA if they should send out an EAS message***		-
245			Additional FBI Harrisburg staff deploys to Good Samaritan Hospital
250			
255		**DEP develops a PAR using EPA 400 [N.7, N.8]** PEMA issues an EAS [M.6]	**EPA Objective for PAR**
260			
270			Harrisburg RA arrives at GS Hospital and begins to interview patients [S.3]
275	Allentown and Reading bomb squads arrive at county building; reports to ICS	PEMA Constructs Situation Report #2.	
280	Bomb squads receive briefing from Incident Commander and are deployed for bomb search [I.2]		
300 **5-hours**		Lt. Governor (staff) requests air transportation (PSP, PADOT,	- DOE Emergency Management briefs DOE senior official [T.13]

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
		CAP). DEP determines radionuclide [N.10]	- Philadelphia FBI completes information package and logical investigation information and provides information to FBI HQ [S.6]
310			
315			FBI Philadelphia arrives at Fig City [S.8]
320			DOE RAP arrives [T.7] EPA makes internal/external notifications, activates, and employs EPA assets [V.1, V.2]
325			DOE RAP coordinates assessment and monitoring with other federal, state, and local assets [T.10]
355		PEMA "SHARES" Communication with Federal Agencies [M.7]	FBI HQ begins to notify other federal agencies and places DEST assets on standby
365			FBI HQ sends DOE HQ information needed to complete credibility assessment - FBI Philadelphia deploys to Fig City with bomb techs, HM tech resources and ERT [S.7] - DOE HQ activates monitoring

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
			team [T.12]
360 ***6-hours***			
375			DOE HQ requests threat assessment advise from NN-60 and Lawrence Livermore National Laboratory
380			
385			
405			FBI HQ activates and deploys DEST - ETA 6 hrs
410		RAID operates decontamination line at FIG City/County Building with LEMA HAZMAT [P.5]	
425			-DOE Emergency Management briefs DOE senior official [T.13]
430			DOE's LLNL verifies possible WMD
435			FBI Philadelphia begins to establish the JOC and implement unified command [S.8; S.9]
440		CENIC integrates with JIC	FBI activates the JIC

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
420 ***7-hours***			
455	Bomb search complete - no other devices identified		
460		RAID deployed to assess the levels of radiation in the county building	
480 ***8-hours***			
535			JIC Operational
540 ***9-hours***		RAID assessment complete	
		END OF DAY 1	
		FROM HERE ON, OPEN for Assistance on Timeline	
780			JOC Operational; SAC is coordinator of unified command for investigative purposes
	- Activate EMS units (LEMA) - Setup Mass Care Facility - Good Samaritan to Mass Care with ER Personnel (Good Sam Hospital) - Call to ARC to run Mass Care (LEMA)	Rumor Control Set-up (SEOC) EAS Message from SEOC (PEMA) Track down contamination (DEP)	*******Need EPA objectives completed for Day 1 & 2 (Bill & Marty) Have FEMA check their objectives. Have VA check objectives.***

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
	- RM's to Mass Care	Assist in surveys (DEP, PAHealth)	
0800-0900			AMS Flyover NRAT plans with PADEP to conduct home visits to employee (5 for exercise) homes
0900-1200	County Hazmat Team (played by Schuylkill County Hazmat) conducts interviews and surveys	PADEP & PA Health initiates visits	NRAT assists with visits
0800-0900			Command Post Staff Set-up
0900-1000	Local LE	LE, PSP, FBI Establish Security Perimeter by quadrant RAID assists in Search	FBI Assist in Perimeter 756th EOD, FBI, DOE SRT, PADEP/ERT execute search
1200		Locate "Subject Dwellings"	
1200-1400			FBI Clears dwelling sets new perimeter
1200-1230		3rd MSD RAID	DOE SRT establish hot/warm zone
1230-		3rd MSD RAID enters building and discovers devices EOD support request	

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TIME	LOCAL AGENCIES/EVENTS	STATE AGENCIES/EVENTS	FEDERAL AGENCIES/EVENTS
1430		EOD renders safe 2 devices, discovers RDD	

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ANNEX E

VIGILANT LION SAFETY PLAN
(Safety Plan/Checklist (1 of 6)

Scope

This plan has been included as a checklist so controllers will be able to anticipate and recognize unplanned events that could result in personal injury or unforeseen property damage. It enables event participants to be governed by the safety guidelines established for the event.

Pre-drill Safety Requirements

Controllers must be staged before the event is scheduled to begin to ensure there are no pre-existing safety concerns that could affect the start of the event. Controller assignments and locations are identified in Controller/Evaluator Binders. The Drill Lead Controller must obtain a safety check from all lead controllers prior to event commencement.

Drill Activity Boundaries and Off-Limit Areas

Drill boundaries are defined by the "extent of play" for each objective. Specific boundaries will be discussed and depicted on maps in this briefing. Safety concerns that arise during the drill will be dealt with immediately by the drill controllers in the affected area. As objectives are accomplished, certain areas may be allowed to return to normal activities.

Safety Equipment

Drill participants are required to follow all existing safety guidelines for the use of protective equipment. From the checklist below, mark an X next to the items that are applicable to this drill or exercise, and ensure that these items are provided for participants, as applicable.

____x___ controller communications
____x___ drill/exercise identification (i.e. armbands, vests, caps, etc.)
____x___ illumination devices
____x___ first aid kit
____x___ water coolers (field teams may be directed to carry their own water)
_____ water carriers (rovers may be directed to deliver water to personnel)
_____ personnel comfort items (specify)
____x___ fire extinguishers
_____ safety harnesses/lifelines, etc. (specify)
____x__ eye/hearing protection devices (specify)
____x__ gloves (specify who and when they should be worn)
_____ hard hats (specify who and when they should be worn)
____x_ other protective clothing (specify)
____x__ miscellaneous hand tools (specify)

Site Specific Hazards

Drill or exercise participants are required to follow all hazard postings in event areas. Participants must obey all traffic laws during the event. Response participants will NOT use emergency lights and sirens when responding to simulated accident scenes. Field teams will travel on designated roads and trails. Field team vehicles will be equipped with fire extinguishers and shovels. No vehicles should go off road where wildlife such as snakes and insects may be encountered. In the event of electrical storms, high winds or other severe weather, participants will follow controller instructions. Field activities should be suspended or terminated under these conditions.

Controllers and responders must be mindful of symptoms of heat/cold stress. Controllers will ensure that emergency response personnel are allowed the opportunity to rest whenever necessary. Controllers must halt drill play anytime a responder appears to be in distress and take all appropriate actions to ensure the well being of individuals.

Safety Plan/Checklist (3 of 6)

From the checklist below, mark an X next to the actual hazards that may be applicable to this drill or exercise. Special safety provisions should be made for all items checked.

___x____ traffic (field teams need to be aware of road condition hazards and traffic, especially when surveying)
___x___ terrain (field teams may be required to use unpaved roads. Each vehicle will be equipped with a fire extinguisher, a shovel and bucket, and communications capabilities)
_____ overhead obstructions
_____ electrical storms
___x___ heat stress
_____ cold stress
_____ high winds
___x___ visibility conditions (maybe during night operations)
___x___ electrical equipment hazards (halogen lights for night ops)
_____ mechanical equipment/machinery
_____ hazardous material/storage areas
_____ fuel loading concerns
_____ thermal hazards
____x__ tripping hazards
_____ confined spaces
____x__ elevated locations
____x__ hazardous materials
____x__ pest control (i.e. fire ants, wasps, snakes, ticks, mosquitoes, etc.)
____x__ personnel safety provisions (individuals responsibilities/limits)
____x__ off-site agency safety provisions (responsibilities/limits)
____x__ vehicle safety provisions (i.e. traffic laws shall be obeyed, seat belts used, etc.)
____x__ drill/exercise control provisions (i.e. safety briefings, how to handle actual emergencies, etc.)

General Safety Provisions

This section outlines personnel assignments and functions related to safety and specialized concerns. **No changes will be made to controller assignments without prior assurance that any replacements have equal or greater understanding of safety concerns that could be encountered at the location to which they are assigned**!!

All safety concerns must be brought to the attention of the Drill/Exercise Lead Controller Tom Hughes-PEMA and the Drill/Exercise Safety Lead, Tom Doherty-OSHA through the controller organization.

Specific incidents and materials that may have adverse effects on people have been addressed in specific sections of the scenario manual. Every effort has been made to anticipate and minimize hazardous situations inherent in this drill/exercise. From the checklist below, mark an X next to the safety provisions that are applicable to this drill or exercise, and ensure that these provisions are communicated to participants and/or enforced.

___x___ individual participants are personnel responsible for their individual safety
___x___ each participant who observes another person injured or otherwise in need of assistance will immediately cease drill/exercise activities and render aid/call for assistance
___x___ all injuries, no matter how slight, must be immediately reported to the nearest controller
___x___ all ascents or descents from elevated heights will be by ladder, stairway or other safe method. Jumping from elevated positions is not allowed
___x___ controller must be familiar with the hazards of the equipment involved and the required safety measures (rad source material & detection equiptment.)
___x___ actual emergencies will be dealt with by a shadow force. If an emergency occurs that requires drill/exercise responders to assist, the Lead Controller will suspend or terminate part or all of drill play as he/she deems necessary

Security/Public Safety Provisions

From the checklist below, mark an X next to the security and public safety provisions that are applicable to this drill or exercise. Special safety provisions should be made for all items checked.

___x___ a backup or "shadow" force (fire, EMS and police) is in place to ensure community coverage is not impacted by event response (FIG FD)
___x___ event calls should/may go to non-emergency lines to ensure that actual "9-1-1" calls are handled expeditiously
___x___ security personnel must keep firearms holstered at all times during the drill/exercise
___x___ drill/exercise play will be suspended in the event of an actual emergency
___x___ emergency vehicles will respond without lights and sirens
___x___ cordoning off of large public areas will be simulated. (case by case basis)
___x___ rerouting traffic will be simulated

Vehicle Safety Provisions

From the checklist below, mark an X next to the vehicle safety provisions that are applicable to this drill or exercise. Ensure that these provisions are communicated to participants and/or enforced.

___x___ no vehicle will be driven in such a manner that posted speed limits are exceeded or safe driving rules are violated
___x___ only those vehicles involved in the drill/exercise will be used for movement
___x___ vehicles may not be mounted or dismounted until they come to a complete stop
___x___ spotters will be used when backing vehicles out of areas where other people or vehicles are present
___x____ roadblocks will be simulated by placing a blocking vehicle on the shoulder of the road and notifying a controller that a roadblock has been established
___x___ all accelerations, decelerations, cruising, turns, etc., will be accomplished in a safe manner
___x___ seat belts must be worn in moving vehicles if the vehicle is equipped with them

This completed Safety Checklist should be kept as part of the hard-copy documentation file for drill planning for this event.

_____	9/28/99
Thomas S. Hughes, CEM PEMA Radiological Officer	Drill Date

ANNEX F

FOR OFFICIAL EXERCISE USE ONLY

VIGILANT LION Exercise Communication Guide

A radio net is authorized, engineered, and employed for mission essential support of a functional mission when there is a clearly demonstrable need for two-way radio voice communications to control, direct, or coordinate the actions or movements of ground vehicles and personnel within a geographical base environment. The net is an organization of stations capable of direct communications on a common frequency. Intrabase radio nets are classified as either general or special purpose. Some examples of the general-purpose nets that will be used during this exercise will be the Ft. Indiantown Gap Fire, EOD, Security, etc., emergency frequencies.

Land mobile radios that sponsor organizations will use will provide two-way communication. A two-way communication system normally consists of a base station or remote control, and portable or mobile units. Radio waves normally travel in a straight line. The maximum range of your radio system is the distance to the horizon, as it appears from the radio's antenna. Other factors that may affect coverage, includes barriers such as high steel buildings or irregularities in the terrain that cause a "dead spot(s)." Dead spots can be overcome by turning and facing a different direction. Portable units usually have less power than base stations and may have difficulty reaching the base station radio.

Operation is divided into three main areas: ***Operator maintenance, transmission, and radio checks.***

a. Everyone using radio equipment should ensure they:

(1) Keep outside covers clean. Don't allow water or cleaning materials to enter the unit and don't use cleaning materials that will harm the finish of the unit. (i.e. solvents or abrasives)

(2) Charge portable units to provide peak performance. Eight hours of continuous use is about maximum for portable units.

b. ***Radio transmission should be short and concise. Speak in natural phrases, not word-by-word. During transmission of a message, you should pause periodically to allow other stations to break in if necessary. To avoid interfering with other radio traffic, listen and make sure that the circuit is clear before transmitting. When making contact with other stations, always use your full call signs. For example:***

Caller 1 transmits: "Call 2 THIS IS caller one – OVER."
Caller 2 answers the initial call: "Call 1 THIS IS caller 2 – OVER."

MANDATORY!!!! - All Vigilant Lion Exercise Transmissions will be pre-empted and terminated with "This is an Exercise Message" The code word for exercise health

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injuries will be LIFESAVER. All exercise activities will cease (TIMEOUT) when LIFESAVER is transmitted and only communication to assist the incident will be permitted on exercise nets. The exercise will only commence when controllers tell you that the exercise TIMEOUT has been recinded.

c. Use radio checks to determine readability and signal strength between two units. A station is understood to have good signal strength and readability unless otherwise notified. If you notify another unit of their signal strength and readability, use a short and concise report, such as: "weak but readable", "loud, but distorted", weak with interference", etc. Be cautioned that radio transmissions are subject to public scanners. Avoid transmitting the operator's personal sign or name.

Common sense should suffice for operating requirements not covered under communication security. Good radio discipline avoids the following practices:

a. Unofficial conversation between operators.
b. Excessive testing.
c. Profane, indecent, or obscene language
d. Giving false distress calls or call signs.

Jamming is the deliberate radiation or re-radiation of energy with the object of impairment. Interference is identified as any degradation that limits the effective performance of electrical or electronic equipment. When experiencing interference or jamming, attempt to identify the source and report it to your organization communication specialist or USAF HAMMER ACE representative.

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PORTABLE RADIO BASIC OPERATIONS GUIDE

1. *Turn on, set volume, set squelch, and monitor. Rotate the volume (VCL) control clockwise about one-half turn.*

2. *Rotate the squelch (SQ) control to the maximum counterclockwise position.*

3. *If your radio is a "Private-Line" (PL) model place the PL switch in the off position.*

4. *If your radio is a selective call model, place the page/talk (PT) switch in the T position.*

5. *With the antenna fully extended, listen for a broadcast and set the volume control to a comfortable listening level.*

6. *When the channel is clear, slowly turn the SQ control clockwise until the noise just stops. This is the threshold setting. DO NOT turn the control further. Excessive squelch reduces the sensitivity of the radio and may prevent reception.*

7. *Set the frequency elector switch (multi-frequency models) to the desired frequency and monitor the channel for broadcast. If the channel is clear set the PL switch in the on position and prepare to transmit.*

8. *Hold the radio with the fully extended antenna in a vertical position and with the speaker-microphone grille about two inches from your lips.*

9. *Press the push-to-talk switch on the side of the housing and speak slowly and clearly across the grille area. When finished transmitting, release the push-to-talk switch to receive.*

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PHONETIC ALPHABET

LETTER EQUIVALENT		*LETTER EQUIVALENT*	
A	*ALPHA*	*N*	*NOVEMBER*
B	*BRAVO*	*O*	*OSCAR*
C	*CHARLIE*	*P*	*PAPA*
D	*DELTA*	*Q*	*QUEBEC*
E	*ECHO*	*R*	*ROMEO*
F	*FOXTROT*	*S*	*SIERRA*
G	*GULF*	*T*	*TANGO*
H	*HOTEL*	*U*	*UNIFORM*
I	*INDIA*	*V*	*VICTOR*
J	*JULIET*	*W*	*WHISKEY*
K	*KILO*	*X*	*X-RAY*
L	*LIMA*	*Y*	*YANKEE*
M	*MIKE*	*Z*	*ZULU*

Phonetic equivalents are desirable in expressing lettered coordinates, in operational order, or ordering equipment by letter and number. ***They will not be used****:*

1. *When names are transmitted: example, use J C Porter or John Cook Porter instead of Juliet Charlie Porter.*

2. *When the actual word might be more definitive: example, 26 degrees West instead of 26 degrees Whiskey.*

VOICE COMMUNICATION PROCEDURES

WHAT TO DO	WHY TO DO IT
I. LISTEN	A. To make sure your transmission won't interfere with another communication
	B. To be aware of other things going on.
II. THINK about what you will say before you transmit.	A. To communicate your idea effectively.
	B. To use only the air time needed and no more.
III. MAKE THE CALL. Give:	
A. The call sign or identification of the station called	A. To be clear.
B. The words "THIS IS."	B. To be understood reliably on the first call.
C. The call sign or identification of the calling station.	C. To use a procedure that is universally accepted.
IV. COMMUNICATE	
Speak Clearly.	A. To be understood.
Plain language; no codes.	B. To be fast.
Repeat back critical items for confirmation.	C. To avoid confusion. D. To be accurate.
V. USE PHONETICS for:	
A. Call Signs.	A. To be clear.
B. Station Identification.	B. To be accurate.
C. Spelling words and names that are easily understood	C. To be fast. D. To use a procedure that is universally accepted.
**As taken from the Federal Emergency Management Agency Urban Search and Rescue Response System Field Operations Guide, September 1, 1993.*	

VIGILANT LION EXERCISE ANNEX G

USAF-Hammer Ace-
TSG Tom Kinney
HEADQUARTERS AIR FORCE COMMUNICATION CMD
HQ/AFCC/DOXZ, SPECIAL COMM DIVISION
SCOTT AFB, IL

Although there were some initial glitches with communication support, the communication infrastructure was able to support the exercise and all of the objectives. This being said, we have the following observations.

Observation One: Roles of communication support teams and capabilities of communications assets they deployed were not clear.

Recommendation: These are issues that are identified and responsibility assigned in planning conference, do not deviate from established plan unless need dictates.

Observation Two: ***Up channel reporting of information was not always timely or discriminated.***

Recommendation: This responsibility again needs to be established and published in the working groups prior to the exercise. Control cells need to be established and good wire diagrams for agency/cell interaction need to be developed. It is also at this point the communications working group can assess each cells requirement and develop a scheme and obtain necessary equipment or frequencies for the command and reporting information flow. As a communications troop this often means being able to identify others requirements. The working groups established for other cells will have functional area experts, but their expertise is in their functional area not communications.

Observation Three: Health of communications network was not actively monitored.

Recommendations: Functional experts must take an active role in ensuring their systems are healthy and satisfying user requirements. This includes user education and active intervention when problems are identified.

Observation Four: All communication was clear, and as such subject to monitoring. This communication insecurity may have adverse ramifications. The press may have access to information that does not need to be released. Also the hostile faction may well be able to gather information and this too may have adverse consequences.

Recommendation: A method needs to be identified to secure communications. If the DoD system is too restrictive with its authorized user constraints – then another system needs to be solutioned.

ANNEX H

RELEASE AND HOLD HARMLESS AGREEMENT

1. PRIVACY ACT STATEMENT: Personal data is solicited under authority of 10 USC 3012 and AR 27-40. The information is for use to determine eligibility for voluntary participation in the Vigilant Lion Exercise in the area of Ft. Indiantown Gap. Disclosure of requested information is voluntary, but failure to disclosure all or any part of it may result in denial of permission to participation in such activities scheduled for September 28-30, 1999.

2. PERSONAL DATA:

NAME: _____ AGE:_____
First Middle Last

ADDRESS: _____ CITY: _____ STATE: ____ ZIP: _____

Person to be notified in case of emergency _____

Relationship _____

ADDRESS: _____ CITY: _____ STATE: _____ZIP: _____
(If different than above)

TELEPHONE: Area Code: _____ Number: _____- _____

3. DECLARATION: I desire to participate at my own risk in the activity described above. I represent that I will take all safety precautions necessary thereto, assuming sole and full personal responsibility for ensuring that all reasonably foreseeable safety requirements are met to my personal satisfaction prior to my active participation in such activity. I state that I am in good health, physically fit to engage in this activity, and have no known medical condition which could foreseeably jeopardize my safety during such participation or be aggravated by such participation. As a condition precedent to my being permitted engage or participate in such activity, I personally hereby forever release, acquit, discharge, indemnify and hold harmless the United States, it's agents, officers, and employees, from any and all causes of action, including personal injury, illness, death, and property damage, costs, charges, claims, demands and liabilities of whatever kind, name or nature in any manner arising out of or in connection with my participation in the indicated activity. I understand and agree that I may be held liable for any damage or loss to the United States Government that is caused by my negligence, willful misconduct, or fraud while participating in this activity. I further understand that any and all buildings at Fort Indiantown Gap may contain lead paint and/or asbestos and willingly accept any responsibility or possible danger associated with those elements.

9/28/99
DATE

_____
Signature of Participant

_____
Printed Name of Participant

ANNEX I

COMMONWEALTH OF PENNSYLVANIA
Department of Military and Veterans Affairs
Emergency Management Agency
Commonwealth News Bureau
Room 308, Capitol
Harrisburg, PA 17120

NEWS ADVISORY

DATE: April 14, 2000

TO: Editors, News Directors
and Capitol Correspondents

FROM: John P. Maietta, Press Secretary, DMVA
(717) 861-8720
Marko Bourne, Press Secretary, PEMA
(717) 651-2139

SUBJECT: **Joint exercise at Fort Indiantown Gap to test civilian and military response to mock terrorist attack**

Event will kick off with media briefing at 9:30 a.m. Wednesday Sept. 29

On Sept. 29 and 30, Fort Indiantown Gap will host a large-scale field training exercise, testing the response of civilian and military officials to a mock terrorist attack. The Pennsylvania Emergency Management Agency is conducting the exercise, in cooperation with the U.S. Department of Energy, the Pennsylvania National Guard, and more than 30 other county, state and federal agencies.

Dubbed "Vigilant Lion," the exercise will involve more than 300 individual participants, reacting to the gradual discovery of a simulated terrorist device. The event will include the first deployment of the Guard's newly established 3rd Military Support Detachment, specially trained and equipped to assist civilian authorities in responding to incidents involving "weapons of mass destruction." News media are invited to cover the exercise, beginning with a press briefing at 9:30 a.m. on Wednesday, Sept. 29. To avoid disrupting the exercise, photographers are asked to comply with the same ground rules that would apply during an actual emergency – i.e., close access to the scene may be limited by the incident commander if there is an imminent threat of danger to the public.

# # #

Directions to the briefing: From I-81, take exit 29B and proceed onto Fort Indiantown Gap. From the stoplight, proceed on the main road (Fisher Road) an additional 1.3 miles. Turn right on Blair Road, then immediate left on Hawkins Street. The media center (building 4-81) is the first building ahead on the right. Park in the open field to the front.

ANNEX J

Organization Point of Contact(s)	Organization Point of Contact(s)
PA Emergency Management Agency Tom Hughes, Radiological Officer Bureau of Operations & Training 2605 Interstate Drive Harrisburg PA 17110 717-651-2001 thughes@state.pa.us	US Department of Energy Steve Centore 55 Bell Ave Brookhaven National Labs Upton NY 516-344-7309 centore@bnl.gov
PA State Police Capt. Jeffrey Davis Bureau of Emergency & Special Ops 171 E. Hershey Park Drive Hershey PA 17033-0444 717-787-4969 jdavis@state.pa.us	Federal Bureau of Investigations Chris Rigopolous 8th FL, 600 Arch St, Wil Philadelphia PA 19106 (215) 418-4097 CRIGOPOU@LEO.GOV
PA Depart. of Environmental Protection Marty Vyenielo, Emergency Response Bureau of Radiation Protection Rachel Carson State Office Bldg. PO Box 8469 Harrisburg PA 17105-8469 (717) 787-2699 vyenielo.martin@dep.state.pa.us	Environmental Protection Agency, RIII William E. Belanger Regional Radiation Specialist Energy, Radiation & Indoor Env. Branch 1650 Arch St., 3AP23 Air Protection Div. Philadelphia PA 19103-2029 215-814-2082 belanger.bill@epamail.epa.gov
PA Depart. of Military & Veteran Affairs Richard Dyke Military Support to Civil Authorities Ft. Indiantown Gap Annville PA 17003-5002 (717) 861-8829 dykerc@pa-arng.ngb.army.mil	Federal Emergency Management Agency Region III Dave Hall, Chief Response Operations Branch 615 chestnut St 6th Fl Philadelphia PA 19106 (215) 931-5660 david.hall@fema.gov
PA Depart. of Public Welfare Linda Williams Office of Mental Health & Substance Abuse Svcs Rm 206 Beechmont Bldg, PO Box 2675 Harrisburg, PA 17105 (717) 772-7934 lwilliams@dpw.state.pa.us	PA Dept. of Environmental Protection Charles High, Program Coordinator Emergency Response Program Rachel Carson Bldg, 16th Fl PO 2063-4000 Harrisburg, PA 17105-2063 (717) 787-5027 high.charles@dep.state.pa.us

PA Department of Health Chiquita Morrison, EMS Program Spec. Emergency Medical Services Office PO Box 90 Harrisburg PA 17108 717-787-8740 cmorrison@health.state.pa.us	NAVSCOLEOD Det Indianhead Kenneth Erickson, SSGT 101 Strauss Ave, Bldg. 1662 Indian Head, MD 20640-5035 (301) 744-6611 ericksonkc@ih.navy.mil
Lebanon County EMA Clyde Miller, Emerg. Mgmt. Coordinator Rm#19 400S 8th St. Lebanon PA 17042 717-272-7621 lema5@lmf.net	Lancaster County EMA Brenda Pittman, EMS Coordinator PO Box 219 Manheim PA 17545-0219 (717) 664-1200 bbp205@co.lancaster.pa.us
Good Samaritan Hospital Joan Gill, Director of Administration Fourth & Walnut Sts., PO Box 1281 Lebanon, PA 17042 (717) 270-7727 JGill@gshleb.com	Civil Air Patrol Pennsylvania Wing Headquarters Richard Gale, Major Building 3-108, Ft. Indiantown Gap Annville, PA 17003-5002 (717) 861-2335 pawghqcap@aol.com
Ft. Indiantown Gap Police Department John Wurley, Chief 75 Wiley Rd, Bldg. 7-5 Annville PA 17003-5002 (717) 861-2727	Ft. Indiantown Gap Fire Department Jay Bachman, Chief 5-117 Fisher Ave Annville PA 17003-5002 (717) 861-2111
United States Air Force HQ/AFCA/SYH Attn: HAMMER ACE 203 W Losey St. Scott AFB IL 62225 (618) 256-3431 Thomas.Kinney@scott.af.mil	

Annex K

PENNSYLVANIA EMERGENCY MANAGEMENT AGENCY

ACRONYM LIST

AC	Assessment Center (DEP/BRP)
ACP	Access Control Point (Law Enforcement)
AEOC	Alternate State Emergency Operations Center
AFRCC	Air Force Rescue Coordination Center
AFSS	Automated Flight Service Station
ALARA	As Low as Reasonably Achievable
ALS	Advanced Life Support
AMS	Aerial Measuring System
AFNSEP	Air Force National Security Emergency Preparedness Division
ALERT	Automated Local Evaluation in Real Time
ANS	Alert and notification system
ARAC	Atmospheric Release Advisory Capability
ARATCC	Air Route Traffic Control Center
ARC	American Red Cross
ARCCC	Accident Response Capability Coordinating Committee
ARES	Amateur Radio Emergency Service
ARG	Accident Response Group
ARL	Activities-Results List
ARMAT	Advance Radiological Monitoring and Assessment Team
ARRL	American Radio Relay League
ASH	Assist. Sec. Of Health, Dept. of Health and Human Services
ATF	Bureau of Alcohol, Tobacco and Firearms (US Treasury)
ATSDR	Agency for Toxic Substance and Disease Registry
BHG	Brookhaven Group
BLS	Basic Life Support
BNL	Brookhaven National Labs (DOE)
BOA	Bureau of Administration (PEMA)
BOOT	Bureau of Operations & Training (PEMA)
BPP	Bureau of Plans and Preparedness (PEMA)
BRP	Bureau of Radiation Protection (PEMA)
BTS	Bureau of Technical Services (PEMA)
CAMEO	Computer Aided Management of Emergency Operations
CAP	Civil Air Patrol
CARL	Computerized Activities-Results List
CAT	Crisis Action Team
CB	Citizens Band Radio
CBR	Chemical - Biological - Radiological

cc	Cubic Centimeter
C&C	Command and Control
CCA	Comprehensive Cooperative Agreement
CCP	Casualty Collection Point
CCS	Contamination Control Station
CDC	Centers for Disease Control and Prevention
CDCE	Contamination Disposal Coordinating Element
CDE	Committed Dose Equivalent
CEDE	Committed Effective Dose Equivalent
CDRG	Catastrophic Disaster Response Group
CDRG, EST	Catastrophic Disaster Response Group, Emergency Support Team
CDV-700	Survey Meter (Geiger Mueller)
CDV-715	Survey Meter (Geiger-Mueller)
CDV-730	Self-reading dosimeter with a scale from 0-20R
CDV-742	Self-reading dosimeter with a scale from 0-200R
CENIC	Commonwealth Emergency News and Information Center
CEO	Chief Executive Officer
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
C&ETL	Containment and Effects Team Leader
C&ETM	Containment and Effects Team Manager
CEWG	Containment and Effects Working Group
CFA	Cognizant Federal Agency
cfm	Cubic Feet Per minute
CFR	Code of Federal Regulations
CHEMTREC	Chemical Manufacturers' Assoc. Chemical Transportation Emergency Center
CHIP	Capability and Hazard Identification Program
CHRIS	Chemical Hazards Response Information System
ci	Curie
CINT	Crisis Incident Negotiations Team (FBI)
CIRG	Critical Incident Response Group
CLEAN	Commonwealth Law Enforcement Assistance Network
CMC	Crisis Management Coordinator (FBI)
CMRT	Consequence Management Response Team
CMT	Crisis Management Team
CMU	Crisis Management Unit (FBI)
CNU	Crisis Negotiation Unit (FBI)
COE	U.S. Army Corps of Engineers
COG	Continuity of Government
COMMO	Communications
COMSEC	Communication Security
CONPLAN	Federal Concept Plan
COSIN	Control Staff Instruction
cpm	Counts per minute
CR	Congressional Relations
CRC	Crisis Response Cell

CRM	Crisis Resource Manager
CRN	Computer Reporting Network
CRP	Crisis Response Plan (FBI)
CRT	Crisis Response Team (FBI)
CT	Counter-terrorism
CTCA	Communicated Threat Credibility Assessment
CSEPP	Chemical Stockpile Emergency Preparedness Program
CWA	Clean Water Act
DA	Designated Area
DAT	Damage Assistance Team
DATL	Device Assessment Team Leader
DATM	Device Assessment Team Member
DADMIN	Director, Bureau of Administration (PEMA)
DBOOT	Director, Bureau of Operations & Training (PEMA)
DBOP	Director, Bureau of Plans (PEMA)
DBTS	Director, Bureau of Technical Services (PEMA)
DCA	Department of Community Affairs
DCA-622	Commercial dosimeter similar to CDV-730
D & C	Direction and Control
DCF	Dose Conversion Factor
DCNR	Department of Conservation and Natural Resources
DCO	Defense Coordinating Officer
DEP	Department of Environmental Protection
DEO	Director of Emergency Operations (DOE/HQ)
DES	Data Encryption Standard
DEST	Domestic Emergency Support Team (FBI)
DFO	Disaster Field Office (FEMA, PA)
DGS	Department of General Services (PA)
DHHS	Department of Health & Human Services
DIATL	Diagnostics Team Leader
DIATM	Diagnostics Team Manager
DISTM	Disablement Team Manager
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Team (NDMS)
DMVA	Department of Military and Veterans Affairs (PA)
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOH	Department of Health
DOI	U.S. Department of Interior
DOJ	Department of Justice
DOP	Disaster Operations Plan
DOT	U.S. Department of Transportation
DP	Defense Programs (DP)
DPAW	Deputy Public Affairs Officer
DPW	Department of Public Welfare

DRC	Disaster Recovery Center
DRL	Derived Response Level (DEP/BRP)
DRM	Disaster Recovery Manager
DSCO	Deputy State Coordinating Officer
DSFO	Deputy Senior FEMA Official
DSO	Director Site Operations
DSR	Damage Survey Report
DT	Domestic Terrorism (FBI)
DTN	Data Transmission Network (Weather Radar Computer)
E	Emergency (Title V of P.L. 93-288, Section 102-1)
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency classification level
ECOMM	(Satellite/Electronic Communications)
EDE	Effective Dose Equivalent
EDES	Electronic Data Exchange System
EDP	Electronic Data Processing
EDPC	Electronic Data Processing Coordinator
EEE	Emergency Engineering Equipment
EHTR	Emergency Highway Traffic Regulation
EICC	Emergency Information and Coordination Center (FEMA)
EIS	Emergency Information Systems (State)
EIS/C	Emergency Information System/Chemical (State)
EMA	Emergency Management Agency (local, county, state or federal)
EMAC	Emergency Management Advisory Committee
EMC	Emergency Management Coordinator (local or county)
EMND	Emergency Management & Non-Proliferation Division
EMP	Electromagnetic Pulse
EMRT	Emergency Medical Response Team (US VA)
EMS	Emergency Medical Systems
EMS	Emergency Management Specialist
EMS	Emergency Medical Services
EMS	Emergency Management System (DOE Order 5500.1A)
EO	Executive Order
EOC	Emergency Operations Center
EOD	Explosive Ordnance Disposal (U.S. Army or civilian team)
EODCC	Explosive Ordnance Disposal Control Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
EOV	Emergency Operations Vehicle (FEMA MERS)
EPA	U. S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EPG	Emergency Planning Guide
EPI	Emergency Public Information
EPLO	Emergency Preparedness Liaison Officer

EPZ	Emergency Planning Zone
EPZ	Plume Exposure Pathway
ERAMS	Environmental Radiation Ambient Monitoring System (US EPA)
ERC	Emergency Response Coordinator (ERC)
ERU	Evidence Response Unit (FBI)
ERO	Emergency Response Officer
ERT	Environmental Response Team (US EPA)
ERT	Emergency Response Team (PA DEP or FEMA)
ERT-A	Emergency Response Team Advance Element
ERT-N	Emergency Response Team National
ERV	Emergency Response Vehicle
ESCS	Emergency Satellite Communication System
ESF	Emergency Support Function
ES&H	Environment, Safety, and Health
EST	Emergency Support Team
ETO	Exercise/Training Officer
FAA	Federal Aviation Administration
FAsT	Field Assessment Team
FBI	Federal Bureau of Investigation
FBI OSC	Federal Bureau of Investigation On-Scene Commander
FCC	Federal Communication Commission
FCFO	Federal Coordination Field Office
FCO	Federal Coordinating Officer
FCP	Forward Control Point
FCRM	Fundamentals Course for Radiological Monitors
FCRO	Fundamentals Course for Radiological Officers
FCRRT	Fundamentals Course for Radiological Response Team
FDA	Food and Drug Administration
FECA	Federal Employes Compensation Act
FECC	Federal Emergency Communication Coordinator
FEMA	Federal Emergency Management Agency
FERC	FEMA Emergency Response Capability
FESC	Federal Emergency Support Coordinator
FIDLER	Field Instrument for the Detection of Low-Energy Radiation
FmHA	Farmer Home Administration
FNS-USDA	Food and Nutrition Service, the U.S. Department of Agriculture
FPEIS	Final Programmatic Environmental Impact Statement
FRERP	Federal Radiological Emergency Response Plan
FRCM	FEMA Regional Communication Manager
FRMAC	Federal Radiological Monitoring and Assessment Center
FRMACD	Federal Radiological Monitoring and Assessment Center Director
FRMAP	Federal Radiological Monitoring and Assessment Plan
FRP	Federal Response Plan
FSA	Forward Staging Area
F/S/L	Federal, state, local

FTCA	Federal Tort Claims Act
FTS	Federal Telecommunications Systems
FTSL	Federal Technical Support Location
GAR	Governor's Authorized Representative
GIS	Geographic Information System
GMT	Greenwich Mean Time
GPS	Global Positioning System
HAMMER ACE	Scott Air Force Base (Communication package)
HAZMAT	Hazardous material
H&E	Hazards & Effects
HE	High Explosive
HET	Hazards Evaluation Team
HF	High Frequency (3-30 Mhz)
HLW	High Level Waste
HMRU	Hazardous Material Response Unit (FBI-Lab, Quantico, VA)
HPGe	High Purity Germanium Spectroscopy
HRGS	High Resolution Gamma Spectroscopy
HRT	Hostage Rescue Team (FBI)
HVA	Hazards Vulnerability Analysis
I&A	Intelligence and Assessment
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
ICW	in coordination with
IDTL	Identification Team Leader
IDTM	Identification Team Manager
IED	Improvised Explosive Devise
IEMS	Integrated Emergency Management Systems
IINNFO	Interagency Information Network for NEST Field Operations
IMA	Individual Mobilization Augmentee
IMS	Incident Management System
IND	Improvised Nuclear Device
INMARSAT	International Maritime Satellite
IR	Infrared
IRD	Information Resources Division (FBI)
IRP	Immediate Response Party (see AAT)
IRZ	Immediate Response Zone
IST	Incident Support Team
ISU	Investigative Support Unit
JHEC	Joint Hazards Evaluation Center
JHECD	Joint Hazards Evaluation Center Director
JIC	Joint Information Center
JIS	Joint Information System
JMMO	Joint Medical Mobilization Office
JNACC	Joint Nuclear Accident Coordinating Center

JOA	Joint Operations Area
JOC	Joint Operations Center
JTF	Joint Task Force
JTF-CM	Joint Task Force-Consequence Management
JTIC	Joint Tactical Intelligence Cell
JTOC	Joint Technical Operations Cell
JTOT	Joint Technical Operations Team
JTTF	Joint Terrorism Task Force
KI	Potassium Iodide
LCEMA	Lancaster County Emergency Management Agency
LCO	Local Coordinating Officer
LD	Laboratory Division (FBI)
LEMA	Lebanon County Emergency Management Agency
LEPC	Local Emergency Planning Committee
LEU	Low-enriched Uranium
LFA	Lead Federal Agency
LFO	Lead Federal Official
L & I	Labor and Industry (PA)
LLD	Lower Limit of Detection
LLNL	Lawrence Livermore National Laboratory
LLW	Low Level Waste
LNO	Liaison Officer
LOA	Letter of Agreement
M&A	FRMAC Monitoring & Analysis Division
MADU	Materials and Devices Unit (FBI)
MARS	US Army Military Affiliate Radio System
MCC	Message Control Center
MCL	Maximum Contaminant Level
MCM	Message Center Messenger
MERS	Mobile Emergency Response Support Detachments (FEMA)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MM&T	Menial, Mundane, and Trivial
mph	Miles per hour
mr	milliroentgen
mr/hr	milliroentgen per hour
M & S	Maintenance and Services Program
MRAT	Medical Radiological Assistance Team (DOD)
MRE	Meals Ready to Eat
MSEL	Master Scenario Events List
MTM	Message Traffic Manager
Mw	Megawatt
NAREL	National Air and Radiation Environmental Lab (EPA Montgomery, AL)
NAWAS	National Attack Warning System
NBC	Nuclear, Biological, and Chemical

NCAVC	National Center for the Analysis of Violent Crime (FBI)
NCP	National (Oil & Hazardous Substances Pollution) Contingency Plan
NCSP	National Communications Support Plan
NCSRM	National Communications System Regional Manager
NDA	National Defense Area
NDMOC	National Disaster Medical Operations Center
NDMS	National Disaster Medical System (US HHS)
NDMSOSC	National Disaster Medical System Operations Support Center
NECC	National Emergency Coordination Center
NEST	Nuclear Emergency Search Team
NFDA	National Funeral Directors Association
NGB	National Guard Bureau
NICC	National Interagency Coordination Center
NIOSH	National Institute for Occupational Safety and Health
NMC	National Meteorological Center
NMRT	National Medical Response Teams
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Interest
NRAT	National Radiological Advisory Team
NRC	Nuclear Regulatory Commission; National Response Center
NRT	National Response Team
NSD	National Security Division (FBI)
NSSE	National Security Special Event (US Secret Service)
NUREG	Nuclear Regulation
NWS	National Weather Service
NWSO	National Weather Service Office
OA	Office of Administration (PA)
OEP	Office of Emergency Preparedness (US HHS)
OEMP	Office of Emergency Medical Preparedness (US VA)
OPORD	Operational Order
OPS	Operations
OPSEC	Operations Security
ORAU	Oak Ridge Associated Universities
ORISE	Oak Ridge Institute for Science and Education
ORM	Other Regulated Materials
OSC	On-Scene Coordinator
OSHA	U.S. Occupational Safety and Health Administration
PA	Public Address, Public Affairs
PAANG	Pennsylvania Air National Guard
PAARNG	Pennsylvania Army National Guard
PAG	Protective Action Guide
PAO	Public Affairs Officer
PAR	Protective Action Recommendation
PAST	Protective Action Support Team (DEP/BRP)
PAWAS	Pennsylvania Warning System

PAWG	Pennsylvania Wing
PAWG CAP	Pennsylvania Wing Civil Air Patrol
PAZ	Protective Action Zone
PBAPS	Peach Bottom Atomic Power Station
PDA	Preliminary Damage Assessment
PDD	Presidential Decision Directive
PEHSC	Pennsylvania Emergency Health Services Council
PEIRS	Pennsylvania Emergency Incident Report System
PEMA	Pennsylvania Emergency Management Agency
PEMARS	Pennsylvania Emergency Management Agency Radio Systems
PEMC	Pennsylvania Emergency Management Council
PennDOT	Pennsylvania Department of Transportation
PEP	Plume Exposure Pathway
PES	Personal Earth Station
PEWANS	PEMA Emergency Warning and Notification System
PF	Protection Factor
PIO	Public Information Officer
PIR	Priority Information Request (FBI)
PL	Public Law
PNG	PA National Guard
POD	Point of Departure
P&OTL	Plans & Operations Team Leader
P&OTM	Plans & Operations Team Member
PPE	Personal Protective Equipment
PPP	Population Protection Planning Program
PSP	Pennsylvania State Police
PUC	Public Utility Commission
PX	Nuclear Explosive Packaging Expert
PZ	Precautionary Zone
R	Roentgen
RAD	Radiation Absorbed Dose
RAID	Rapid Assessment, Identification, and Detection
RASCAL	Radiological Assessment System for Consequence Analysis
REM	Radioactive Effect on Man
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RADCON	Radiological Control Team
RAM	Radioactive Material
RAP	Radiological Assistance Program (US DOE)
RAT	Radiological Assistance Team
RD	Restricted Data
RDD	Radiation Dispersal Device
REACT	Radio Emergency Associated Communications Teams
REAC/TS	Radiological Emergency Assistance Center/Training Site
REC	Regional Emergency Coordinator

RECC	Regional Emergency Communications Coordinator
Region I	U. S. Department of Energy, Brookhaven National Labs, Upton, NY
Region III	U. S. Federal Emergency Management Agency, Philadelphia
Region III	U. S. Environmental Protection Agency, Philadelphia
REM	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness Program
RERO	Radiological Emergency Response Operation
RERP	Radiological Emergency Response Plans
RERT	Radiological Emergency Response Team
RERP	Radiological Emergency Response Procedures
RF	Radio Frequency
RIDIC	Radiation Internal Dose Information Center (DOE Oakridge)
RM	Radiological Monitor
RML	Radiation Measurements Laboratory (DOE/BRP)
RO	Radiological Officer (PEMA/County)
ROC	Regional Operating System (FEMA)
ROD	Record of Decision
ROST	Regional Operational Support Team (FEMA)
RRP	Regional Response Plan (DOE)
RRT	Radiological Response Team (PEMA)
RSL	Remote Sensing Lab (DOE, Nellis AFB)
RST	Rapid Start Team (FBI)
RSO	Radiation Safety Officer
SA	Staging Area
SAD	State Active Duty
SAR	Search and Rescue
SAS	Scientific Analysis Section, Laboratory Division (FBI)
SAT	Search Augmentation Team (DOE)
SCBA	Self-Contained Breathing Apparatus
SCO	State Coordinating Officer
SEOC	State Emergency Operations Center (@ PEMA HQ)
SEMA	State Emergency Management Agency
SERC	State Emergency Response Commission
SERL	Significant Events Response Level
SERT	Special Emergency Response Team (PA State Police)
SEVAN	State Emergency Voice Alerting Network (PEMA, County EMA)
SFC	State Fire Commissioner
SFO	Senior FEMA Official
SIED	Sophisticated Improvised Explosive Device
SITREP	Situation Report
SIOC	Strategic Information Operations Center (FBI)
SLG	State and Local Guide
SLPSD	State and Local Programs Support Division
SNM	Special Nuclear Material
SO	Security Officer

SOG	Special Operations Group (FBI)
SOP	Standard Operating Procedure
SRT	Search Response Team (DOE)
SRV	Supply Response Vehicle
SSA	Supervisory Special Agent (FBI)
SSC	Special Shaped Charge
STARC	State Area Commands
STCC	Standard Transportation Commodity Code Number
STU-III	Secure Telephone Unit (Mod 3)
TCP	Traffic Control Points
TCP	Telecommunication Priorities
TEC	Technical Escort Unit (US Army)
TEDE	Total Effective Dose Equivalent
TH	Temporary Housing
TL	Team Leader
TLD	Thermoluminescent Dosimeter
TLV	Threshold Limit Value
TPFDL	Time-Phased Force Deployment List
TRT	Technical Response Team, ES, IRD (FBI)
TSC	Technical Support Center
TSP	Telecommunications Service Priority
u	Windspeed
UHF	Ultra High Frequency (225-400 Mhz)
URS	UHF Ranging System
USC	United States Code
USDA	United States Department of Agriculture
USGS	U.S. Geological Survey
USHHS	United States Department of Health and Human Services
UV	Ultra Violet
VA	Department of Veteran Affairs
VHF	Very High Frequency (30-300 Mhz)
VMAT	Veterinary Medical Assistance Teams (NDMS)
VOR	VHF Omni Range
W & C	Warning and Communications System
WMD	Weapons of Mass Destruction
WMDCU	Weapons of Mass Destruction Countermeasures Unit (FBI)
WMDICP	Weapons of Mass Destruction Incident Contingency Plan (FBI)
WMDOU	Weapons of Mass Destruction Operations Unit (FBI)

SOME COMMON DEFINITIONS

Access Control Points (ACP): Manned posts established primarily by State or municipal police, augmented as necessary by the National Guard, around the perimeter of the plume exposure pathway EPZ on roads leading into it when it is evacuated or occupants are taking shelter for the purpose of controlling access into the area.

Advance Element of the Emergency Response Team (ERT-A) – The portion of the Emergency Response Team (ERT) which is the first group deployed to the field to respond to a disaster incident.

Catastrophic Disaster – An event that results in large numbers of deaths and/or injuries; causes extensive damage or destruction of facilities that provide and sustain human needs; produces and overwhelming demand on State and local response resources and mechanisms; causes a severe long-term effect on general economic activity; and severely affects State, local, and private sector capabilities to begin and sustain response activities.

Catastrophic Disaster Response Group (CDRG) – the national-level group of representatives from the Federal departments and agencies under the Plan. The CDRG serves as a centralized coordinating group which supports the one-scene Federal response and recovery efforts. Its members have access to the appropriate policymakers in their respective parent organizations to facilitate decisions on problems and policy issues.

Crisis Management Unit (CMU) – provides crisis management support to FBI field division in the form of JOC expertise and the management of crisis related information.

Crisis Negotiations Unit (CNU) – provides crisis negotiations support to FBI field divisions

Consequence Management (focus on effects): includes measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses and individuals affected by the consequences of terrorism.

Contamination: The unwanted deposition or presence of radioactive matter.

Crisis Management (focus on causes): includes measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism.

Crisis Response Team – responsible for supporting major cases in the field by providing full field command post facilities, including independent communications links for "secure" voice, text, and imagery capabilities through both terrestrial and satellite links.

Curie: The basic unit of radioactivity, equal of 3.7×10^{10} atomic disintegrations per second.

Decontamination: The removal of radioactive contaminants from personnel, instruments,

equipment, buildings and environment to reduce or eliminate potential hazards to personnel.

Defense Coordinating Officer (DCO) – supported and provided by the Department of Defense (DoD) to serve in the field as the point of contact to the Federal Coordinating Officer (FCO) and the ESFs regarding requests for military assistance. The DCO and staff coordinate support and provide liaisons to the ESFs.

Designated Area – the geographical area designated under a Presidential major disaster declaration which is eligible to receive disaster assistance in accordance with the provisions of Public Law (P.L.) 93-288, as amended.

Disaster Field Office (DFO) – *the office established in or near the designated area to support Federal and State response and recovery operations. The DFO houses the FCO and the Emergency Response Team (ERT), and where possible, the State Coordinating Officer (SCO) and support staff.*

Domestic Emergency Support Team – specialized interagency U.S. government team designed to expeditiously provide expert advice, guidance and support to the FBI on-scene commander.

Dose: The energy imparted to matter by ionizing radiation.

Dosimeter: A device which measures the radiation dose accumulated. This may include pocket or permanent record dosimeters, film badges and thermoluminescent badges.

Emergency – as defined at Title V of P.L. 93-288, Section 102(1), an emergency is any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety. Title V includes authority for the President to direct Federal agencies to provide emergency assistance to save lives and protect property and public health and safety for emergencies other than natural disasters. Under Title V, the President may direct the provision of emergency assistance either at the request of a Governor (Section 501(A)) or upon determination by the President that an emergency exists for which the primary responsibility for response rests with the United States (501(b)).

Emergency Operations Center (EOC) – a site from which civil government officials (municipal, county, State and Federal) exercise direction and control in an emergency or disaster.

Emergency Response Team (ERT) – an interagency team, consisting of a lead representative from each Federal department or agency assigned primary responsibility for an ESF and key members of the FCO's staff, formed to assist the FCO in carrying out his/her coordination responsibilities. The ERT provides a forum for coordinating the overall Federal response, reporting on the conduct of specific operations, exchanging information, and resolving issues related to ESF and other response requirements. ERT members respond to and

meet as requested by the FCO. The ERT may be expanded by the FCO to include designated representatives of other Federal departments and agencies as needed.

Emergency Support Function (ESF) – a functional area of response activity established to facilitate the delivery of Federal assistance required during the immediate response phase of a disaster to save lives, protect property and public health, and to maintain public safety. ESFs represent those types of Federal assistance the State will most likely need because of overwhelming impact of a catastrophic or significant disaster on its own resources and response capabilities, or because of the specialized or unique nature of the assistance required. ESF missions are designated to supplement State and local response efforts.

Emergency Support Team (EST) – an interagency group operating from the Federal Emergency Management Agency (FEMA) headquarters. The EST oversees the national-level response support effort and coordinates activities with the ESF primary and support agencies in supporting Federal response requirements in the field.

Evidence Response Unit – coordinates and manages the FBI's Evidence Response Team Program, which is designed to train and equip field personnel to conduct crime scene searches and collect evidence.

Federal Coordinating Officer (FCO) – the senior Federal official appointed in accordance with the provision of P.L. 93-288, as amended, to coordinate the overall response and recovery activities. The FCO represents the President as provide by Section 303 of P.L. 93-288, as amended, for the purpose of coordinating the administration of Federal relief activities in the designated area. Additionally, the FCO is delegated responsibilities and performs those for the FEMA Director as outlined in Executive Order 12148 and those responsibilities delegated to the FEMA Regional Director in Title 44 Code of Federal Regulations, Part 205.

Hazardous Materials Response Unit (HMRU) – are available to assist the field in advisory and liaison capacity with on-scene military and civilian personnel. HMRU is equipped to direct the proper evidence handling procedures in a contaminated environment and to provide expert technical assistance to FBI personnel conducting the investigation.

Hostage Response Unit (HRU) – the FBI's primary tactical response element in a significant WMD incident.

Irradiation – Exposure to any source of radiation.

Joint Information Center (JIC) – the primary field location for the coordination of Federal and State media relations, located in or near the DFO.

Limited Consequences – within State and local capabilities.

Major Consequences – exceed State and local capabilities, requiring a Federal response.

Major Disaster – as defined under P.L. 93-288, any natural catastrophe, (including any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

Mass Care Centers: Fixed facilities suitable for providing emergency lodging and all essential social services and capable of providing for victims of disaster left temporarily homeless.

Materials and Devices Unit (MADU) – Personnel assigned to the Materials and Devices Unit are experts in a wide variety of explosive devices.

National Center for the Analysis of Violent Crimes (NCAVC) – personnel assigned to the NCAVC are equipped to provide behavioral and linguistic assessments during FBI's internal WMD credibility assessment.

National Emergency Coordination Center (NECC) – the FEMA facility which provides notification to Headquarters and Regional responders of implementation of the Plan.

Operational Facilities – all of the facilities required to support response and recovery operations, such as the DFO, points or arrival, points of departure, mobilization areas and staging areas.

Plume Exposure Pathway Emergency Planning Zone: The area which potentially is subject to radiation exposure as a result of an incident involving radioactive material emanating from a radiation device.

Potassium Iodide: A thyroid-blocking agent that prevents the accumulation of radioiodine by blocking its absorption by the thyroid gland through the presence of stable (non-radioactive) iodine.

Primary Agency – the Federal department or agency assigned primary responsibility to manage and coordinate a specific ESF. Primary agencies are designated on the basis of their having the most authorities, resources, capabilities, or expertise relative to accomplishment of the specific ESF support. Primary agencies are responsible for overall planning and coordination of the delivery of ESF-related Federal assistance to their State counterparts, in conjunction with this support agencies.

Protective Action: An action taken to avoid or reduce a projected dose of radiation.

Public Information Statements: Public announcements made by PEMA or county official spokesperson(s) via newspapers, radio or television to explain government actions being taken.

Rad: A basic unit of absorbed dose of ionizing radiation. A measure (applicable to any form or ionizing radiation) of actual energy absorption.

Radiation: The propagation of energy through space or matter.

Radiological Response Team: A cadre of trained personnel from local emergency service organizations that serve as advisors to initial responders to radiological emergencies.

Rapid Start Team (RST) – team comprised of information management personnel who are prepared to deploy on short notice to the scene of FBI major cases.

Rem: A unit of absorbed dose of ionizing radiation in biological matter; specifically the absorbed dose in Rads multiplied by a constant which takes into account the biological effectiveness of a particular radiation.

Region III: Refers to the Federal Emergency Management Agency's jurisdictional sub-area of the U.S. that includes the states of Delaware, Maryland, Pennsylvania, Virginia, West Virginia and the District of Columbia.

Recovery – activities traditionally associated with providing Federal supplemental disaster recovery assistance under a Presidential major disaster declaration. These activities usually begin within days after the event and continue after the response activities cease. Recovery includes individual and public assistance programs which provide temporary housing assistance, grants and loans to eligible individuals and government entities to recovery from the effects of a disaster.

Regional Operations Center (ROC) – the temporary operations facility for the coordination of Federal response and recovery activities, located at the FEMA Regional Office (or at the Federal Regional Center) and led by the FEMA Regional Director or Deputy Director until the DFO becomes operational. Coordination of operations shifts to the State EOC upon arrival of the ERT-A at the location. From that time forward, the ROC performs a support role for Federal staff at the disaster scene.

Response – activities to address the immediate and short-term effects of an emergency or disaster. Response includes immediate actions to save lives, protect property, and meet basic human needs. Based on the requirements of the situation, response assistance will be provided to an affected State under the Federal Response Plan using a partial activation of selected ESFs or the full activation of all ESFs to meet the needs of the situation.

Roentgen (R): A unit of exposure dose of ionizing radiation. A measure of the ability of gamma

or x-rays to produce ionizations in air.

Significant Threat – the confirmed presence of an explosive device or WMD capable of causing a significant destructive event, prior to actual injury or property loss. (FBI)

Standard Operating Procedure (SOP): A minimum set of action steps that must be taken to carry out a functional activity or task during a radiological emergency.

State – for the purpose of this Plan and as defined under P.L. 93-299, any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, or the Republic of the Marshall Islands.

State Coordinating Officer (SCO) – the representative of the Governor who coordinates State, Commonwealth, or Territorial response and recovery activities with those of the Federal Government.

Support Agency – a Federal department or agency designated to assist a specific primary agency with available resources, capabilities, or expertise in support of ESF response operations, under the coordination of the primary agency.

Technical Operations – include operations to identify, assess, dismantle, transfer, dispose, and decontaminate personnel and property exposed to explosive ordnance or NBC/WMD material.

Technological Hazard – includes a range of hazards emanating from the manufacture, transportation, and use of such substances as radioactive materials, chemicals, explosives, flammable, agricultural pesticides, herbicides and disease agents: oil spills on land, coastal waters or inland water systems; and debris from space.

Terrorist Incident – a violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any State, to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. (FBI)

Traffic Control Points (TCP): Manned posts established at critical road junctions for the purpose of controlling or limiting traffic.

Weapon of Mass Destruction (WMD) – (a) any destructive device as defined in section 921 of this title (which reads) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one quarter ounce, mine or device similar to the above; (b) poison gas; (c) any weapon involving a disease organism; or (d) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life. (18

U.S.C., Section 2332a)

Weapons of Mass Destruction Operations Unit (WMDOU)- FBI – Specialized mission of this unit is to combat the use or threatened use of WMD as a means of terrorism directed against the U.S., its citizens, or its interests.

Weapons of Mass Destruction Countermeasures Unit (WMDCU) – mission of this unit is to ensure the FBI, State, and local responders are prepared to handle incidents involving the use or threat to use WMD in a terrorist act against the U.S., its citizens, or its interests.

ANNEX L

Glossary:

Terrorist Incident – The FBI defines a terrorist incident as a violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any State, to intimidate or coerce a government, the civilian population, or any segment thereof in furtherance of political or social objective.

Crisis Management – The FBI defines crisis management as measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat or act of terrorism

Consequence Management – FEMA defines consequence management to protect public health and safety, restore essential government services, and provide relief to governments, businesses, and individuals affected by the consequences of terrorism.

Credible Threat – The FBI conducts and interagency threat assessment that indicates that the threat is credible and confirms the involvement of a WMD in the developing terrorist incident.

Weapon of Mass Destruction (WMD): Title 18, U.S.C. 2332a, defines a weapon of mass destruction as (1) any destructive device as defined in section 921 of this title, [which reads] any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one-quarter once, mine or device similar to the above; (2) poison gas; (3) any weapon involving a disease organism; or (4) ***any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.***

Incident Command System: a management system, under the control of a single individual (the Incident Commander) that uses commonly accepted business management techniques to control and manage personnel, equipment, and other resources for the purpose of mitigating an emergency situation.

Unified Command: the structure employed in the Incident Command System to manage emergencies involving or impacting on multiple geographic, functional, or legislatively-mandated jurisdictions. In Unified Command, all involved agencies participate actively in determining the strategic (and in some cases tactical) goals and objectives, although there remains only one overall Incident Commander.

Strategic Unified Command: The command structure involved with obtaining and assigning resources and with the overall management of the response. In particular, this command oversees the coordination between the various agencies and assures that the overall response is unified and that internal conflicts do not develop. The Joint Operations Center is an example of this command. It is generally located very near the scene of the action, usually in a trailer or a building which can be quickly obtained and equipped. Communication lines and radio capabilities are essential to this command structure, and much of its efforts are directed toward

dealing with people external to the immediate response effort.

Tactical Unified Command: The command structure at the scene of the action. This command structure deals with the immediate aspects of site entry and response efforts, including such things as levels of personal protection, addressing immediate threats to the responders and the public, site security and site access, etc. Tactical command would be located in sight of the scene of the action, and may be run from a fire truck or some other vehicle with radio communication. The focus here is on immediate site activities rather than overall coordination of multiple agencies.

ANNEX M

County To Train In Defense Against 'Weapons Of Mass Destruction'

Sunday, August 15, 1999

By LES STEWART

Daily News Staff Writer

A terrorist leaves a series of bombs in the Lebanon Valley Mall and walks away, leaving them to detonate and kill and injure a crowd of helpless shoppers. Panic sets in as the wounded struggle to cope with the carnage around them.

Sounds like the premise for a Bruce Willis action film, doesn't it?

Far from it. It's a scenario that may sound far-fetched, but emergency officials say it's possible.

Most Americans, they point out, never thought a terrorist attack on U.S. soil could happen until the bombings of the World Trade Center in New York City and the Alfred P. Murrah Federal Building in Oklahoma City proved them wrong.

"That was a wake up call for a lot of America," said Marko Bourne, press secretary of the Pennsylvania Emergency Management Agency.

Since those acts of terrorism, emergency officials statewide have taken on the added task of training for a terrorist attack. Now, they are taking steps to ensure it doesn't happen in the Lebanon Valley.

Late next month, personnel from Lebanon County's Emergency Management Agency will join some 250 to 300 people from more than 30 federal, state and local agencies in an ominous sounding exercise called "Weapons of Mass Destruction."

To put it simply, it'll test how the various agencies would respond to a an act of terrorism involving nuclear, chemical or biological weapons.

Part of the two-day event, set for Sept. 29 and 30 at Fort Indiantown Gap Military Reservation, will be a table-top exercise, such as decontaminating "victims" in the incident. The rest of it will be an actual drill, Bourne said.

"We want to test our own capabilities," he explained.

Because PEMA coordinates other types of emergency drills for local emergency agencies, it was only natural that the state agency would also run this type of exercise, Bourne said.

In fact, PEMA has helped conduct similar exercises in other parts of the state, such as Philadelphia and Pittsburgh, he said. Lebanon's, however, is a bit unusual.

"This one is unique because of the size and other (agencies taking part)," Bourne said.

"The whole purpose of this is to see what kinds of problems we run into," said Clyde Miller, Lebanon County EMA director.

In the past, local emergency management agencies were kept busy with storms or cleaning up spilled diesel fuel after a traffic accident. But training for something like this is completely different.

"The whole ball game has changed," he said. "This is indeed the granddaddy of them all."

A terrorist act occurring in Lebanon County wouldn't be beyond the realm of possibilities, Miller said. As such, local officials want to be ready. After all, he pointed out, anyone can now get information about making bombs just by looking for it on the Internet.

Besides the county's Hazardous Materials crew, representatives from the FBI, U.S. Department of Energy, U.S. Environmental Protection Agency and the Federal Emergency Management Agency will be training alongside staff from the Fort Indiantown Gap Fire Co., Good Samaritan Hospital, the county coroner's office, First Aid and Safety Patrol and Good Samaritan ambulance services and fire departments from Richland and Annville.

"If anything ever happens, it will be the local response services that make or break it," Miller said.

Federal authorities are developing response teams throughout the United States to help local agencies handle these types of events, Miller said.

The exercise is designed to better coordinate various government agencies responding to a terrorist act, Bourne and Miller agreed.

Fort Indiantown Gap, with its insulated and somewhat isolated location, was selected as the site for the exercise because it provides the chance of conducting the training with a minimum disruption to the community, Miller said.

Another aspect of the exercise is maintaining the safety of local agencies responding to a terrorist act, according to Miller. At the county level, hazardous materials crews are better prepared for these incidents because of the equipment and training. Local fire and police departments, however, also need training, he added.

A number of task forces have been formed throughout Pennsylvania, Miller said. Lebanon is teamed up with Lancaster, Luzerne, Schuylkill, Berks and Columbia counties. The counties will share resources. If Luzerne would need assistance, for example, Lebanon could send it, the local EMA director said.

During the past two and a half years, the county's EMA staff has been quietly receiving training from federal and state authorities on how to respond to terrorist activities involving chemical, biological or nuclear weapons, Miller said. Other counties are doing the same, he added.

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ANNEX N

Participating Organizations:

East Hanover Township Supervisors
East Hanover Township EMA
Ft. Indiantown Gap Police Department
Ft. Indiantown Gap Fire Department
City of Reading Explosive Ordnance Disposal (EOD)
City of Allentown EOD
Lebanon County EMA
Lebanon County Hazardous Material Team
Lebanon County Fire Police
Lancaster County EMA
Schuylkill County EMA
Good Samaritan Hospital
Good Samaritan Hospital EMS
Pennsylvania Emergency Management Agency
Pennsylvania State Police (Headquarters, Bureau of Emergency & Special Operations, Reading, Jonestown, Hamburg, Schuylkill Haven, Frackville Barracks)
Pennsylvania Department of Environmental Protection, Emergency Response Team
Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
Pennsylvania Department of Military and Veteran Affairs
- Civil Air Patrol (CAP)
- PA National Guard's Rapid Assessment, Initial Detection (RAID) Element
- Military Support to Civil Authorities (MSCA)

Pennsylvania Department of Corrections, SCI Frackville
Pennsylvania Department of Transportation
Pennsylvania Department of Health, Emergency Medical Services
PA TF-1 Pennsylvania Urban Search & Rescue Task Force
Federal Bureau of Investigation, Philadelphia
Federal Bureau of Investigation, Harrisburg
US Dept. of Treasury, Bureau of Alcohol, Tobacco, and Firearms, Philadelphia
Federal Emergency Management Agency, Region III, Philadelphia
US Department of Defense (DOD)
- 756th EOD, Ft. Indiantown Gap
- NAVSCOLEOD-Indianhead, MD
- USAF HAMMER ACE, Scott AFB

US Department of Energy – Emergency Response Program
- Radiological Assistance Program (RAP), Region 1, Brookhaven National Labs
- Radiological Assistance Program (RAP), Region 2, Oakridge National Labs
- Defense Program-23, Germantown, Maryland
- Headquarters, Washington, DC

US Environmental Protection Agency (EPA),
- Region III, Philadelphia
- Region III Site Assessment & Technical Assistance Team(SATA)Wheeling,WV

US Dept. of Labor, Occupational Safety & Health Administration - Allentown Office
Salvation Army, Eastern Region - Harrisburg and Myerstown Chapters

ANNEX O

LIST OF PLANS AND PROCEDURES TO PROVIDE APPROPRIATE EVALUATION CRITERIA FOR THE VIGILANT LION EXERCISE SEPTEMBER 29-30, 1999

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FDA 83-8211 *Preparedness and Response in Radiation Accidents*, August 1983.

DOT P 5800.5, *North American Emergency Response Guidebook*, 1996.

NIOSH *Pocket Guide to Chemical Hazards* (Revised 97-140)

NIOSH Guide to the Selection and Use of Particulate Respirators (DHHS [NIOSH] publication 96-101)

USHHS *Radiological Health Handbook.*

NRC *Response Technical Manual* (RTM-96), March 1996.

NRC *Response Coordination Manual* (RCM-96), September 1996.

OSHA 17 CFR 1910.120 Hazardous Waste Operations and Emergency Response

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NFPA 472: *Standard for Professional Competence of Responders to Hazardous Materials Incidents, April 1997.*

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