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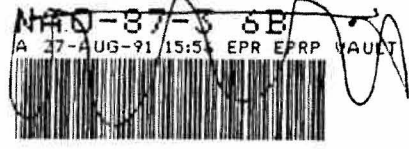
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MIGHTY DERRINGER REPORT

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EXERCISE MIGHTY DERRINGER  
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Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

memorandum

TO: Distribution

DATE: 4 February 1987

FROM: Carl Henry *Carl Henry*

MAIL STOP/TELEPHONE: K497/FTS 843-8716

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SUBJECT: COMMENTS ON MIGHTY DERRINGER

Attached are copies of comments concerning MIGHTY DERRINGER for your retention. If I find there are some additional comments I will also distribute them.

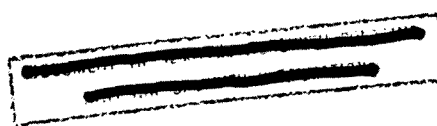
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## MIGHTY DERRINGER REPORT - RAY D. DUNCAN

This report will include a summary of observations, lessons learned, and recommendations developed during the conduct of the MIGHTY DERRINGER exercise. It is expected that the planners and controllers will provide a more detailed account and analysis of individual transactions which occurred during the actual conduct of the exercise.

The overall exercise was well designed and presented a credible scenario. The design, which required two separate deployments, placed a great deal of stress on NEST manpower and equipment resources. Although the scenario was challenging, the problems encountered were solvable and, in most cases, presented opportunities for more than one solution. Ample opportunities were also provided for free play, which resulted in a more credible and realistic exercise.

The deployment to a national OCONUS site and the subsequent problems associated with phasing NEST members into the host country presented some unusual challenges. It is not unreasonable to expect that similar issues could arise if the NEST team were actually deployed to an OCONUS location to participate in a covert operation. However, there would be so many variables involved in such a deployment that it would be difficult to develop a meaningful plan in advance for phasing the various elements in and out of the host country. Nevertheless, NEST leadership should be prepared to deal with such a situation during an actual deployment.

The transition from an OCONUS operation to a CONUS deployment was a bit disjointed in that the planners had apparently not contemplated the need for an advance party to be dispatched to the CONUS location. Although a decision was finally reached to deploy an advance party, they arrived too late to accomplish many of the tasks which would normally have been completed prior to arrival of the main body. The player group did a remarkable job in adjusting to these unusual circumstances with only a minimal amount of delay and confusion. Although this incident was a bit frustrating to the players at times, it did serve to illustrate the importance of deploying an advance party in sufficient numbers to handle logistical arrangements, evaluate the credibility of the incident, and establish important linkages with the FBI and other key participants. Clearly, there is just no substitute for an on-scene presence.

The logistics and administration groups at both locations did an outstanding job of establishing the CP and the TOC in a very short period of time. Supplies, materials, and support services were readily available. I am not aware of any delays or significant problems resulting from a lack of timely support.

The actors at the OCONUS site deserve special recognition for their contribution to the conduct of the exercise. They carried out their scripted roles, as well as free play activities, in a totally convincing and realistic manner. The utilization of such a staff adds a broader dimension to the exercise and should be seriously considered for future exercises as appropriate. The decision to utilize members of the NV administrative staff as planners and controllers was outstanding. They not only made a substantial contribution to the conduct of the exercise, but they also gained valuable experience which further expands the manpower resources available to respond to a NEST incident.

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The players were confronted with an extraordinary number of difficult challenges over an extended period of time because of the dual deployment in two separate geographic locations. Based upon an opportunity to view the planned actions, as well as the field execution, I believe the administrative, logistical, and technical decisions and solutions were highly appropriate. Although alternatives were carefully considered, as well as their potential consequences, final decisions were timely and generally accomplished the desired objectives.

Command and control was much improved and properly reflected many of the lessons learned from prior exercises. The new organizational structure proved to be particularly effective and seemed to be well understood by all participants. Relationships between the DOE On-Scene Commander (OSC), the State Department, the CIA representatives, and the DOD Team Leader were established promptly and effectively in the OCONUS operation. An even closer and more effective working relationship might have developed if the Team Leaders had chosen to operate from a joint control point. I expect there is no single prescription which could be applied in advance as to the best location for the key members of the command structure. Colocation of those in leadership positions tends to separate the Commander from his own key staff and makes internal communication more difficult. However, it does help to assure that those in key leadership positions are operating from the same base of information. This appeared to be even less of a problem in the CONUS operation due to the close proximity of the FBI/SAC and the DOE/OSC.

The absence of a mutually acceptable formal joint policy between DOD and DOE related to control of the working point continues to present problems in the field environment. There seems to be agreement that the FBI or the DOD is in command during the assault phase and until such time as the working point is considered to be secure. Close coordination with the DOE/OSC is critical to assure that the assault force knows what to look for and exercises some constraints with live fire around the suspected device. The problem centers around command and control once the area has been secured and is safe for the scientific team to enter. There does seem to be mutual agreement that only one individual can be in command of the area. I am of the opinion that individual should be the DOE On-Scene Commander through his working point coordinator. However, it makes little or no sense for two highly technical organizations to potentially be making separate complex technical recommendations to an FBI/SAC or State Department official. In the case of the OCONUS, as well as the CONUS operations, this was resolved effectively by the senior officials on scene, which demonstrates that reasonable people can generally arrive at reasonable solutions, even in a crisis situation. However, one cannot always depend on a negotiated solution during an actual deployment. Therefore, a formal joint policy should be developed between DOE, FBI, DOD, and the State Department as to which agency will be in command of the working point during each phase of the operation and the methods for a transition from the assault phase to the disablement phase.

Due to the nature of this specific exercise involving two separate deployments, an On-Scene Commander was appointed for each location and the Manager, NV,

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served as the senior DOE official, with overall responsibility for each location. Even though this type of organizational structure was not contemplated in the NEST procedures, there may be some merit to utilizing a similar command structure on a selective basis for future deployments. If an incident occurs which could potentially involve a number of high-level political participants or one involving a foreign government, it might be useful to appoint a senior DOE official to deal with such entities, including the news media. This would allow the On-Scene Commander more time to deal with the technical problems.

The device assessment capability at the CONUS deployment area was very limited. This apparently resulted from an artificiality of the exercise since there was also a very limited diagnostic capability available at this location. Device assessment could, indeed, be performed from a remote or even a home base location if communications serving both locations are nearly perfect. However, it is doubtful that communications facilities at any potential deployment location would be such that fully encrypted voice and data channels would be available to perform a full range of device diagnostics from a remote area. Therefore, I am of the opinion that any credible deployment should include a fully self-contained device assessment capability. If communications are available, the home base teams can then be used for verification and support.

The dual deployment clearly demonstrated the need for two complete sets of diagnostic equipment. Even though multiple deployments may never materialize in a real-world crisis, the exercise served to emphasize how impotent the NEST team would be without a full range of diagnostic equipment. Moreover, if the LANL equipment were involved in a truck or airplane accident enroute during a NEST mobilization, the team would be severely handicapped in dealing with an Improvised Nuclear Device (IND). It might be possible to assemble bits and pieces of a diagnostic system if the present equipment was involved in a catastrophic accident. However, the mobilization time would likely be unacceptable. It is strongly recommended that a duplicate set of diagnostics equipment be acquired and stored in a separate location for emergency backup.

Although the possibility of a dual deployment seems remote, a management decision should be made as to whether other NEST assets should be expanded for such an eventuality. Some of the less obvious assets, such as news media kits, medical supplies, etc., were only available in one location during the conduct of MIGHTY DERRINGER.

It also seems clear that some additional educational programs would be useful for DOE Headquarters, as well as other federal agencies and committees to acquaint them with the numbers and types of people that would be required to respond to a real-world incident. Due to the relatively high turnover rate among the JSOC and Delta Force participants, as well as the FBI/HRT, a continuing educational program would also be appropriate to assure they understand the potential consequences of moving or unintentionally shooting an IND.

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A tutorial type of seminar or workshop might be an appropriate forum for such training, which could also include a refresher course on device diagnostics and assessment.

Communications at the OCONUS location were excellent. Internal, as well as external, lines and equipment worked effectively and minor problems were resolved promptly. The fact that this was a DOE installation (NRDS) may have been a factor. However, there were a number of noteworthy improvements from prior deployments. Internal communications at the CONUS site were also effective. However, secure voice and data communications were very limited and created some serious problems in obtaining or exchanging important information with Headquarters, the OCONUS location, and home base support teams. Although the EG&G communications equipment worked well, operations were seriously constrained by the quality and quantity of external communications lines. Since it is reasonable to expect that similar constraints would also exist during almost any actual field deployment, it is essential that DOE proceed as soon as possible with the acquisition of suitable satellite communications systems which would reduce reliance on host facilities.

Once again, this exercise demonstrated that an effective intelligence analysis and assessment capability is one of the most critical elements of a NEST deployment. I believe the intelligence and assessment group functioned as well or better than they have in any exercise to date. DOE should continue to emphasize the importance of receiving timely intelligence information from all potential sources within other governmental agencies.

Information management and control continues to be a major unresolved problem. The display system in the new NV Headquarters EOC seemed to work very well. Information and data appeared to be timely and accurate, which assured that all individuals in the command and control structure were working from the same base of information. Unfortunately, this was not the case in the CP and the TOC following deployment to the field. The right decisions seem to have been made on a timely basis, in spite of the fact that it was extremely difficult to assure that key decision makers in the command structure were fully informed at all times. The lack of a well-disciplined information control system tends to foster a higher degree of centralized decision making which places a greater burden on the On-Scene Commander. Regular meetings between the OSC and key staff members were useful for the exchange of information and plans. However, such information was often obsolete shortly after the meetings have been concluded. The same situation existed, to some extent, in the OCONUS location between the OSC, JSOC, CIA, and the State Department. Although there seemed to be no reluctance to share information, it was difficult to assure that all individuals were working from the same information base. In some cases, it was noted that two different organizations were often attempting to resolve the same problem at the same time with different results. It is recommended that a study be initiated to determine whether or not it is feasible to design a system to resolve this problem in a field environment. Such a system should, as a minimum, identify the date and time the information was received or generated; the source and whether or not the information could be validated or verified; who is to take action, if any; distribution; and a means of

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following up on the suspense actions as appropriate. Such a system must be designed in such a way that it will not inhibit the free flow of information between the staff and key decision makers.

Shortly following the notional detonation of the IND at the CONUS location, plans were quickly made to reduce personnel levels by returning the search teams to their home base, even though there was an immediate need for a number of trained radiation monitors. If such an incident were to occur, experienced radiation monitors would be mobilized from several locations throughout the DOE and EPA network, as well as state participants. However, monitors would likely be in short supply during the first few critical hours or days after the incident. It is my understanding that NEST search team members could be qualified to do radiation monitoring with only a minimum of additional training, which could bridge an important resource gap during the first few hours after the incident. It is recommended that a review be initiated to determine how much additional training would be required and how it could be incorporated into current training schedules.

Despite some initial concerns as to who would serve as the on-site senior DOE official after the transition from FBI to FEMA, relationships with FEMA officials and the OSC were established quickly and seemed to be effective in dealing with the immediate problems. I believe the Headquarters decision to have the NEST OSC continue to serve as the senior DOE official was proper and minimized many of the usual problems and concerns during the initial transition. In a real-world incident, radiation monitoring and cleanup would likely continue over an extended period of time. Therefore, once the situation has stabilized after the first few days, it may be appropriate to transfer command to a DOE official designated to assist or advise in cleanup and monitoring activities.

The absence of contentious issues of any magnitude may have been attributable to the fact that the individuals representing the state and local governments were not overly aggressive in their demands for information, data, and support services.

The importance of dispatching one or more knowledgeable, senior-level individuals to DOE Headquarters during an actual deployment cannot be overemphasized. The need for such an individual to explain and interpret technical actions being taken in the field, as well as to seek out timely decisions in support of the OSC is so critical that it should be reflected in the NEST organizational chart with key individuals identified in advance to serve in that role.

Although not directly related to the conduct of the exercise, it was noted that a substantial number of the charter members of the NEST community are approaching retirement age. Since many of these individuals occupy key positions, their departure from the DOE family for whatever reason could create some serious gaps in the NEST command and control structure, as well as the technical resources to deal with INDs. It might be worthwhile to conduct an inventory of highly specialized critical skill categories and determine what, if any, actions should be taken to develop or train additional personnel

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capable of filling those key roles. Those individuals should also be appointed to serve in those roles during the next major exercise while the more senior members are still available for coaching and counseling.

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RECOMMENDATIONS

1. Except under very unusual circumstances, an advance party should be deployed well ahead of the main body and should consist of a logistical support staff, communications, a scientific advisor, and at least one senior DOE official with decision-making authority.
2. Utilize actors in future exercises, as appropriate, to broaden the scope of challenges presented to the players and bring a greater degree of realism to the play. Obviously, great care must be exercised in the selection of the participants and the dimension of their roles.
3. Develop a joint policy between DOE, FBI, DOD, and the State Department which clearly delineates command authority at the working point during each phase of the operation. There appears to be some sensitivity to any implication that military personnel might be placed under the command of a civilian. However, this should be manageable as long as the civilian OSC observes the EOD command structure in the field.
4. Consider the feasibility of appointing an on-site senior DOE official to deal with external political- or news media-oriented issues in order to allow the On-Scene Commander more time to manage the technical response.
5. Further evaluate the strategies involving the utilization and deployment of the NEST device assessment assets.
6. Authorize LANL to acquire a duplicate set of NEST diagnostic equipment. Even though it could also be located at Los Alamos to facilitate maintenance, it should be stored in a separate building and should never be transported on the same vehicle. In the event of a facility fire or transportation accident, the NEST team would have reasonable assurance that a full complement of diagnostics equipment would be available.
7. Consider the feasibility of expanding other NEST assets to respond to a dual deployment, such as news media kits, medical supplies, etc.
8. Proceed with the acquisition of suitable satellite communications systems to reduce the need to rely on host communications facilities.
9. Initiate a study to determine the feasibility of designing an information management system in a field environment with linkages between the CP, the JOC, the FBI, and other potential lead agencies.
10. Investigate the feasibility of training search teams to perform radiation monitoring on an emergency basis until longer-term replacements could be mobilized.
11. Designate key individuals to serve in a Washington Headquarters liaison function and modify the NEST organization chart to reflect this position.

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- ( 12. Conduct an inventory of key staff members in the NEST community to assure that understudies have been selected and are being trained as appropriate. )

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