

FORCES COMMAND
HURRICANE ANDREW RESPONSE



JTF ANDREW AAR

ENGINEER OPS
AND SUSTAINMENT

JULLS LONG REPORT

in peace time and kept on the shelf. Also, a potential bidders list nationwide would be prepared and kept up-to-date for use in any emergency. These contracts could be awarded by DOD in coordination with FEMA or by primary ESF administrators.

(5) (U) The development of "push packages" of forces and supplies along with provisions for automatic response will speed military response. We should consider a goal to have significant assistance on the ground within 72 hours after the disaster. Initial aid, e. g., search and rescue teams, medical support, and life support, should arrive within 24 hours.

(6) (U) Supporting JULLs: 00745-94017, 00540-45696, 00136-37292, 02254-95383, 00657-57960, 00750-28689, and 21077-83123.

f. (U) ENGINEER OPERATIONS AND SUSTAINMENT.

(1) (U) The DOD relief effort was the largest joint and combined engineer effort ever assembled to assist in the relief, recovery and reconstitution efforts. The engineer force consisted of Army, Air Force, and Marine engineer units, the Navy Seabees, Canadian military engineers, and United States Army Corps of Engineers (USACE) employees and contractors. The military engineer effort grew to a peak of 3,500 military personnel, 600 USACE employees, and over 4,000 contractor personnel.

(2) (U) Military engineers filled the void until contractors, volunteer relief organizations, and local communities could be mobilized to carry on with disaster recovery. Appointing a USACE Division Engineer (BG Fuhrman) as the JTF Engineer and using an active duty engineer group (36th Engineer Group) as the JTF engineer staff ensured the synchronization of the USACE (ESF #3) and JTF engineer effort. It also provided the JTF Commander with an expert in contracting of engineering services (USACE).

(3) (U) Engineer forces flowed into the area of operations based on individual service component estimates of what was needed rather than an accurate engineer reconnaissance and assessment. Had an accurate engineer assessment been accomplished in the first 12-24 hours of the disaster, synchronized engineer recovery effort could have been brought to bear much earlier. Earlier deployment of the engineer group into the area of operations could have alleviated this situation.

(4) (U) We are looking at having Active Component CONUS Engineer Groups establish a working relationship with the CONUSA staff in their geographical areas. This pre-disaster planning and coordination will pay dividends in future crises. This is

JULLS LONG REPORT

of MSCA missions.

(5) (U) Supporting JULLs: 02261-35150, 01943-19922, 91571-29735, and 91635-03944.

g. (U) JTF ESTABLISHMENT, ORGANIZATION AND PERSONNEL ACCOUNTABILITY.

(1) (U) No type JTF HQ structure was available to aid in the establishment of a JTF HQ for Hurricane Andrew response operations. This lack of JTF HQ template hindered the rapid establishment of the JTF HQ. Additionally, the filling of personnel requirements without line numbers created numerous problems and made accountability of personnel extremely difficult.

(2) (U) A type JTF organization structure with positions identified by line numbers needs to be established and included in the FORSCOM Catastrophic Disaster Plan. We are working on developing a type JTF organization structure.

(3) (U) Supporting JULLs: 00236-03535 and 02359-91497.

h. (U) HEALTH CARE.

(1) (U) Early assessment of Health Care needs is critical to providing the required support. ESF 8 provides for Public Health Service (PHS) taking the lead in mobilizing and deploying an assessment team. DOD medical assets must be part of any assessment team including a Disaster Assistance Survey Team (DSAT) or a FORSCOM assessment team.

(2) (U) Joint Medical Planners exist at each CONUSA with the experience in conducting medical disaster relief operations and in working daily with Regional FEMA offices, state agencies, the PHS, and the Veterans Association (VA). Early augmentation of any type organizational Joint structure from the CONUSA Joint Medical Mobilization Offices is a must. Any Catastrophic Disaster Response Plan which creates functional task forces must include one for medical.

(3) (U) There was difficulty in providing resources to the JTF Surgeon and tracking all medical personnel and issues. CINCFOR's role and authority as the supported CINC must be clearly spelled out, and continually reinforced to all supporting commands and agencies.

(4) (U) CINCFOR, working with the CONUSA or JTF, must begin early on to develop criteria to determine mission success and establish appropriate points for the transition of the DOD medical infrastructure to civilian control.

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JULLS LONG REPORT

11/16/92

1. (U) JULLS NUMBER: 02261-35150 (00004), submitted by FORSCOM FCJ3, LTC Makowski, 367-6527, (404)669-6527.
2. (U) Operation HURRICANE ANDREW RELIEF conducted by CINCFOR on 08/24/92.
3. (U) KEYWORDS: RWO (REAL WORLD OPS), USA (US ARMY), USAF (US AIR FORCE), USN (US NAVY), USMC (US MARINE CORPS), ADVERSE WEATHER, GUARD COMPONENT, RESERVE COMPONENT, SPECIFIED COMMAND, OPERATIONS, SOF (SPECIAL OPS FORCES), LOGISTICS, ENGINEERING, EQUIPMENT, SPECIAL INTEREST ITEM, DEBRIS REMOVAL, DEBRIS CLEARANCE, HURRICANE RELIEF, HURRICANE RESPONSE, ASSESSMENT.
4. (U) TITLE: ASSESSMENT - Debris Removal.
5. (U) OBSERVATION: The mission to clear debris from major arteries and to remove debris threatening public health or safety was fulfilled. Military engineers removed over 360,000 cubic yards of debris.
6. (U) DISCUSSION:
 - a. (U) Hurricane Andrew left an estimated 42 million cubic yards of debris. Most roads were blocked and most structures were destroyed. Broken telephone and power poles hanging by power lines, partially uprooted trees, and unstable structures threatened public safety. Piles of leaves, garbage, and other debris blocked drains and sewers. Debris also provided breeding places for insects and rodents capable of carrying disease.
 - b. (U) Initially, Florida Army National Guard (FLARNG) engineers cleared debris. The U. S. Army Corps of Engineers (USACE), Jacksonville District began letting contracts for debris removal. However, the magnitude of the amount of debris overwhelmed their efforts.
 - c. (U) The 841st Engineer Battalion (USAR) was located in Miami, FL. As a wheeled corps combat engineer battalion it had dump trucks and bucket loaders needed for debris removal. However, Public Law 10 USC 673b prevented their involuntary call-up to active duty to perform disaster relief operations. As with all reserve component units, we had to rely upon volunteers for active duty. Out of 847 assigned personnel, 222 personnel volunteered for active duty. The number volunteering for active duty reflected the fact that many unit personnel were hurricane victims themselves. The 841st Engr Bn (-) was used to clear the runways and roadways of Homestead AFB so it could be used as an aerial port.
 - d. (U) Prior to the arrival of the Joint Task Force (JTF) engineers, the USACE contracted with local civilian contractors to begin debris removal. As military engineers arrived, they

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JULLS LONG REPORT

11/16/92

aided in debris removal.

e. (U) Initial engineer debris removal operations were hindered by the lack of information on debris removal priorities. Due to lack of damage assessment surveys by engineer personnel and the inability to contact local officials to get their priorities, newly arrived units began debris removal operations based on their perceived priorities. In some cases, work was done in areas with low local government priority while high priority areas were delayed. In other cases, work overlapped work by local contractors and city, county, and state work crews.

f. (U) These problems were resolved with the appointing of the Commander of the North Central Division, Corps of Engineers as the JTF Engineer. His knowledge of and position within the USACE greatly aided the coordination of military engineers with the USACE. Since the USACE was responsible for Emergency Support Function 3, Public Works and Engineering, the USACE coordinated debris removal efforts of local governments, contractors, and military engineers. Personnel from the 36th Engr Gp comprised the JTF Engineer staff.

g. (U) The initial deploying engineer units from the XVIII Abn Corps were not well equipped for massive debris clearing. They did not have the dump trucks and bucket loaders needed for massive cleanup. However, they were rapidly deployable. They did a good job until heavier engineer units arrived. Ultimately, engineer units were augmented with over 170 leased dump trucks and 50 leased bucket loaders. Additionally, numerous chain saws were bought or leased to clear trees and power poles.

h. (U) From the beginning, the USACE had the lead on debris removal. Even by 4 September, 50% of all debris was being cleared by the USACE using contractors. By 18 September, all debris was being hauled by USACE contractors. This freed military engineers for military missions or other humanitarian missions such as building life support centers and repairing schools.

7. (U) LESSON LEARNED: None. This lesson is an assessment.

8. (U) RECOMMENDED ACTION: None.

9. (U) COMMENTS: (02261-35150) See Joint Task Force Andrew After Action Report and Joint Universal Lessons Learned (JULLS) for further information on JTF engineer activities.

--- (U) SUBJECT: OPERATIONS

--- (U) INTEROPERABILITY: JTTP

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telephone systems as quickly as feasible. As the commercial telephone network recovered, units incrementally removed tactical telephones.

f. ENGINEER OPERATIONS AND SUSTAINMENT: When Hurricane Andrew passed through southern Florida destroying public utilities and thousands of structures, it left an estimated 42 million cubic yards of debris. The operation saw the largest joint and combined engineer force (Army, Air Force and Marine Corps engineers; Navy Seabees; Canadian Air Force engineers; and United States Army Corps of Engineer civilian employees and contractors) ever assembled to combat the destruction.

The first engineers on the scene were FLARNG followed closely by employees of the U.S. Army Corps of Engineers (Jacksonville District) and the 841st Engineer Battalion (U.S. Army Reserve) from Miami. The Jacksonville District personnel immediately went to work to remove debris to open roads and let contracts to provide water, ice, and porto-lets. The 841st Engineer Battalion, utilizing volunteer soldiers, cleared roads and the runways of Homestead Air Force Base. The military engineer force grew to over 3,500 personnel and the Jacksonville District expanded to over 600 Army employees and 4,000 contractor personnel.

Over 2,500 Army engineers of the 20th Engineer Brigade cleared roads and runways; removed debris; built Life Support Centers; provided generators; supplied food, water, and sanitation facilities; and cleared school yards along with performing other engineer tasks. Navy Seabees, operating under the leadership of the 22d Naval Construction Regiment, repaired 48 Dade County schools in addition to debris removal, public facility roof repairs, and traffic signal restoration. Marine Corps engineers operating as part of the Special Purpose Marine Air Ground Task Force (SPMAGTF) built and ran Life Support Centers, installed power poles, and removed debris. Air Force engineers concentrated on clearing debris and supporting operations at Homestead AFB.

Canadian Air Force engineers repaired schools, removed debris, and provided support to the Prime Power Engineer Battalion. The USACE Prime Power Engineer Battalion provided generator support to the Northwest Wellfield (Miami's largest source of water) and to numerous other facilities and organizations. The Jacksonville District (USACE) provided not only immediate response support but quickly moved to long term recovery operations with nearly \$400 million in contractual authority under ESF #3 for debris removal, roof repair, school repair, trailer court clearing, etc.

Military engineers filled the gap until contractors, volunteer relief organizations, and local communities could be

mobilized to carry on with disaster recovery. Appointing a USACE Division Engineer as the JTF Engineer and using an active duty Engineer Group as the JTF Engineer staff ensured the synchronization of the USACE (ESF-3) and JTF engineer effort.

USACE's contractual capability reinforced and complemented the military engineer effort in the early stages of recovery and ultimately allowed military engineers to disengage as private contractors came on line.

Six lessons learned were: (1) Engineer forces flowed into the area of operations based on individual service component estimates of what was needed rather than an accurate engineer reconnaissance and assessment. Had an accurate engineer assessment been accomplished in the first 12-24 hours of the disaster, synchronized engineer recovery effort could have been brought to bear much earlier. (2) Class IV push packages for disasters need to be developed as very little construction material is available in an area hit by a disaster. (3) The appropriate USACE Division Engineer should become the JTF Engineer and the nearest active duty Engineer Group should provide the JTF Engineer staff. (4) Seabees were particularly effective because of the high level of construction skills available in their organization. Ships' crews constitute an extremely valuable work force in complementing the engineers because of their ability to work from a ship and not have to expend effort in establishing an operating base. (5) Marine Corps Engineers train on setting up base camps and are much more experienced in this operation than other engineer organizations. (6) The ability to supplement TO&E authorizations with rental equipment in domestic disasters greatly enhances their organic capabilities.

g. MILITARY POLICE/PHYSICAL SECURITY: The Florida Army National Guard was not federalized and this enabled the Guard to conduct the mission of law enforcement operations. Federal law (18 USC 1385, commonly known as the Posse Comitatus Act) and/or regulatory authority, however, prohibits active component military personnel from participating in civilian law enforcement activities. Thus, active duty personnel were free to concentrate on the relief and recovery mission. This split of duties based on law and regulation worked well for both missions. Military Police support was provided by the U.S. Army, U.S. Marine Corps, and the Florida Army National Guard. Military Police assets, both Active Component and Army National Guard, must be among the first assets deployed to a disaster area. The fact that Army National Guard assets were not federalized facilitated enforcement of civilian laws in the affected area. Active component military police provided traffic control (but only where such activity was in furtherance of a military purpose, e.g., facilitating the movement of military convoy traffic), are and route reconnaissance, security of military equipment and