AN EMERGENCY OPERATIONS CENTER FIELD STUDY – HENRICO COUNTY, VIRGINIA

by Anna M. McRay

Copyright 2002 by Anna M. McRay. All rights reserved. Permission to reproduce copies for instructional use and individual copies for personal use as needed is granted to university faculty, researchers, and students.

INTRODUCTION:

(1) This paper reports observations of a June 2002 field study of the Henrico County, Virginia, Emergency Operations Center. Given security concerns, the study does not provide the specific location of the facility.

EMERGENCY OPERATIONS CENTER DESCRIPTION:

(2) The primary emergency operations center is located in a masonry and concrete reinforced public safety building built in 1999, in a room directly adjacent to the public safety answering point. The center is a well lit, 36 foot square, carpeted room on the second floor, and outside corner, of the building. Its windows are protected by glass reported to be rated to be able to withstand hurricane force winds. The room is dual use, used for training communications officers when the emergency operations center is not in operation.

(3) Workspace within the emergency operations center is configured with an emergency planning computer workstation in the southwest corner and four emergency communications consoles in clusters of two on the north wall of the center. In the center of the room, when the emergency operations center is activated, eight six foot long tables and chairs (normally used in a classroom seating pattern) are rearranged into a rectangle with the chairs being placed on the outside of the tables. See Figure 1.

(4) Display systems include two ceiling mounted televisions (one in the southwest portion of the room, the other in the northeast) with cable access to allow the staff members to see developing situations as reported by media outlets. There are also a large drop-down screen for overhead projection and a whiteboard on the wall at the front of the room.

(5) Four interior windows open in the room for a full view of the public safety answering point. The four fully functional communications consoles in the room are used to manage radio operations on a tactical operations channel in the County’s 800 MHz frequency allocations. When in operation, these positions are staffed by two senior level communications officers brought in from the communications center.

EMERGENCY OPERATIONS CENTER OPERATIONS:

(6) The emergency operations center is operated by the County Manager’s Office, but is administratively managed by the Division of Fire (County of Henrico 2002d), with primary responsibility assigned to the Community Affairs and Safety Officer. The center is activated whenever the County Manager, with approval of the Board of Supervisors, declares a local...
emergency for an event “which imperil[s] the lives, safety, and property of local residents...,” and it is necessary to “…ensure that County agencies can enlist the necessary resources to respond quickly and effectively to these conditions.” (County of Henrico 1998, 24)

Figure 1. Henrico County Emergency Operations Center Floorplan

Notes: This floorplan is a sketch and not intended to be to scale.

(7) Fourteen to sixteen people from various County agencies staff the primary emergency operations center when it is fully operational. Agencies included are reflected in Table 1. These representatives are positioned around the rectangular table arrangement in the center of the room. Members of related agencies (such as Parks and Recreation and the American Red Cross liaison) sit close to each other to facilitate coordination of similar tasks.

(8) Each staff member is responsible for maintaining and bringing his or her own copies of the Emergency Operations Plan and department Standard Operation Procedures. The Division of Fire also maintains for the emergency operations center a standard operating procedures book for specific disasters.

(9) As each member arrives, they are given a nameplate that identifies the department represented. They are also given emergency operations center packets that include the various paper versions of on-line forms and check sheets. All sheets in the packet are color coded to relate to level of importance. For example, message forms are coded green (low priority), yellow (medium priority), and red (high priority) to ensure that no vitally important messages are lost. Examples of paper versions of on-line forms include the Local Situation Report that can be filled out and faxed to the Virginia Emergency Operations Center. These state forms can also be
accessed on-line and submitted through the Virginia Online EOC (Commonwealth of Virginia 2002).

Table 1. Emergency Operations Center Staff

| American Red Cross Liaison | Building Inspectors |
| Commonwealth’s Attorney | County Manager/Board of Supervisors |
| Department of General Services | Division of Fire and Emergency Medical Services |
| Division of Police | Mental Health |
| Office of Budget Management | Parks and Recreation |
| Health Department | Public Information Office |
| Public Works | Schools |
| Sheriff’s Office | Social Services |

(10) The emergency operations center has several emergency management software tools at its disposal, including Cameo Suite and HURREVAC 2000. Additionally, the center employs a locally-designed program to detail plume evacuation zones in case of a chemical disaster. All computer programs are hosted on a designated secure server using a Microsoft Windows NT operating platform linked to a local area network and T1 lines. This architecture allows staff members to plug laptop computers in at their tables to support their emergency functions.

(11) An internal telephone system with dedicated lines to support 14 to 16 handsets is the center’s primary communications system. The center maintains a list with non-published telephone numbers for these lines exclusively for use within the emergency operations center. All telephone and local area network lines are separate from the rest of the building’s equipment; however, there are redundancies in the system that allow information used in the emergency operations center to be accessed in the adjacent public safety answering point.

EMERGENCY OPERATIONS CENTER SURVIVABILITY AND SUSTAINABILITY:

(12) A diesel-powered generator, located in the rear of the facility, provides power for essential rooms in the building, including the emergency operations center and the public safety answering point. The generator is checked at least weekly and is maintained as needed by the Public Works Department. The center also has restroom, shower, locker, and kitchen facilities on the same floor. The water and sewer systems are not independent of the general systems; however, there is water and food storage available to maintain the center for the first 24 hours. There is no specified sleeping area on the emergency operations center’s floor. However, there is a gymnasium/basketball court within the building that can be used for temporary housing for staff members.
(13) Access to the facility is positively controlled through magnetic card access, electronically controlled doors and video surveillance systems. Access to the emergency operations center is further restricted by a separate magnetic card access system. Staff of the emergency operations center and public safety answering point can move freely between the two rooms.

(14) There is no decontamination area in the building. The closest decontamination facilities are a nearby hospital or an area fire station, both within 5 minutes travel.

(15) For transient failures the public safety answering point provides duplicate access to communications and computers systems with the same databases. In extreme cases, operations can be moved to the alternate emergency operations center, located in the basement of a building in another government center at the other end of the County. The centers mirror each other as far as forms and supplies, accessibility to designated telephone lines, and computer capabilities. However, the alternate center is located underground in a reinforced steel vault, originally used as the primary emergency operations center. The alternate provides workspace for 22 to 24 people if needed, as opposed to the 14 to 16 staff maximum for the primary center. This trip from one facility to the other takes approximately 20 minutes.

**EMERGENCY OPERATIONS CENTER USE:**

(16) The emergency operations center is frequently set up for events in Henrico County. For example, the center was set up for use in May 2002 during annual Spring stock car races at the Richmond International Speedway. However, it was not activated. “Set up,” as used as an operational term in Henrico County, involves making certain that the emergency operations center is ready to be activated, and ensuring that the key staff members are on call and are available in case the center is activated.

(17) The last activation was precautionary for possible problems during the impending Year 2000 transition in December 1999 (Cox 2002). Before the Year 2000 activation, the center was last activated for Hurricane Floyd in September 1999. Most frequently, activation of the emergency operations center occurs for weather related incidents, such as the winter snow or ice storms that frequent the Richmond, Virginia, area. On average, the center is activated once every one to three years for actual disaster operations. In addition, practice drills are held at least once a year with activation and staffing of both the primary and alternate emergency operations centers in all drills.

(18) Current emergency operations center status and emergency information (County of Henrico 2002a) is available through the County’s main Internet page (County of Henrico 2002b). For easy public access during the Year 2000 transition, the emergency operations center maintained a separate Web page that notified the public of current situations (County of Henrico 2002c). This updating procedure would be repeated for any disaster event (Cox 2002).

**WORKS CITED:**


County of Henrico. County Manager’s Office. EMERGENCY OPERATIONS PLAN. Richmond, VA: County of Henrico, 1998.


Cox, Michael, Henrico County Division of Fire, Community Affairs and Safety Officer. Interview by the author, Richmond, VA, May 21, 2002.