

AN EMERGENCY OPERATIONS CENTER FIELD STUDY – COMMONWEALTH OF VIRGINIA

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PRIMARY FACILITY CHARACTERISTICS:

(1) The Virginia Emergency Operations Center was constructed during the period 1954 – 1956, to meet Cold War period Nuclear Shelter Guidelines, to shelter the Governor in the event of attack. The facility is located behind the State Police headquarters and beneath the State Police Academy in a compound off a major thoroughfare. The facility was built beneath ground with 2,200 square feet of useable space and constructed of 15-inch reinforced concrete to provide a protection factor of 1000 against radioactive fallout (Demm 2002).

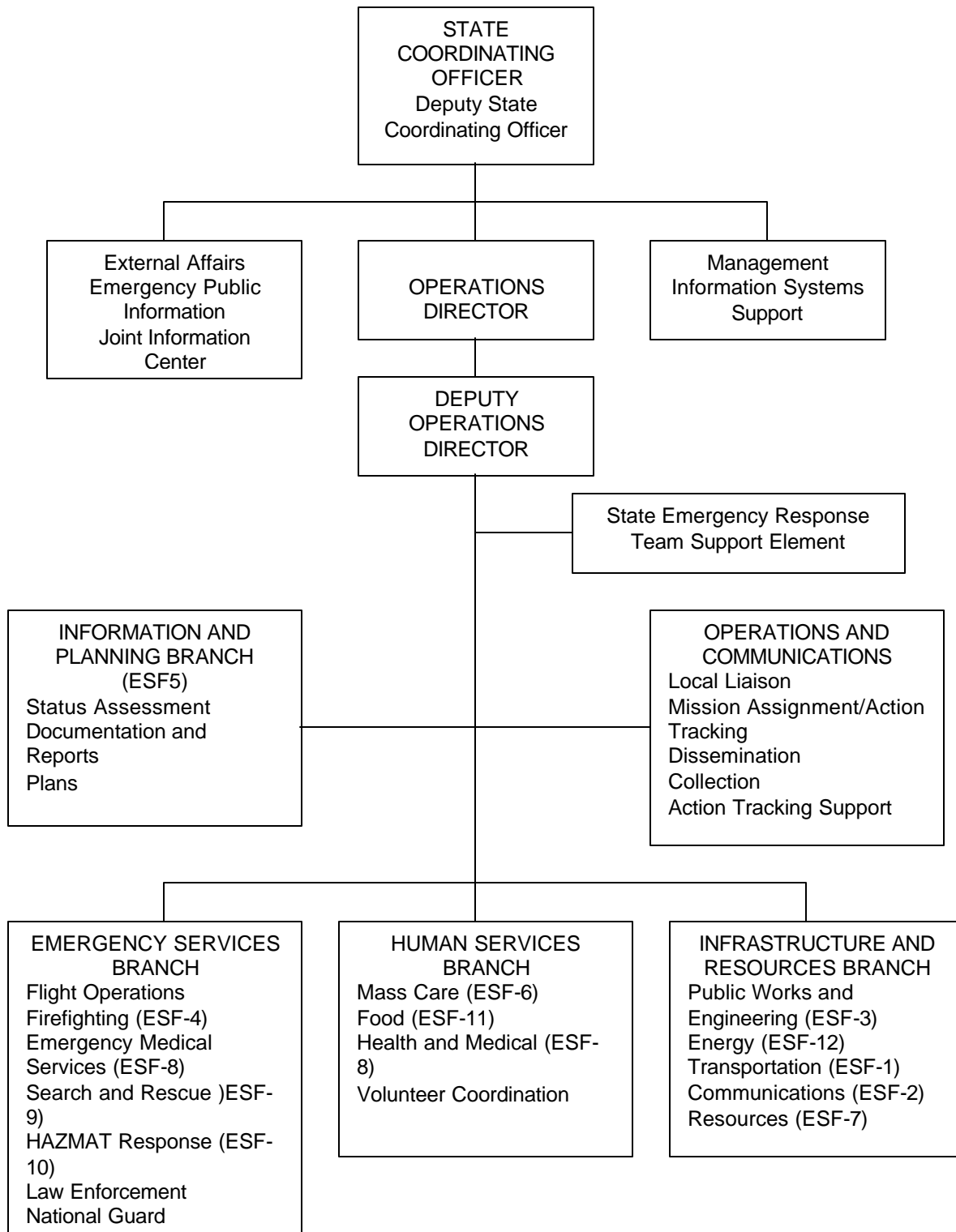
(2) The main entrance into the emergency operations center is located at the bottom of an enclosed stairwell and secured with a blast door. Access into the facility requires either an electronic key pass or gaining entrance through use of a direct telephone line to communicate with facility staff. Two exits are locked at all times and can only be accessed by the emergency operations center staff. Although there is no surveillance equipment to monitor outside the facility, the center is located on State Police Headquarters grounds.

(3) The facility includes a reception area, operations room, public information room, senior management staff room, information and planning room, communication center, and a room for Radio Amateur Civil Emergency Services operators. The facility is dual use - during routine operations it serves as offices for agency professional, administrative, and communications staff. It converts to its role as an emergency operations center when activated and staffed for emergency or disaster operations.

OPERATIONAL CHARACTERISTICS:

(4) The Virginia Emergency Operations Center (VEOC) performs direction and control, prioritization, assessment, coordination, and resource management. The emergency operations center operates with a hybrid organizational structure that incorporates elements of the incident command system and emergency support functions to structure its assessment, coordination, and resource activities. The Deputy Operations Director is responsible for three of the major functions: assessment, coordination and resource management. The assessment function is performed by an Information and Planning Branch, the coordination function by Operations and Communications; and the resource management function is broken into three branches: Emergency Services, Human Services, and Infrastructure & Resource that coordinate specific ESF functions that fall under those branches (see Figure 1) (Commonwealth of Virginia 2002).

Figure 1. Organization of the Virginia Emergency Operations Center



Source: Commonwealth of Virginia. Department of Emergency Management. Emergency Response Activities Coordinated by the Virginia Emergency Operations Center (VEOC). Organizational chart. Richmond, VA: Virginia Department of Emergency Management, rev. June 2000.

(5) The limited useable space in the emergency operations center – particularly in the operations room – restricts the internal arrangement of the facility. The operations room is set-up with six foot long folding tables in rows back-to-back, with sufficient working space, computers, (increased with new DELL Streamline Monitors being installed at time of interview), telephones, and printers set up against the wall. The workspaces are functionally assigned, with overhead signs designating workspaces (i.e., Infrastructure, Mass Care, American Red Cross, Corrections, Public Health, Department of Transportation, etc.)

(6) The operations room, where the majority of staff works, is equipped with maps and status boards, but, because of the configuration and limited wall space, the majority of resources used are now on computer. A map file inside the communication room contains topographical and other maps for the State, coded and stored for easy access. To insure availability of operations documentation for emergency operations center staff reference, the Department of Emergency Management maintains six sets of the updated Commonwealth of Virginia Emergency Operations Plan, an eight volume document that includes the SOPs and checklists needed for emergencies, throughout the facility, with three sets located in the operations room area.

(7) The Virginia Department of Emergency Management just upgraded their computer system to Dell with the Streamline Monitor, giving more useable space to the emergency operations center staff. Initially the Department of Emergency Management used the Emergency Information System (EIS), but found it required extensive modifications to the program to support the needs of task and resource inventory tracking, resource management, and plan and checklist execution.

(8) Today the Department of Emergency Management uses a locally developed Virginia Emergency Operations Center Action Tracking System, based on an Access database, that provides the data needed in one place for monitoring of task and resource inventory tracking, resource management, and plan execution. It allows information to be stored in one system for tracking of messages, requests, responses, general information, and actions taken, with the option of provide reasoning for decisions made. Another Access database logging system records all incoming and outgoing messages. While the Department of Emergency Management uses the Action Tracking System for the majority of its documentation management, there are still certain documents for hazardous incidents that are still traditionally written, distributed, and filed. The Department anticipates integration of these documents into the Action Tracking System in the near future to eliminate the old method of information recording.

(9) The Department of Emergency Management's communication system has integrated traditional with new technology. Communication systems used include standard multiple line telephones (there are no single line units in the facility), facsimile machine, Internet for electronic mail and damage assessment reporting, the Virginia Criminal Information System, the State Police Microwave system, with special phones for sending out warnings, a dedicated warning circuit for nuclear power plant incidents, the National Attack Warning System (NAWAS), a national weather alert radio, very high frequency Public Safety radios, high frequency radios, and satellite and cellular phones. To maintain communications during daily routine operations, the communications room is staffed with two personnel scheduled on eight hour rotation shifts. When fully activated, the emergency operations center staffing changes to an eight hour rotation shift staffed with a communications supervisor and three communications

personnel (one as a backup operator). In addition, Radio Amateur Civil Emergency Service volunteers are housed in an adjoining where their equipment is set-up for amateur radio support.

(10) While the workspaces provide sufficient work area, the operations room is quite compact -- particularly during activation, when there are approximately 50-60 emergency personnel on call for 12 hour rotation shifts from 7:00 am to 7:00 pm and 7:00 pm to 7:00 am. Of these 50 – 60 personnel, there are one to two agency representatives from each agency activated, two communications personnel, one communications supervisor, and one back-up communications operator, other Department of Emergency Management staff, and Radio Amateur Civil Emergency Service volunteers (Demm 2002).

SURVIVABILITY AND SUSTAINABILITY:

(11) The Virginia Emergency Operations Center's construction should withstand a nuclear attack or an earthquake within the range of moment magnitude 6.0-7.0 (Demm 2002). The facility, although underground, is on elevated land and does not lie within a flood plain. While the facility was built to withstand a nuclear attack and does have an air filtering system, it does not contain a decontamination room, although staff members of the Department's technical hazards group could rig one if required.

(12) The facility is equipped with a backup generator to provide backup power and an uninterruptible power supply system to protect computers from power surges -- critical as operations are computer-driven. The diesel-powered generator has a 2000-gallon fuel tank that could provide power for 30 days.

(13) As the emergency operations center was constructed in the mid-1950s, it lacks the modern design features to accommodate the needs of housing a 50-60 person staff for an extended period. With only 2200 square feet of usable space, most of that space is dedicated to operations. Staffing is based on a 12-hour rotation for emergency personnel because there are no accommodations for billeting staff for extended stays. The only support facilities available are two restrooms and a kitchenette; during activation the emergency operations center relies on vendors for food services and lodging.

(14) The facility does not have adequate storage space to stockpile foods or sanitary supplies for any extended period. Additionally, the facility does not have an independent water or sewage system; it relies on county water supply and the State Police Headquarters sewer system.

(15) Back-up communications are provided through the Radio Amateur Civil Emergency Services (RACES). Also, if the RACES system was disabled or the Virginia Emergency Operations Center was to be evacuated, a command post bus and a communications truck with similar equipment provide additional back-up.

ALTERNATE FACILITY CAPABILITIES:

(16) In the event the primary emergency operations center must be evacuated, an alternate site is available for relocation. Prior to the 1990s during the Cold War, facilities at either James Madison University in Harrisonburg or the University of Virginia in Charlottesville were used as

alternate locations to provide safe separation from Richmond during a nuclear attack. Today, the alternate emergency operations center is located in a building housing administrative offices of the Department of Emergency Management, an above ground facility within several miles of the primary emergency operations center. Because the primary facility is cramped during activation, the public information officer, rumor control, the legislative liaison, and hazard technical services typically operate out of the alternate facility as an extension to the emergency operations center.

PRIMARY AND ALTERNATE FACILITY USAGE:

(17) Based on a ten-year average, the emergency operations center is activated three times a year for hurricanes, flooding, forest fires, tornadoes, and major transportation or organized events. In September 2001 the emergency operations center was activated during the attack on the Pentagon. The last actual event activation was for flooding in western part of Virginia (in Tazwell and Buchanan Counties) when flash flooding occurred on March 3 and March 5. The average range of time for full activation during events runs from three to five days.

(18) Typically, the emergency operations center participates in three exercises annually for the North Anna or Surry Power Station nuclear incident exercises, the annual State Emergency Response Team Exercise, and Civil Air Patrol exercises. The next scheduled exercise is the North Anna Power Station exercise, scheduled for mid-July 2002. The emergency operations center also has a representative participate in local jurisdiction and tabletop exercises and other coordinated exercises.

(19) The last actual activation of the alternate as an annex during emergency operations center activation was during the March 2002 flooding. The alternate site has not been activated during exercises and has not been incorporated into the exercise program as an alternate site specifically.

WORKS CITED:

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Demm, Paul, Operations Manager, Virginia Department of Emergency Management. Interview by the author, Richmond, VA, May 21, 2002.