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Los Alamos

Los Alamos National Laboratory  
Los Alamos, New Mexico 87545

memorandum

TO: Jesse Aragon, HSE Division Leader

DATE: January 7, 1987

THRU: Allen Valentine, Radiation Protection  
Group Leader *Arull*

MAIL STOP/TELEPHONE: K843/7-8080

FROM: Richard Smale, Assoc. Group Leader *Richard Smale*

SYMBOL: HSE-1-RS-3

SUBJECT: TRIP REPORT, DECEMBER 7 TO 13, CAMP ATTERBURY, (INDIANAPOLIS), INDIANA

This was the definitive trip for the MIGHTY DERRINGER exercise. My role was as a radiological effects and consequence planner and controller for the domestic phase of the exercise.

The exercise scenario was as follows:

Terrorists had stolen two nuclear devices from a developing nuclear capable country; they had hidden one device in a foreign country and one device in the Continental United States (CONUS). By a series of events, the device in CONUS was traced to Indianapolis and, in cooperation with the FBI and law enforcement agencies, it was searched for by the Nuclear Emergency Search Team, (NEST) and located in a house in downtown Indianapolis, along with the terrorists and hostages. The FBI was the overall agency in charge of the negotiations with the terrorists and the subsequent assault to gain control of the device. This phase was successfully completed and, when control of the device was obtained, the NEST scientists could have disabled it.

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The overall consequence management was done by the Federal Emergency Management Agency (FEMA), the technical and data gathering function were done by DOE under a Federal Radiological Monitoring and Assessment Center (FRMAC) from the National Guard Camp at Fort Atterbury. My role was to observe the Federal interfaces and provide the the radiological and fallout data necessary to give the players realistic problems. This was done by using a combination of LLNL Atmospheric Release Advisory Center (ARAC) plots and a real nuclear event of the same yield (JOHNNY BOY). Pre-conceived wind and weather forecasts were used during the first few days so the players could plan for either a dispersal or a "worst case" type conclusion. When the actual consequence occurred, the downwind fallout was fed to the players as a series of situation reports, aerial survey measurements, ground readings, dairy milk analysis, water sample, etc., etc. In total, more than 50 separate sets of data and injects were used during the 4 days of the exercise.

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The consequence phase was only from 0715 Thursday 11 Dec to 1200 Friday 12 Dec, but it was more than successful in providing a meaningful set of problems for the players. They were able to solve all of the organizational difficulties inherent in a multi-agency large scale crisis.

I have still all of the data sheets, weather reports, fallout plots, radiological injects and technical information. Anyone who is interested is welcome to see them.

RFS:ac

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