



Technology at LANL EOC

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The Cerro Grande Fire in May of 2000 provided the EOC staff with challenges that could be improved using current technology. The EOC that existed at that time was not sufficiently robust to operate in a stand alone fashion to feed, house, and protect personnel who worked there. Information and the flow of accurate information was not always available and is required to operate and to make critical decisions. The EOC was replaced with a state of the art EOC which incorporated the lessons learned from the Cerro Grande and Dome fires, daily operating experiences, audits and assessments and hazard surveys and assessments. Some of the technology used in the new EOC is included in this talk.



Technology at the LANL EOC

Electronic Information

- a) Data Mirror: A stand alone bank of servers located in the EOC that makes a copy of the information applicable to the EOC operation from the LANL databases on a routine basis.
- b) Independent Local Area Network (Vocera) (not approved for phones)
- c) Local video display on selected computers of all large video wall images including TV, plume projections, etc.
- d) Narrow band trunked radios, vehicle tracking of emergency vehicles.
- e) Computer Aided Dispatch of Los Alamos County emergency responders.



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Display of Information

- a) Christie Display Wall (9' X30') can display still video or live video images from any electronic output. (not connected to ECN)
- b) Mobile Video Imagery - portable camera system with IR capability that can be mounted on ground or aircraft platforms.
- c) Electronic Emergency Information Signs
- d) Remotely Controlled Surveillance Cameras



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Consequence Assessment

- a) Forest Fire Behavior Modeling (Farsight, Behave)
- b) Chemicals - EPI, Midas, Midas-AT, ALOHA, NARAC
- c) Radiological - HOTSPOT, Midas, Midas-AT, NARAC
- d) Biological - Midas-AT
- e) Additional - HPAC, CAP 88 PC, ERAD, RESRAD, RSAC
- f) LANL has 5 active local MET towers



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Communications

- a) Narrow Band Trunked Radio System and VHF backup
- b) Communications Van with freq. to freq. patching capability
- c) Inmarsat phone/data
- d) Iridium Satellite phone
- e) Zoned PA paging system
- f) Vocera communication system



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Survivability

- a) PC 2++ rated construction of EOC
- b) Backup EOC @ TA 49
- c) Backup/Backup EOC Whiterock Training Center
- d) Mobile Command Vehicle and Mobile Communications Van



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Miscellaneous

- a) Accountability Monitors
- b) Lighting for flags (set and forget)
- c) Remote Master Clocks
- d) Flat Panel Displays for Electronic Status Boards
- e) Dual Fuel Fired Boilers
- f) Sanitary Holding Tanks
- g) Fire Suppression Water Tower/ Potable Water Tank

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Summary

The design of the LANL EOC had one additional feature. Changeability. To name a few of the features: The conduits are oversized, raised computer floor space is almost empty, and the offices are oversized to accommodate an anticipated large numbers of personnel from all agencies who may be involved in an emergency. With the rapid expansion in technology, who knows what will be needed, required, or nice to have, in 5, 10, 15 or more years. As you work on your new building don't forget your vision of the future.



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QUESTIONS?

IF YOU WOULD LIKE ADDITIONAL INFORMATION

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