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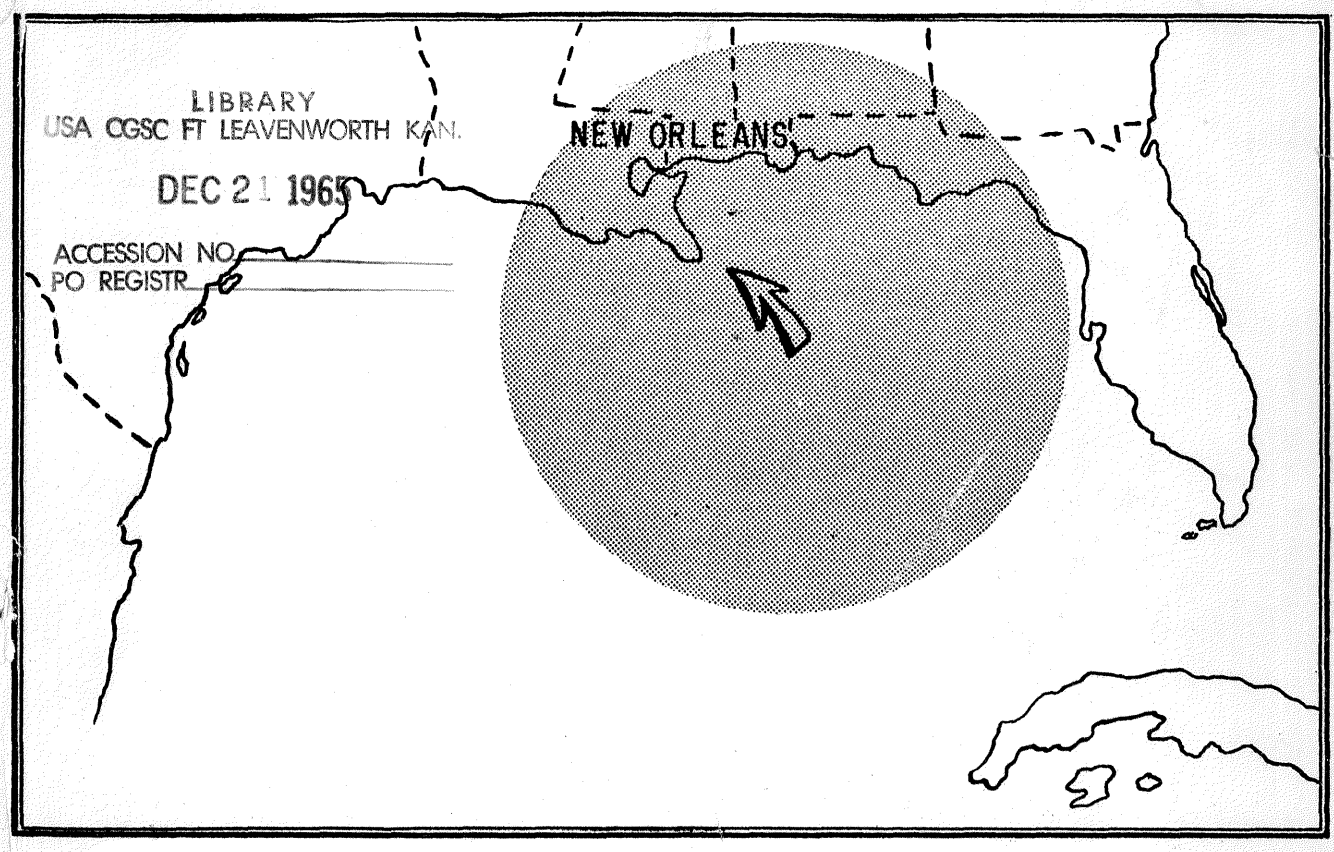

HURRICANE BETSY-1965
AFTER ACTION REPORT

DEPARTMENT OF THE ARMY
HEADQUARTERS
NEW ORLEANS ARMY BASE
NEW ORLEANS, LOUISIANA 70140

IN REPLY REFER TO:
MTE-NO- AO

16 December 1965

SUBJECT: After Action Report

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TO: Commandant
Command and General Staff College
Fort Leavenworth, Kansas

The inclosed After Action Report, New Orleans Army Base, Hurricane BETSY - 1965, is furnished for your information.

FOR THE COMMANDER:

R. F. Bundy

R. F. BUNDY
Chief, Office Services Branch

1 Incl
as

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I. FOREWORD -

This narrative is based upon staff reports rendered by major functional elements of this installation. Its contents were compiled by eyewitnesses to the drama, devastation and restoration created by Hurricane BETSY - 1965, as experienced at the New Orleans Army Base.

II. PRE-STRIKE -

(a) Civil Defense - On 3 August 1965, officials of the New Orleans Army Base attended a meeting in the Mayor's office. City, State and Area Civil Defense representatives were present. At this particular meeting, each representative was requested to provide information concerning preparations that had been made in his particular area of responsibility to provide aid in the event of an emergency situation.

Also, at this meeting the Mayor requested the New Orleans Army Base to be added to the list of Red Cross Shelter Areas for possible use in the event of an emergency situation.

(b) Command and Control - Upon receipt of official weather forecasts indicating that Hurricane BETSY had entered the Gulf of Mexico through the Strait of Florida, all staff members of the New Orleans Army Base were alerted to refamiliarize themselves with the contents of the New Orleans Army Base Hurricane Plan, dated 31 August 1965.

An official weather map was established in the Security Branch, and based upon official weather advisories, the tracking of Hurricane BETSY was accomplished.

When the storm was located at 88.2 Longitude, and 27.4 Latitude, all personnel of the New Orleans Army Base and tenants were notified that the Base was in Condition III. In explanation thereof, this action indicated to all concerned that,

in accordance with the New Orleans Army Base Hurricane Plan, the following circumstances existed: Hurricane BETSY with winds of 50 knots (55 miles per hour) or more was expected in the New Orleans Area within 36 hours or was within 300 miles of this location.

All organizational elements were notified to commence operations immediately to "batten down" in preparation for the storm.

(c) Communications - On Wednesday, 8 September 1965, the minimum number of persons required to operate the telephone and communication activities was established. Personnel scheduled to remain on duty were advised to be prepared to remain at the Army Base for an indefinite period of time as normal reliefs could not be anticipated.

(d) Supply - Supply Division immediately implemented the NOARB Hurricane Plan and the following actions were taken:

(1) List of available supplies and equipment was reviewed and arrangements made to set up 1000 cots, mattresses, and bedding for possible use by evacuees. Make up for beds was issued on hand receipt to many outside agencies, including Sara Mayo Hospital, Touro Infirmary, Coast Guard located at Lakefront, etc.

(2) Outside storage areas were checked and all property secured or moved to areas less susceptible to damage or high tides.

(3) All local sources of supply were contacted for availability of emergency supplies if needed. Our sources were GSA, Coast Guard and commercial firms.

(4) A complete inventory was taken on all items known to be required during such a hurricane. The items consisted mainly of flashlights, battery operated lanterns of all types, paper products such as plates, cups, napkins, towels, janitorial supplies. Emergency requirements were placed on GSA and supplies picked up and placed in Self Service Supply Center prior to 1630 hours, 9 September 1965.

(5) An oral request was received for twenty lines to secure barges. Due to the pending storm commercial sources of supply were overloaded with work and could not offer a definite delivery. Through coordination of the Chiefs, Procurement Branch, Plant Maintenance Division, and Chief, Supply Division, the twenty lines were fabricated and spliced in time to meet the deadline, using Army property. This required a detail of four men for eight hours.

(6) After receipt of information that the hurricane was a possible threat to this area, procurement personnel immediately followed up on all purchases of emergency supplies and services.

(e) Equipment - Hurricane disaster plans were reviewed and all personnel of Equipment Division were briefed on specific assignments and overall responsibility of the Division during

the emergency. Equipment status was established indicating equipment available, by type, including vehicles in shop for repair. Vehicles which had not undergone extensive tear down were buttoned up and placed either into operation or available status.

Vehicles on the ready line were given complete service check and filled with gasoline. Wheels were chocked, brakes were set, canvas tops were lashed and secured. All available covered storage space in shop area was utilized to protect operational vehicles. Additionally, all unsecured items, i.e., warehouse trailers, scooter, etc., were placed inside shop area, and all outside signs were removed from the shop building.

Approximately 50% of the workforce was retained on duty, 9 September 1965, 1530 hours, for emergency assignments.

Additional electronic repair personnel requirement was placed on Hq, Eastern Area, Military Traffic Management and Terminal Service in anticipation of heavy workload on communication equipment after the hurricane strike period.

(f) Plant Maintenance - Preparatory actions taken in the plant maintenance area included: Securing air conditioning towers on the roofs of Unit 1, Unit 2 and Building S-17; closing all window exhaust fans; fabricating shield to protect main lobby glass entrance; policing all outside areas of the Base; checking and fueling emergency generators; making emergency repairs to kennear doors in cargo areas; and providing assistance to set up 1500 person shelter areas.

(g) Security - Established and maintained the Base Weather Situation Map. Received official weather advisories and kept the Commanding Officer, New Orleans Army Base, informed of Hurricane BETSY's position. Recommended conditions III, II, and I as the inner limit of each condition approached.

Progressively tightened overall physical security posture of the Command commensurate with the increasing severity of the hurricane conditions. Placed Department of Defense police on emergency standby status.

(h) Medical - The New Orleans Army Base Dispensary began a 24 hour/day vigil on 9 September 1965. This action included placing military dispensary personnel on a rotating 24-hour call basis; preparation of the emergency room for treatment of injuries anticipated during the first 24-48 hours of the storm; preparation of medicine and equipment for emergency delivery of any pregnant women during their stay in the shelter; establishment of a record-keeping procedure to determine the number and type of medical conditions, prescriptions and special laboratory tests seen during the operation; establishment of reserve lighting utilizing battery operated lamps; cleansing of stainless steel buckets for preparation of infants' formula; and similar preparatory actions.

III. STRIKE -

(a) Environment - To obtain maximum appreciation for the impact of BETSY's approach and strike period, one must understand the environment in which the populous of Greater New Orleans was living at that time.

Primarily, Hurricane BETSY was the second intensive tropical storm to approach and strike the New Orleans Area in less than a year. Severe damages were experienced in September 1964 as a result of Hurricane HILDA. While it is true the full fury of HILDA was not experienced in New Orleans, wind damages and flooding of certain areas were caused by the "backlash." New Orleanians, poised and ready for the full strike, were in effect sideswiped. BETSY's path in the Gulf of Mexico, up until 12 hours before the strike, was the basis for a majority of the populous to feel that they would again be "sideswiped."

However, in the nine hour period immediately preceding the arrival of the storm's center, several things occurred which changed the somewhat complacent attitude of the City, to one of extreme concern. The storm took a more northerly course which pointed it towards New Orleans. This environment was further complexed by the fact that the storm's forward motion was announced to be approximately 18-20 miles, which meant that when the storm took its northerly turn, its center was approximately 6 to 8 hours away from New Orleans.

(b) Command and Control - In a joint staff meeting held by the CO, New Orleans Army Base and the CO, Gulf Outport, at 1330 hours, 9 September 1965, Condition II was announced. At this meeting, representatives of every organizational element of both the Base and Outport were present, in addition to representatives from certain tenant agencies. Each responsible official outlined what actions had been taken, and what actions would be taken if the path of the hurricane pointed in the direction of New Orleans. The decision was made at this meeting to dismiss the workforce at 1530 hours, with the exception of security, maintenance and other required personnel. The details of actions taken are contained in functional areas herein.

In addition to the above, a Shelter Director was appointed to serve as overall coordinator in the sheltering of evacuees at the installation. The plans at this point were to handle approximately 1500 evacuees, consisting mainly of military and civilian personnel assigned to the Army Base, the Gulf Outport, and tenants, as well as their families.

At 1530 hours, 9 September 1965, based upon official weather advisories, the New Orleans Army Base assumed Condition I. In other words, the following circumstances existed: Hurricane BETSY with winds of 50 knots (55 miles per hour) or more was expected in the New Orleans area within 12 hours; or was within 150 miles of this location.

At 1600 hours, the Commanding Officer, New Orleans Army Base, and the NOARB Shelter Director, attended an emergency meeting called by the Mayor in the New Orleans Civil Defense Headquarters. Each person present was requested to report on the readiness of their facility and/or resources in connection with the approaching hurricane.

At 1700 hours, a registration system was placed into effect. By 2000 hours approximately 1400 persons, principally employees, military personnel, tenants, and their families had sought shelter, as anticipated.

The Commanding General, 4th U. S. Army, telephoned Colonel Edward P. Ketcham, at 0300 hours, Saturday, 11 September 1965, and indicated he had received information from Department of the Army that New Orleans was established as a major disaster area and that federal assistance was authorized. Colonel Ketcham was asked what assistance was needed.

A staff meeting was held at 0330 hours, 11 September 1965, wherein the following requirements were established for a 5000 population at New Orleans Army Base:

Personnel	Supplies
25 Mess Teams	50,000 Rations
4 Physicians	3,000 Cots
2 Shower Units	3,000 Blankets
1 Engineer Co.	3,000 Pillows
(Laborer Personnel	12,000 Sheets
(Sanitation Personnel	12,000 Pillow Cases
	Medical Supplies

Colonel Ketcham placed the above requirements with Commanding General, 4th U. S. Army, who indicated he would place same on Commanding General, Fort Polk.

At approximately 1100 hours, 11 September 1965, the Commanding General, 4th U. S. Army, visited New Orleans Army Base and established the New Orleans Army Base as an Operation BETSY Sub-Sector Command, under the command of Commanding General, Fort Polk, who was also designated as Operation BETSY, Sector Commander.

(c) Sheltering and Care of Evacuees - The full fury of BETSY struck the New Orleans Army Base between 2300 hours, 9 September 1965, and 0200 hours, 10 September 1965. It was estimated by shelter coordinating personnel that approximately 1500 - 1800 persons had sought, and were provided shelter, prior to 2300 hours, 9 September 1965.

At approximately 0230 hours, 10 September 1965, numerous types of vehicles began arriving at New Orleans Army Base, loaded with evacuees, who repeatedly reported that they were being evacuated from an area, within 1 mile from NOARB, that was inundated because of a levee break on the Industrial Canal east bank. (Official releases in the news media, several days after the storm, indicated that a 26' tidal surge was experienced in the New Orleans area. Other releases based upon eye witness statements indicated there were 16' waves in the

Mississippi River which, incidentally, according to the same report rose 12½ feet in 4½ hours.)

No specific preparations had been made to house this emergency type evacuee. However, the Commanding Officer decided to "take them in", rather than turn them away, as long as space was available.

Immediate identification of vacant warehouse areas was established, and the volume of wet, semi-shocked and frightened humans were led up the dark stair wells into the unlit warehouse areas. There was no electrical power at this point. This original action was a "get them out the weather and give them a blanket" move, as opposed to assigning them to a pre-established shelter area. The evacuees were arriving by the hundreds and there was little, other than what was done, that could have been done at the time.

This ingress took place all through the night, and at daybreak, 10 September 1965, a heliport was opened in the main parking lot area, which provided a center for helicopters that were being utilized to rescue people from roof tops in the flooded areas. These helicopters poured an endless stream of evacuees into the Base throughout the daylight hours of the 10th and 11th.

It was estimated, based upon a pre-storm evaluation made, that the Base could temporarily house approximately 5000 people. At 1200 hours on the 11th, it was estimated,based upon

the overcrowded conditions of the various shelter areas that a minimum of 5500 evacuees were in the Base. In a consultation with the Senior Army Officer on the Base, the decision was made to "close the gates" because of the capacity number on hand. Thousands of evacuees visited the front gate seeking information on relatives, friends, etc. A broadcasting system was established through the PA System to announce such inquiries.

The problem of feeding the thousands of evacuees was accomplished by combining the limited staffs of the Officers' Open Mess and the Post Restaurant, and augmenting this staff with volunteer help from the evacuee population. Food was provided from local inventories until supplies were exhausted. The American Red Cross had guaranteed payment for same. When the local supply was exhausted, it was necessary, at the peak of activities, for representatives of the Army Base to, in effect, commandeer foodstuffs from the Red Cross Center downtown.

An internal system of control was established which provided that the evacuees would be fed in blocks - (each shelter area) - at a time. This system provided an orderly flow of people to and from the Post Restaurant area.

On 10 September 1965, the problem of drinking water almost became acute when the City of New Orleans Board of Health announced that until otherwise established, all drinking water in Greater New Orleans area was to be considered contaminated.

Immediate action was taken by Base personnel to congregate as many fresh water containers as available, such as, longshore barrels, large cooking pans, pots, and other vessels. Additionally, fresh water was obtained from the SS CRISTOBAL (Panama Canal Co.) which was moored at the Army Base wharves. All available containers were filled with water, chlorination was accomplished, and "good" drinking water was placed in strategic locations throughout the shelter areas.

One of the biggest problems experienced in the first 72 hour period, and prior to arrival of the Fort Polk support units, was the shortage of all types of Base personnel to house, feed, care for, and control the bulging number of 5500 evacuees. It was estimated that at the peak period there were not more than 90 officers, enlisted men and civilians, available to do the job around the clock. There are case histories where some of the Base personnel were on their feet 60 hours. Obviously, this set of circumstances dictated that some action be taken to obtain assistance, immediate, and long range. The long range requirements were placed with Commanding General, Fourth U. S. Army. The immediate assistance was accomplished through recruitment of volunteers from the evacuees. For example, during the heliport operation, there was a serious problem of evacuees running into the heliport to ascertain if their relatives were in "each load." The security guards available were too small in number, and too engrossed in other vital areas, to depend on to

maintain some semblance of order in the heliport area. Action was taken to recruit volunteers. These volunteers were "sworn in", given a temporary "OFFICIAL" badge of authority and given instructions. Within minutes, the situation was under control.

Sanitation and shelter cleanliness was established through a system of "help yourself" amongst the evacuees. Clean up crews were organized in each area and, with supervision from the Base personnel available, made an attempt to keep the sleeping areas in the "shelters" clean and sanitary.

In the midst of activities outlined above, information was received at the Command Post during the evening hours of 11 September 1965 that a Federal housing project within 1½ miles of the Terminal was flooded. Several inhabitants thereof swam out and made their way to NOARB. These individuals reported that approximately 1500 people were trapped by the water and needed food, milk, and similar items. The Army Base had almost concurrently received several truck loads of Red Cross food. Food and milk from this source were loaded on Base trucks which were dispatched to an unloading point, from which they were transported by small boats to the housing project. In addition, Base trucks were loaded with evacuees and transported to the Base shelter area. This operation continued throughout the night.

Let it be understood by the readers, that the small group of dedicated personnel who operated, controlled, and maintained the shelter, were literally sitting on a "keg of dynamite." Faced with

the awesome problem of housing, feeding, and medically caring for the evacuees until "help" arrived, the entire force was cognizant that they were equally faced with an explosive situation that could "blow" any second. Their decisions and actions had to be carefully calculated, because they were going to affect thousands of flood victims who were filled with hysteria, shock, grief, and the knowledge that they had lost their homes, their belongings, and in some cases their loved ones.

Action was taken in the afternoon of the 11th to obtain nuns from various convents and parochial schools throughout the city. Immediate response was received. Nuns were directed to the Base and were primarily used to distribute clothing; however, they were ultimately assigned to each shelter area to work with the wardens and maintain order. A Catholic Priest visited the Base and volunteered to celebrate Mass on the morning of the 12th.

On 11 September 1965, Major General K. L. Reaves, Commanding General, Fort Polk, was designated as Sector Commander, Hurricane BETSY, by Lt. General Colglazier, CG, Fourth U. S. Army. Fourth U. S. Army established headquarters here and designated two subsectors - one at Algiers Naval Station for 15,000 evacuees, and one at New Orleans Army Base for 5,000. Colonel Edward P. Ketcham, Jr. was designated subsector commander for New Orleans Army Base Shelter. Support units from Fort Polk, Louisiana, began arriving during the evening hours of 11 September 1965. These troops included field kitchens, medical teams, engineer troops, etc.

Immediate action was taken to have the field kitchens established, and the breakfast meal, 12 September 1965, was the first of the meals provided by the support units.

The following table reflects the approximate population in the shelter areas during the emergency, and the number of Base personnel available to operate the Base and shelter areas:

TIME	DATE	POPULATION	BASE PERSONNEL AVAILABLE
1800	9 September 1965	1500	90
0600	10 September 1965	3000	90
1800	10 September 1965	4000	90
0600	11 September 1965	5000	63
2400	11 September 1965	5500	63
0800	12 September 1965	4000	63
0800	13 September 1965	3500	173
0800	14 September 1965	2300	193
0800	15 September 1965	2100	218
0800	16 September 1965	2100	220
1200	17 September 1965	700	225

(d) Communications - Telephone Service. At 2200 hours, 9 September 1965, some local telephone trunks began failing, due to line damage and central office power failure and damage. At 2330 hours, outgoing telephone lines from NOARB were inoperable. Some incoming lines and Autovon lines were operating. No telephone company personnel were available to restore facilities due to the conditions prevailing throughout the city.

On 10 September 1965, restoral was still impossible due to central office equipment difficulty and line damage. The New Orleans Army Base telephone board incoming lines were in operating condition as well as the Autovon lines. During disaster operations, urgent requests were honored from the Mayor's office for patching calls through New Orleans Army Base board via Autovon to the Naval Station, Algiers; and the Naval Air Station, Alvin Callender Field because those installations had local line failure but their Autovon lines were workable.

The constant availability of Autovon lines enabled New Orleans Army Base to have contact with the outside environment at all times. The chief telephone operator maintained a constant alert on the Presidential Hot-Line between New Orleans Army Base, and LBJ Ranch and the White House during the President's visit in the event of receipt of an urgent message.

On 11 September 1965, two telephone company specialists were sent to New Orleans Army Base with a top restoral priority for substituting undamaged for damaged lines in the cable between New Orleans Army Base and the central exchange. This operation was not possible until this time due to severe conditions at the exchange. By 1200 hours several outgoing lines were available for "9" outdialing into the city. Five on-the-board outgoing lines were also available for assignment by the operator in important instances where the caller could not dial out.

A direct line disaster phone was installed in the Fort Polk Disaster Team's office to link the Mayor's Office,

Naval Air Station, Algiers Naval Station, and this Base on a single "off the hook" circuit. Additional instruments were installed for the team and in shelter areas.

Additional lines were restored on 12 September 1965 as telephone company central exchange equipment and lines became operable.

The American Red Cross Disaster Relief Headquarters was activated in Unit 1-5-A on 13 September 1965. Forty main lines off of the New Orleans Army Base board were ordered to be installed. The telephone company immediately dispatched a team of installers to complete the task before arrival of personnel.

Additional lines became available between 14 - 16 September although the system could not become 100% restored until underground cables had been repaired.

Communication Center. The STARCOM circuit failed completely at 2230 hours 9 September 1965. The radio teletype-writer circuit to Fourth U. S. Army was inoperable due to complete loss of the roof antenna system.

On 10 September 1965, Fort Leavenworth Midwest Relay Station had approximately 250 messages on hand which could not be cleared. On 11 September the telephone company was requested to substitute one teletypewriter line for a working voice line into the main office in order to provide communication center service. This was done and at 2030 hours contact was again made with Fort Leavenworth Midwest Relay Station. Traffic was being

cleared one-way only. The transmission line to Midwest Relay could not be restored at this time.

On 12 September 1965 the transmitting line to Midwest Relay Station was restored and both sides of the circuit were operable. All traffic was cleared by 0800 hours, 13 September.

Data Terminal. The data lines were down for approximately the same time as the Communication Center lines. Restoral was made at approximately 1000 hours, 12 September 1965.

(e) Supply - Approximately one thousand cots with mattresses and bedding were set up in various locations for possible use by evacuees. But as the number of evacuees steadily rose, additional space had to be made available and more bedding set up. This continued throughout the entire night of 9 September and on into 10 September until stocks of bedding were exhausted.

With the loss of electric power, flashlights and lanterns were issued to persons engaged in escorting evacuees to designated areas and persons issuing supplies, moving and setting up bedding.

At 1630 hours, 10 September 1965, two employees set up emergency operations in the Self Service Supply Center and worked around the clock issuing emergency supplies and medical items for the Dispensary.

Requests poured in for clothing and diapers as evacuees from flooded areas had left their homes without spare clothing or provisions for babies. There was no clothing or diapers available for these people. Sheets were torn in an attempt to provide diapers

but there were not enough to go around to all babies.

On 11 September, in response to our appeal, clothing and diapers began arriving from the Red Cross, various local department stores, and donations from private citizens. A clothing issuing point was set up with volunteer workers to sort and issue clothing. Troops from Fort Polk arrived on 11 September with sheets and blankets which were unloaded and distributed.

On 12 September, 1400 make up of beds were set up in warehouse areas so that evacuees could be transferred from the office areas.

Items such as janitorial supplies for military clean-up details; desks, chairs, and office equipment for Red Cross personnel; repair parts for Louisiana National Guard; gasoline, lube oil, and diesel fuel for Fourth Army, Ft. Polk, and La. National Guard personnel; and fans for evacuees were issued on a continuing basis throughout the time of shelter operation.

(f) Equipment - Vehicles and personnel of Equipment Division, New Orleans Army Base, were utilized to: transport doctors, nurses, nuns, chaplains, volunteer workers, medical supplies and equipment; and to load and deliver food to flood areas at Desire Street, and Florida Avenue housing projects. Vehicles were also used to evacuate victims from those areas to shelter areas at New Orleans Army Base.

(g) Plant Maintenance - Plant maintenance during the shelter operation consisted mainly of mopping up water being

blown in by winds; installing water coolers for evacuees; making inspections of wharf and units for damage; repairing doors blown off by winds; repairing plumbing; making emergency repairs to roofs; removing fans and hoods that were blown loose; and replacing broken glass.

(h) Security - The entire Department of Defense Police Force was placed in emergency operational status with tours of duty set at 16 hours on and 8 hours off as consistent with operational necessity and physically possible from the standpoint of the individual policeman's personal loss and availability due to hurricane conditions.

Individuals were deputized as Shelter Wardens to serve in the various evacuee shelter areas as designated by the Base Commander. These Shelter Wardens were chosen from among the evacuees themselves, with duties as required to maintain sanitary conditions, assist in disciplining the shelter area, and to generally take care of the best interests of the evacuees in their area of jurisdiction.

The Security Branch office was designated as NOARB shelter central coordination office for all matters of physical security interest connected with Base operation as well as Base shelter operation. The activities of Military Police personnel, Scheuering Detective Agency personnel, shelter warden personnel, Criminal Investigation personnel, Counter-Intelligence Corps personnel, Federal Bureau of Investigation personnel, and other

local civil and federal law enforcement agencies were coordinated as necessary.

Security patrols, stationary posts and security escorts were organized, maintained and monitored as deemed necessary in the best interests of a positive physical security posture as dictated by the ever changing situation.

A radio net throughout the Base physical security force was set up to include, in part, the following: Security Officer, Department of Defense Police Supervisors, Guard Tower, Burgundy Street Gate, Military Police Desk Sergeant, various roving patrols, various stationary posts, and various escort details.

Traffic control of personnel and vehicles was maintained throughout the operation to include, continual clearance of three operational heliports, the facility for location of lost or misplaced personnel housed within the Base shelter and called for by persons outside the Base, policing chow lines, policing entertainment gatherings, policing shower areas, policing shelter areas, minute inspection of packages carried into or taken out of the Base, and such clearing of stevedore working areas as necessary to facilitate cargo operations immediately after the passing of the hurricane.

(i) Medical - The Dispensary maintained a 24-hour vigil, caring for patient refugees that had been taken in by the New Orleans Army Base. As the number of refugees increased, it

was decided that we should ask for help from Fort Polk and a meeting was called by Colonel Edward P. Ketcham in the Dispensary to decide what support would be needed in maintaining medical, feeding, shelter and sanitary facilities for approximately 5000 refugees. It was recommended by the Command Surgeon that one physician per thousand, or five physicians, with supporting pharmaceutical, x-ray and laboratory personnel, were needed to care medically for this number of refugees. Considering one military physician was already here, a request was made for four additional physicians and the above mentioned support. This request was made to Fort Polk in the early morning hours of 11 September 1965. During the interval of the beginning of Operation BETSY to the arrival of the support from Fort Polk at 2100 hours, 11 September, care for the refugees was given by New Orleans Army Base Dispensary personnel, volunteer physicians from Charity Hospital, Senior Medical Students from LSU, volunteer nurses, and nursing students from Charity Hospital. On the arrival of the support from Fort Polk, 12-hour shifts were begun by the military physicians, (i.e., two physicians from 2100 hours to 0900 hours and three physicians from 0900 hours to 2100 hours). The number of refugee patients had increased markedly before the arrival of the Fort Polk support and the aid was welcome and needed relief. This 12-hour cycle was maintained throughout Operation BETSY until the morning of 17 September 1965. At this time, all supporting medical elements and personnel were transferred to the Algiers Naval Station.

During Operation BETSY 1509 patients were seen by physicians in consultation. Many refugees with minor ailments were triaged and given symptomatic care at first triage station. No record was kept of the number of patients so treated. Our biggest patient load was during the days of 11 through 16 September 1965. This coincided with our maximum refugee population. Other functions performed by the Dispensary included 15,655 immunizations, 27 diagnostic x-rays, 1100 prescriptions, 75 laboratory procedures and 14 electrocardiograms. An additional function of the Dispensary was supplying ready-made infants' formulas, baby food, and diapers brought to the Dispensary by Fort Polk and the Red Cross. Again, there is no estimate for the amount of infant food provided.

(j) Civil Defense - There was practically no coordination with Civil Defense officials from 1900 hours, 9 September 1965, through the next forty-eight hours because communications were out. Sometime during the evening of 11 September 1965, a "ham operator" with a short-wave radio equipped pick-up truck was assigned to the Army Base to establish radio communcations with Civil Defense Headquarters.

(k) Red Cross - At 1130 hours, 13 September 1965, the Clothing Distribution Center, New Orleans Army Base, was established in Unit 1-5-A headed by Mrs. Edward P. Ketcham, Jr.

At 1300 hours a group of approximately twenty Sisters from St. Joseph Academy reported in to assist with clothing

distribution, in accordance with Chaplain Richards and a St. Joseph Priest volunteering assistance. At 1500 hours, some Dominican Sisters arrived to assist, and later nuns from other convents arrived.

At 1915 hours, 13 September 1965, the American Red Cross Disaster Relief Headquarters was activated and located in Unit 1, 5th Floor, Section A, New Orleans Army Base. Concurrently, responsibility for the volunteer nuns was transferred to the Red Cross. Approximately forty Sisters reported to the Red Cross.

The Red Cross representatives were principally involved in arranging for clothing issues, bedding, and overall control of the needs of the particular evacuees in their shelter areas, including medical requirements, fresh drinking water, and such items of necessity.

(1) Other - The charitable spirit of the personnel of the New Orleans Army Base and Gulf Outport, EAMTMTS, during the disaster is commendable. Many remained on duty despite the fact that they did not know where their families were or if they had weathered the storm and flood. Many of these individuals suffered total loss of property from flood damage. They voluntarily carried beds, mattresses, and sheets, etc. up six flights of stairs when electrical power failed.

They worked around the clock registering, assigning, and escorting evacuees to designated shelter areas, making up

beds, moving beds to shelter areas, loading and unloading trucks entering and leaving the Base with food, beds, mattresses, clothing, etc.

They also assisted nuns and Red Cross personnel in shelter areas, helped evacuees, located parents of children who became lost, assisted evacuees in need of emergency medical treatment to New Orleans Army Base Dispensary, and policed and patrolled areas to assist in maintaining order in shelters. A locator system was established to locate military and civilian personnel who had been residing in distressed areas and had not reported for duty. All personnel were eventually physically accounted for.

Of noteworthy significance was the fact that no casualties resulted at the New Orleans Army Base Shelter Area during its existence in spite of the many hazards involved, such as, electrical power failure, unhealthful condition of the evacuees upon their arrival from flooded, infested areas; many of whom were so violently separated from their much needed medications. This can be contributed to the high degree of therapeutic efficacy displayed by the medical personnel of the New Orleans Army Base Dispensary during the first 48 hours after the evacuees arrived and subsequent support in personnel, drugs, instruments, vaccines, etc. provided by the Surgeon, Fort Polk Provisional Support Command Group.

IV. POST STRIKE -

(a) General - The New Orleans Army Base Shelter officially closed at 1200 hours, 17 September 1965. With the departure of the evacuees and transfer of the support troops to Algiers Naval Station, the attention of the personnel of the New Orleans Army Base could now be turned from the care of evacuees to the clean-up and restoration of the installation to a "Pre-BETSY" status.

(b) Command and Control - Subsector Command - Operation BETSY, New Orleans Army Base, was closed effective 1200 hours, 17 September 1965. The basis for closing was all evacuees had been transferred to Algiers Naval Station or departed New Orlean Army Base. Normal operations of the Base and the Gulf Outport were resumed concurrently. Policing and clean-up of shelter areas was initiated immediately after closing.

(c) Communications - As of 22 September 1965, the telephone company was continuing to provide restoral of all telephone facilities at the New Orleans Army Base, and expected to complete restoral shortly.

(d) Supply - Plant Maintenance Division was contacted to ascertain the type and number of contracts required to repair possible damages to the plant and utilities. Action was taken to prepare for increase in number of procurement actions and coordination was effected with Office Services Branch for reproduction support.

All personnel were alerted for emergency procurement actions and routine matters were set aside as required. Emergency procurements were effected for fuel, drugs, electrical supplies, communications equipment, laundry service, rope, roofing materials, glass and hardware. Difficulties were experienced when placing orders due to inoperation of vendor's telephones, inability of vendors to supply items due to damage sustained by their establishments and lack of electrical power servicing them. Much difficulty was experienced in placing orders for gasoline as electrical pumps necessary to fill transport trucks were inoperative at most of the bulk plants.

A contract was negotiated on an emergency basis to replace the air conditioning cooling towers on Units 1 and 3. Contract was awarded on 16 September 1965 for this work at a price of $22,919.00.

Other tasks were necessary, such as, fabricating and issuing 20 lines for moving barges; obtaining emergency repair parts for an auxiliary generator from Fort Polk; assisting Red Cross in receiving, unloading and storing donated foods; and issuing 225 cots for use by Civil Defense in Venice, Louisiana.

When the evacuees were transferred to another shelter area the task of collecting beds, cots, mattresses, blankets, pillows and soiled linen began. As military personnel from Fort Polk collected soiled linen and blankets, they were brought to the collection point in Unit 2, Fourth Floor, Section B, New

Orleans Army Base, where they were segregated, counted into bundles of 25 or 50 and placed in receptacles for delivery to the laundry. As of 23 September, four thousand sheets had been laundered and returned to stock. This project will continue until the balance of sheets, totaling several more thousands, as well as blankets, mattress covers, pillowcases, etc. have been cleaned and returned to stock.

(e) Equipment - All equipment was returned to its normal location; signs were rehung; and shops and motor pool areas cleaned.

An inspection was conducted of excess vehicles awaiting disposition instruction and vehicles awaiting salvage disposal at Jackson Barracks Storage Area. All of these vehicles were completely under water for 6 to 8 days. Excess serviceable vehicles will be given full technical inspection to determine condition, and action to be taken.

A program has been established to inspect all vehicles assigned to the Motor Pool that operated in flood areas. All wheels will be pulled to remove contamination from wheel bearings, cylinders and brakes. Chassis and bodies must be washed thoroughly to prevent deterioration of metal and other components of vehicles due to salt water contamination.

(f) Plant Maintenance - In order to restore the installation to its "Pre-BETSY" status, the following plant maintenance actions were necessary: Inspection of the entire installation; emergency repairing of the skylights on the wharf;

cleaning debris from the air conditioning towers on roofs; making up extra garbage boxes; hauling garbage; repairing plumbing; preparing foundations for new air conditioning cooling towers; preparing plans and specifications for repair of roof of connecting bridges; and preparing specifications for janitorial contract to scrub floors, walls, and stairwells soiled by evacuees.

(g) Security - Department of Defense Police Force returned to normal operations as of 2300 hours, 17 September 1965. Heliports were closed out effective 0945 hours 21 September 1965. An inspection of all evacuees and their personal effects was conducted prior to their departure and all Government property and other unauthorized items were confiscated.

(h) Medical - On 17 September 1965, the refugee census had decreased considerably, therefore, the number of patients was small. During the day Dispensary personnel began cleaning and reorganizing the emergency room, treatment rooms, pharmacy and utility room to begin normal operations 20 September 1965. Evaluation of the number of sterilized instruments, number of drugs in stock, and readiness of the emergency room and treatment rooms for routine patients was made and appropriate action initiated.

(i) Red Cross - The Red Cross Disaster Relief Headquarters is continuing operations at New Orleans Army Base to provide food, clothing, and other necessities to victims of hurricane BETSY.

(j) Support - The Commanding General, 4th U. S. Army and the Commanding General, Sector Command, Operation BETSY, visited New Orleans Army Base on 24 September 1965, and discussed post Operation BETSY actions related to support.

V. CONCLUSIONS -

This installation (New Orleans Army Base) composed of three concrete buildings proved its worth as a shelter area during Hurricane BETSY. This was a killer hurricane, and from the standpoint of destruction and economic loss it was the most devastating in history. This hurricane ranks as one of the major natural disasters of all time.

All possible preparations were made prior to Hurricane Strike period. Damage sustained by buildings and equipment at this installation could not have been prevented due to fury of this hurricane. Preparation time was reduced when the hurricane veered suddenly taking a direct course toward this area at approximately 1400 hours. Simultaneously, the forward speed increased to 18-22 miles per hour. Personnel, supplies and equipment at the Base were insufficient and inadequate to cope with this killer hurricane or even a storm of much lesser intensity.

The military and civilian personnel of New Orleans Army Base and Gulf Outport gave outstanding performances throughout entire operation, especially the 90 personnel who were on duty around the clock for the first 72 hours of the emergency.

Considering the short time available to organize and move 4th Army support units to New Orleans, they also made an outstanding contribution in the support of hurricane victims at the New Orleans Army Base. The greatest deficiencies at the Base

were in the areas of sanitation and labor. Reliance on volunteers from the evacuees cannot be totally depended upon and must be supplemented by resources from the support units whenever the system of volunteers and self help is not responsive. Until the volunteers could be organized at this Base there were delays in unloading the supplies, as well as cleaning up the shelter areas. In anticipation of this, support units should be prepared to function on a self-sustaining basis and to back up the volunteer organization in the shelter area as deficiencies occur.

VI. RECOMMENDATIONS -

(a) That responsible Civil Defense agencies be prepared to take action to insure sufficient resources are assigned to designated shelter areas during the "Pre-Strike" period to perform functions indicated in Appendix I.

(b) That responsible Civil Defense agencies, in anticipation of natural disasters, take action to cache supplies and equipment at strategic locations. Caches should be located to permit delivery to any given point within 24 hours. A suggested list of items are outlined in Appendix II.

APPENDIX I

NECESSARY FUNCTIONS

Set Up Necessary Facilities to Receive Refugees

Register Refugees and Assign Them to Specific Areas

Control Movement of Refugees Within Shelter Areas

Food Service

Garbage Disposal

Maintain Shelters in Sanitary Condition

Provide Security of Entire Shelter Area

APPENDIX II

NECESSARY SUPPLIES AND EQUIPMENT

Buses

Trucks - 2½ Ton S&P

Trucks - 2½ Ton Amph. Dukws or Lark V Vehicles

Truck - Gasoline Tanker

Rations

Reserve Drinking Water

Beds - Cots

Mattresses

Sheets

Blankets

Diapers

Sanitary Napkins

*Portable Showers

Portable Kitchens

Portable Sanitary Latrines

Auxiliary Generators - 2 KW to 10 KW

Medical Supplies

Medical Equipment

Air Conditioning Units

Heaters

Searchlights - Flash Lights

Flood Lights

Exhaust Window Fans

*Shower units should have sufficient soap and towels to supply to refugees.

ANNEX I - ORGANIZATION

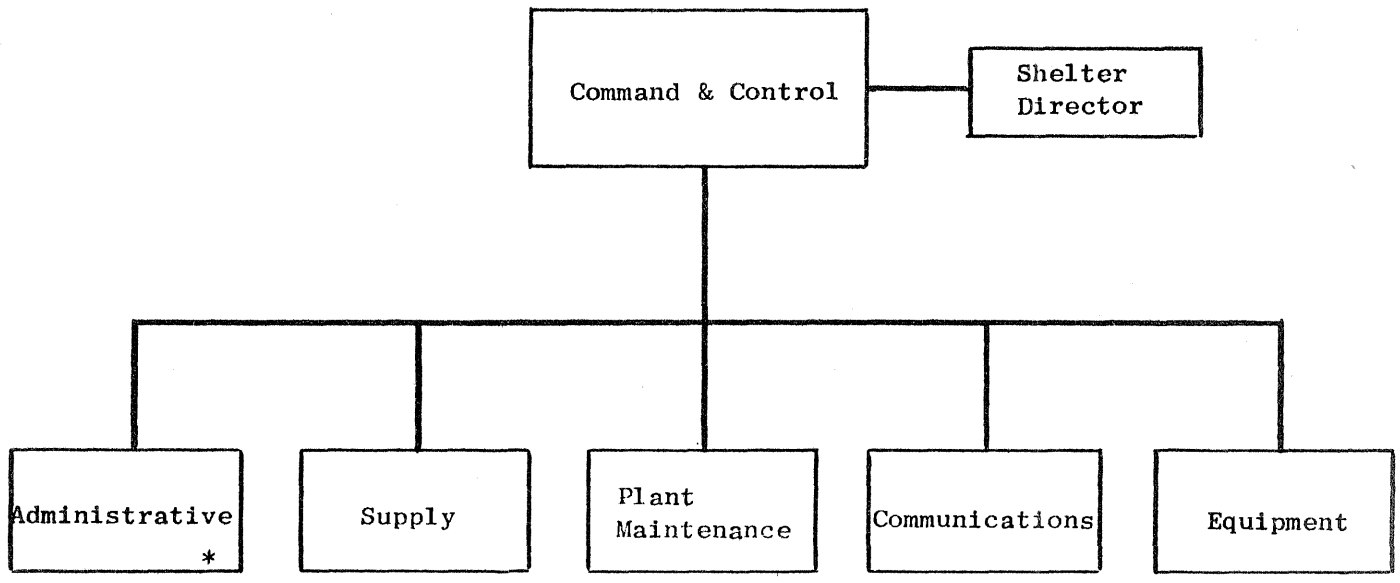
(a) Pre-Strike - New Orleans Army Base

(b) Strike - New Orleans Army Base

(c) Subsector Command - Operation Betsy - New Orleans Army Base

ANNEX I(a)

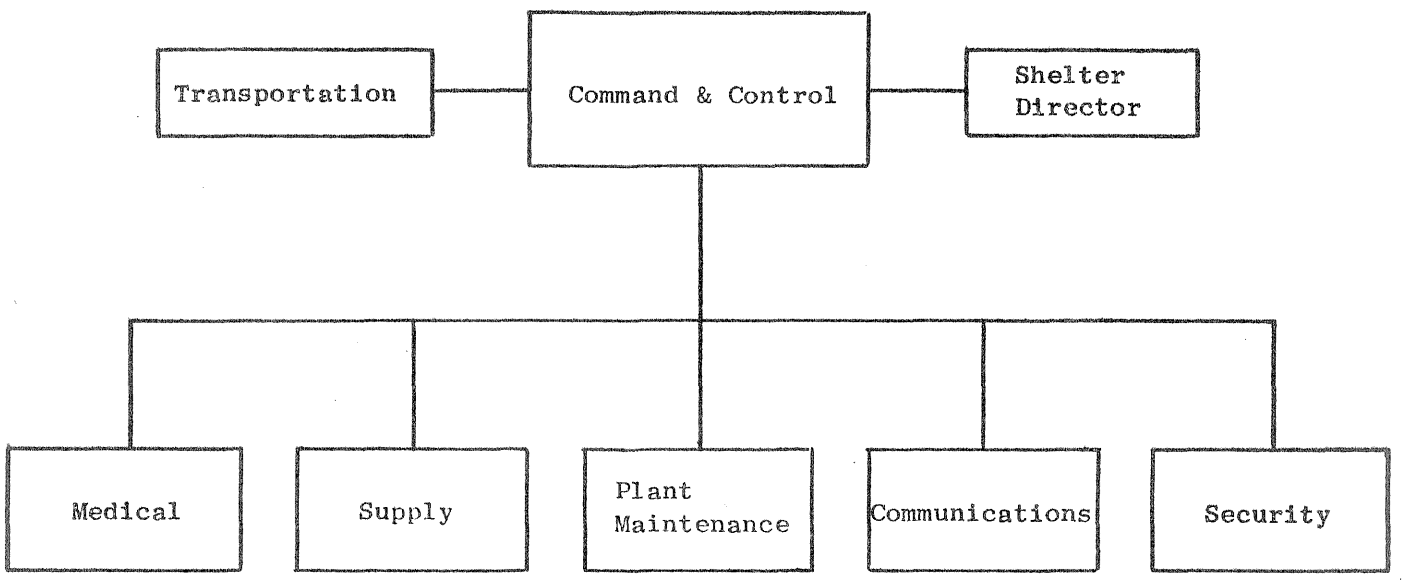
ORGANIZATION - PRE-STRIKE - NEW ORLEANS ARMY BASE



*Includes Medical & Security

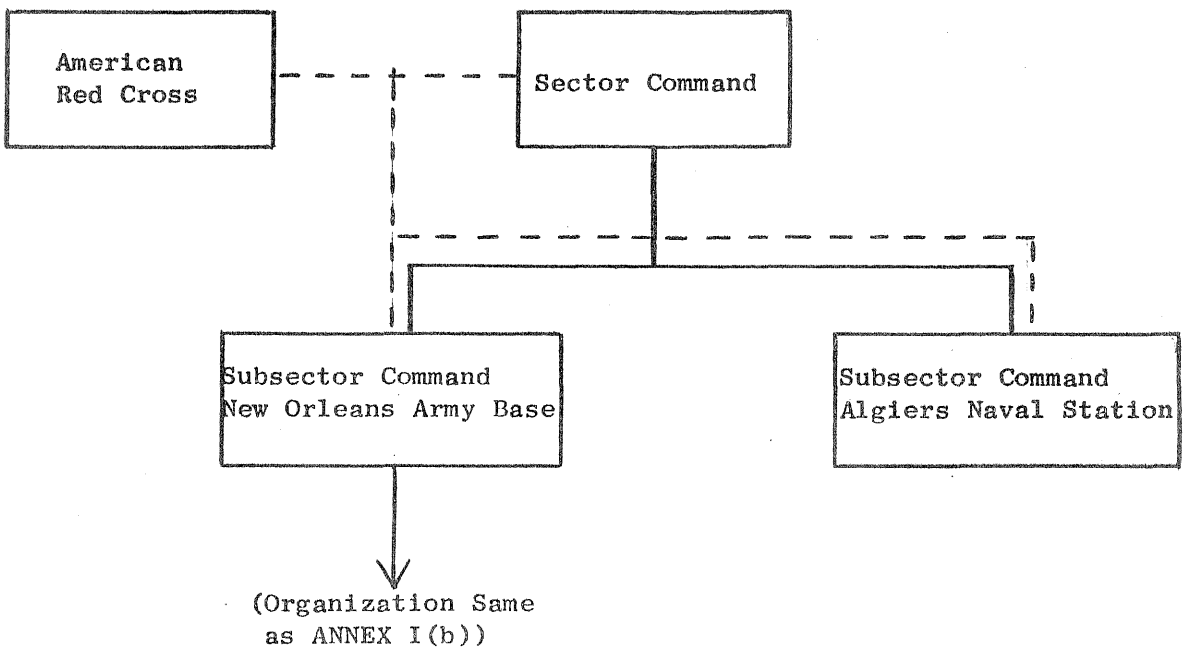
ANNEX I(b)

ORGANIZATION - STRIKE - NEW ORLEANS ARMY BASE



ANNEX I(c)

ORGANIZATION - SUBSECTOR COMMAND - OPERATION BETSY



ANNEX II - PRESIDENTIAL COMMENDATION

From Lieutenant General Colglazier for Major General Reaves

The following is the text of message received telephonically from HQ United States Fourth Army (12 Sep 65). The message will be transmitted to Ft Polk and this Headquarters.

I have received the following message from the President of the United States.

"The entire Nation, and particularily the people of Louisiana are extremetely grateful to you and the men of the United States Fourth Army Area for all the assistance you have given to those in Louisiana who are suffering and in need of help as a result of the ravages of Hurricane Betsy. I want you to know that your President recognizes and appreciates the outstanding way in which you have responded to this difficult challenge. You and the men under you are a tribute to this nation and to the United States Army."

This message is really meant for you and your men whose unselfish devotion to duty and continuing effort has been of such material assistance to the stricken people of Louisiana.

Please give the Presidents message the widest dissemination, especially to the members of your task force.

VV CMA949XMB183

RR RUCMGT

DE RUWFC Ø41A 2562223

ZNR UUUUU

R 132155Z ZEX

FM CGUSARMYFOUR FTSAMHOUSTON TEX

TO RUCMGT/CONART NRLNS

RUCAPB/COUSACMLARSENAL PINEBLUFF ARSENNL ARK

RUCMUJ/CO SANDIA AFB NMEX

RUWFZJ/DIVENGR USAENGRDIV SOWEST DAL

RUCMUE/DISTENGR USAENGRDIST ALBUQUERQUE NMEX

RUWFZK/DISTENGR USAENGRDIST FTW

RUWFMA/CO ARADMAC USNAS CORPS

UNCLAS 413185 AKACS

1. I HAVE RECEIVED THE FOLLOWING MESSAGE FROM THE PRESIDENT OF THE UNITED STATES:

"THE ENTIRE NATION, AND PARTICULARLY THE PEOPLE OF LOUISIANA ARE EXTREMELY GRATEFUL TO YOU AND THE MEN OF THE UNITED STATES FOURTH ARMY AREA FOR ALL THE ASSISTANCE YOU HAVE GIVEN TO THOSE IN LOUISIANA WHO ARE SUFFERING AND IN NEED OF HELP AS A RESULT OF THE RAVAGES OF HURRICANE BETSY. I WANT YOU TO KNOW THAT YOUR PRESIDENT RECOGNIZES AND APPRECIATES THE OUTSTANDING WAY IN WHICH YOU HAVE RESPONDED TO THIS DIFFICULT CHALLENGE. YOU AND THE MEN UNDER YOU ARE A TRIBUTE TO THIS NATION AND TO THE UNITED STATES ARMY."

2. I PERSONALLY ADD MY COMMENDATION TO THAT OF THE PRESIDENT'S AND EXPRESS MY APPRECIATION TO ALL OF THE PERSONNEL WHO HAVE SO DILIGENTLY RESPONDED TO THE SUPPORT AND RESCUE OPERATIONS IN THE STATE OF LOUISIANA.

3. PLEASE GIVE THE PRESIDENT'S MESSAGE THE WIDEST DISSEMINATION POSSIBLE.

ANNEX III - OTHER COMMENDATIONS

EIGHTY-NINTH CONGRESS

L. MENDEL RIVERS, S.C., CHAIRMAN

PHILIP J. PHILBIN, MASS.
F. EDWARD HÉBERT, LA.
MELVIN PRICE, ILL.
O. C. FISHER, TEX.
PORTER HARDY, JR., VA.
CHARLES E. BENNETT, FLA.
JAMES A. BYRNE, PA.
SAMUEL S. STRATTON, N.Y.
OTIS G. PIKE, N.Y.
RICHARD H. ICHORD, MO.
LUCIEN N. NEDZI, MICH.
ALTON LENNON, N.C.
WILLIAM J. RANDALL, MO.
G. ELLIOTT HAGAN, GA.
CHARLES N. WILSON, CALIF.
ROBERT L. LEGGETT, CALIF.
DONALD J. IRWIN, CONN.
JED JOHNSON, JR., OKLA.
FRANK E. EVANS, COLO.
RODNEY M. LOVE, OHIO
FLOYD V. HICKS, WASH.
HERVEY G. MACHEN, MD.
SPEEDY O. LONG, LA.
E. S. JOHNNY WALKER, N. MEX.

SANTIAGO POLANCO-ABREU,
PUERTO RICO

WILLIAM H. BATES, MASS.
LESLIE C. ARENDS, ILL.
ALVIN E. O'KONSKI, WIS.
WILLIAM G. BRAY, IND.
BOB WILSON, CALIF.
CHARLES S. GUBSER, CALIF.
CHARLES E. CHAMBERLAIN, MICH.
ALEXANDER PIRNIE, N.Y.
DURWARD G. HALL, MO.
DONALD D. CLANCY, OHIO
ROBERT T. STAFFORD, VT.
RICHARD S. SCHWEIKER, PA.

HOUSE OF REPRESENTATIVES
COMMITTEE ON ARMED SERVICES
ROOM 2120-2121 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, D.C.

JOHN R. BLANDFORD, CHIEF COUNSEL
PHILIP W. KELLEHER, COUNSEL
FRANK M. SLATINSHEK, COUNSEL
WILLIAM H. COOK, COUNSEL
EARL J. MORGAN, PROFESSIONAL STAFF MEMBER
RALPH MARSHALL, PROFESSIONAL STAFF MEMBER
ONETA L. STOCKSTILL, EXECUTIVE SECRETARY

September 22, 1965

Colonel Edward Ketcham, Jr., USA
Commanding Officer
U.S. Army Terminal
New Orleans, Louisiana 70140

Dear Colonel Ketcham:

The House Committee on Armed Services, on Tuesday, September 21, 1965, unanimously approved a motion commending the various Military Departments and their Reserve Components, the Coast Guard, and the National Guard, on their effective efforts to assist the unfortunate victims of Hurricane Betsy, which struck the State of Louisiana on the 9th and 10th of September, 1965.

The timely and effective assistance rendered by the Uniformed Services prevented a catastrophic loss of life in the areas devastated by Hurricane Betsy. This assistance included the evacuation of thousands of civilians along with the provision of emergency housing, food, clothing, and medical care.

The Members of the Committee on Armed Services are immensely proud of the dedicated men and women who demonstrated once again their unique ability to perform in an outstanding manner in time of peace, as well as in time of war.

I wish to express my personal gratification on the outstanding contribution made by your Department.

Sincerely yours,

L. Mendel Rivers
Chairman

LMR:fss

TREASURY DEPARTMENT
UNITED STATES COAST GUARD

Address reply to:
COMMANDER (osr)
8TH COAST GUARD DISTRICT
CUSTOMHOUSE
NEW ORLEANS, LA. 70130

3100
SEP 24 1965

From: Commander, Eighth Coast Guard District
To: Commanding General, New Orleans Army Terminal

Subj: Appreciation for Services

1. During the recent disaster created by the passing of hurricane Betsy, the use of helicopters was a prime factor in the saving of lives and replenishment services during the aftermath. Materially adding to the effectiveness of this operation was the availability of the helicopter pad at your command.

2. At this time may I express my sincere appreciation to you and the members of your command for the availability and use of the helicopter pad and for the invaluable service provided.

J. D. CRAIK

Keep Freedom in Your Future With U.S. Savings Bonds

HEADQUARTERS FOURTH UNITED STATES ARMY
OFFICE OF THE COMMANDING GENERAL
FORT SAM HOUSTON, TEXAS

30 SEP 1965

Colonel Edward P. Ketcham, Jr.
Gulf Outport
Eastern Area
Military Traffic Management and Terminal Service
New Orleans, Louisiana 70140

Dear Colonel Ketcham:

Earlier this month I forwarded to you a copy of a message which I received from The President concerning disaster relief operations in Louisiana. More recently I have received a personal letter from the Army Chief of Staff which referred to the same operation. His letter reads in part:

> "---and wish to add my personal thanks for the outstanding job that you and the members of your command have done in assisting the victims of Hurricane Betsy. The prompt response to this emergency and the personal interest and dedication displayed by all Army personnel are most commendable and a source of deep pride to all who have witnessed or followed the accounts of your fine efforts. Keep up the good work!"

Before the Fourth United States Army became actively engaged in disaster relief operations caused by Hurricane Betsy, you and your command had become involved in providing help and relief to the stricken people of New Orleans. In face of the problems that confronted you, you were able to provide unselfish support to Major General Reaves and his Task Force without which our relief operations could not have become effective as early as they did.

No one realizes better or appreciates more than I do the total responsiveness, untiring efforts, cooperation, and professional competence which characterized your assistance to me and members of my command during the weeks following the hurricane.

Colonel Edward P. Ketcham, Jr.

30 SEP 1965

Please accept my deepest gratitude for all that you and members of your command did to assist me in meeting my responsibilities in alleviating the effects of Hurricane Betsy. I add my own "Keep up the good work!" to that of the Chief of Staff of the Army.

Sincerely,

R.W. COLGLAZIER, JR.
Lieutenant General, U.S. Army
Commanding

THE AMERICAN NATIONAL RED CROSS
NATIONAL HEADQUARTERS
WASHINGTON, D.C. 20006

October 5, 1965

Colonel Edward P. Ketchum
Commanding Officer
Sub-Sector Command
Operation Hurricane Betsy
New Orleans Army Base
New Orleans, Louisiana

Dear Colonel Ketchum:

During the period 9 September through 13 September 1965 the demands on the resources and facilities of the New Orleans Army Base, to care for persons directly affected by Hurricane Betsy were unprecedented.

A population of New Orleans residents approximating some 5500 persons were housed, protected and fed most competently by government personnel not generally required to perform such services.

The following persons were included in this service; Arthur Riley, Victor Trager, Clarence Joyner, Isabel Winters, Albert Guichet, Sidney Pendergast, Elsie Steltz, Ruth Bundy, James Gleason Jr., J.A. Harrigan.

This accomplishment fully demonstrates the community spirit of service and response during emergency situations so necessary for the Red Cross and the community to fulfill its mission of aid and relief to our citizens.

The National staff of the American Red Cross in final appraisal of instant response to situation, gratefully recognize the highly outstanding performance of your Command.

Sincerely,

Robert F. Shea

Robert F. Shea
Vice President
American National Red Cross

ANNEX IV - POST SURGEON REPORT
U. S. ARMY HOSPITAL
FORT POLK, LOUISIANA

DEPARTMENT OF THE ARMY
HEADQUARTERS, U. S. ARMY HOSPITAL
Fort Polk, Louisiana 71459

AKPPO-SU 27 September 1965

Medical Support Provided to the New Orleans Area Following Hurricane 12-19 September 1965

I. GENERAL SUMMARY.

Hurricane Betsy hit the New Orleans area during the night of 9 September 1965 and left it about noon of 10 September 1965.

At 0510 hours, 11 September 1965, Colonel Stacy, Post Surgeon, Fort Polk, Louisiana, was directed by the Commanding General, Fort Polk, to contact Colonel Ketcham, Commanding Officer of the New Orleans Army Terminal and find out what medical help he needed. Colonel Stacy talked with Captain Weiland, Medical Officer, Terminal Dispensary, at 0530 hours. His requirements for personnel and supplies were established and he was assured that they would be sent down with minimal delay. He especially asked for baby formula to feed infants.

Colonel Stacy phoned the AOD at the U. S. Army Hospital, Fort Polk, and gave him the requirements; he was instructed to get the personnel and supplies ready as soon as possible.

At 0905 hours, 11 September 1965, Colonel Stacy departed Fort Polk by air in General Reaves' party and arrived at the New Orleans Army Terminal about 1100 hours. General Colglazier, Colonel Elliott, Colonel Helm, and Colonel Batch, Headquarters Fourth U. S. Army, were present and an initial briefing on the situation was conducted by General Colglazier.

General Colglazier and General Reaves departed for a meeting with Red Cross, OEP, city and other civilian officials at City Hall. Colonel Stacy and other staff members from Headquarters, Fourth U. S. Army, drove across the river to the Algiers Naval Station. It was planned to open a refugee center there for some 12,000 persons and the staff was to survey the facilities and make appropriate recommendations. Several large warehouses with cement floors, and some containing indoor toilets and single shower stalls were seen. In this warehouse area were several latrine buildings providing a certain number of commodes and wash basins. Several barracks were inspected and many of these had some toilet and wash facilities. The major problem that presented was to provide adequate numbers of latrines. The Naval Station is below river level and water is reached by digging almost six inches, so pit latrines could not be used. Portable chemical toilets were the solution. One hundred and seventy of these were provided initially from local resources and 150

were on standby to be moved in from Houston, Texas. It was determined by sheet guesswork that about 200 toilets would be required to adequately support the proposed population. Ultimately, 217 toilets were provided. Two portable shower units were called for and sent in to the Algiers Naval Station. Several hydrants were modified with adapters to provide a faucet outlet for the supply of water. Other hydrants had a length of hose attached which enabled water to be poured. Based upon the availability of chemical toilets, it was recommended that the Naval Station be set up as a refugee center.

At the New Orleans Army Terminal, some 5,000 refugees were crowded into several floors and parts of floors in the terminal buildings. On the whole, latrines, shower and wash facilities were marginally adequate. An additional shower unit was requested for the Terminal Refugee Center to augment existing facilities.

Sick call was held on a 24 hour basis at the Terminal Dispensary because refugees were moving in all the time. Diabetics who had not had insulin, epileptics who had been off medication, minor cuts, bruises and scratches, as well as cardiacs and feverish, restless children, comprised the bulk of the patient load. Many patients needed reassurance and someone to talk to. Twenty-four hour staffing and coverage was possible with the basic personnel of the Terminal Dispensary augmented by four doctors, two nurses, four nursing assistants (911.3), one laboratory technician, two pharmacy technicians and two x-ray technicians. In addition, Charity Hospital provided 12 to 15 student nurses in eight hour shifts to work in the dispensary and up on the floors where they serviced the large numbers of refugees for illness. Fort polk provided two ambulances with drivers to help evacuate patients to the hospital. The Naval Station dispensary at Algiers with four doctors, two nurses, and about 18 corpsmen, was augmented by doctors from the U. S. Public Health Service Hospital and volunteer nurses and student nurses, and they maintained 24 hours service. The workload was much the same as at the Terminal Dispensary except that the Naval Dispensary expanded to a 70-bed holding hospital where supervisory care could be given. Ultimately, the Terminal Dispensary set up 30 beds for holding and supervision of patients who were not emergent or sick enough to be admitted to a hospital, yet they needed medical supervision. Any seriously ill patient (cardiac decompensation, vaginal bleeding with pregnancy, etc.) or imminent delivery, was transferred to Charity Hospital. Dependents of military, retired military, etc., were hospitalized at the U. S. Public Health Service Hospital. Sick children with high fever, severe diarrhea, possible pneumonia, etc., were also hospitalized. Some chicken pox and measles cases were seen. Ambulances from Fort Polk were provided at Algiers to help in evacuation of patients to the hospital.

Catholic Sisters of nursing, teaching, and other orders all volunteered their help and provided great numbers to help mothers with small children; organize and occupy the time of children, etc.

Sanitation of the living areas at both centers was a constant, critical problem. Paper, waste, food droppings, etc., were spilled at meal times and all day long. Refugee personnel were reluctant to clean up their mess. Colonel Ketcham at the Terminal Center had designated the Veterinary Officer to be in charge of sanitation. He and the Engineer supervised pickup and removal of garbage and trash and outdoor police. Some Terminal civilian clean-up employees and a few military personnel were used for cleaning up. Prior to the arrival of the field messes to provide hot meals, refugees at the Terminal Center were fed in the Terminal cafeteria. This was a six to eight hour procedure and had been going on from Friday, 10 September 1965 to Monday, 13 September 1965. The cafeteria had not been properly cleaned because of constant use and threatened to become a severe health hazard.

It was decided that medical enlisted personnel would be assigned to each floor or parts of a floor where heavy personnel concentrations existed in order to supervise sanitation, ventilation, and keeping the place clean and livable. Accordingly, a sanitary team of six medical corpsmen was sent from Fort Polk on Sunday, 12 September 1965. These men were turned over to Lt. Nielsen, Veterinarian and Sanitarian, who used three to clean up the cafeteria and the rest to supervise cleaning of floors in the Terminal buildings.

On Saturday night, 11 September 1965, all water in New Orleans was declared potable. This eliminated the need for treatment and Engineer water points. On Saturday night Colonel Stacy ascertained from the Red Cross representative that the City Health Officer had decided that typhoid immunizations would not be given. On Sunday afternoon, 12 September 1965, Colonel Stacy contacted the City Health Office at City Hall. Dr. Jung, Cith Health Officer, was not available but his assistant was. Colonel Stacy discussed the matter and asked that a decision be made. Dr. Jung felt that if shots were given and anyone came down with typhoid, diagnosis would be difficult. Colonel Stacy felt that people would be going to heavily contaminated areas and would need protection which should be given now. Dr. Jung's office called Colonel Stacy later in the evening and informed him that typhoid could be given at the discretion of the doctor. It was decided to give typhoid shots in the Terminal and Algiers centers. Tetanus toxin and toxoid had been given on a need basis and this was continued. Typhoid vaccine for 20,000 injections and 800 tetanus innoculations were obtained from Fort Polk. Vaccine was sent to Algiers to do 10,000 personnel. The Louisiana National Guard asked for and received 2,500 doses of typhoid vaccine and 500 doses of tetanus toxoid.

On Monday, 13 September 1965, it became apparent that a Preventive Medicine Officer was needed, so Colonel Stacy placed a requirement on the Fourth U. S. Army Surgeon for a Preventive Medicine Officer or a Sanitary Engineer, or an experienced MSC who could work in this situation, and a Preventive Medicine noncommissioned officer. Captain Daubel, Sanitary Engineer, and Sergeant Beauregard, Preventive Medicine NCO, were sent in from Fort Sam Houston. They made a survey of the Terminal Refugee Center and established the need for more "sanitarians" (enlisted medical corpsmen). Fifteen more medical corpsmen were sent in from Fort Polk. A survey of the Algiers Refugee Center established the need for "sanitarians" to supervise buildings there. The total of 21 sanitarians were split with 11 staying at the Terminal and ten going to the Algiers Naval Station. Lt. Feast, Engineer at the Terminal, was also provided with a work detail of 10-15 non-medical enlisted men to help in clean-up work. Captain Daubel worked at the Algiers Center and surveyed and supervised the sanitary aspects of the operation.

A problem with flies and odor because of ground contamination resulting from food spillage occurred. Captain Daubel worked out an effective, non-toxic concentration of malathion which proved most effective. Wescodyne and other deodorant-disinfectant solutions were provided and used in mopping floors, washing latrines, etc. This minimized infection and reduced odor.

On Monday, 13 September 1965, some 400 people were housed in an unused building at the USPHS Quarantine Station, which is a few blocks south of the Algiers Naval Station. Also, Callender Field, New Orleans Naval Air Station, accommodated about 1,000 refugees in three modern, up-to-date military barracks buildings. Latrine and wash facilities were good at Callender Field but one shower unit was put in operation because one building was an office and classroom building and did not have adequate wash facilities.

On Tuesday, 14 September 1965, Major Faulconer, Operations Officer, U. S. Army Hospital, Fort Polk, came to New Orleans and became coordinator for Colonel Stacy in sanitation matters at the Algiers Center. His services were invaluable in handling the myriad details which arose.

Starting on Wednesday, 15 September 1965, the City Health Department arranged to have teams out composed of one physician and several medical students and a couple of nurses, who would give diphtheria-tetanus combined immunizations. All immunizations were on a voluntary basis but the population responded willingly and well.

On Wednesday, 15 September 1965, Colonel Stacy flew down the Mississippi River with General Reaves in a helicopter and surveyed the storm damage. Much flooding was still evident and many communities had been totally destroyed.

On Wednesday afternoon at about 1600 hours, Colonel Stacy was visiting Captain Brooks, Algiers Naval Station Surgeon. Captain Brooks mentioned that Dr. Jung and some of his assistants had visited the Algiers Station that afternoon and were very upset by the conditions they found. There were eight cases of infant diarrhea out of about 1,000 infants age two years and under and they were deeply concerned about an outbreak of infectious diarrhea. They also found overcrowding, insufficient water and general unsanitary conditions. Dr. Jung had asked that no more people be admitted to the Algiers Center which had about 8,500 population then. Colonel Stacy went to City Hall and had a 45-minute session with Dr. Jung and his associates. A meeting of minds was reached and all obligations and questions settled. It was especially important to have the cooperation and concurrence of the Health Department in all dealings. They were responsible for the medical activities of the Algiers Center and were preparing to take it over.

Colonel Stacy called General Reaves and discussed this turn of events. General Reaves was concerned because his rights had been abrogated and he was interested in moving all personnel out of the Terminal Center over to Algiers.

Dr. Jung agreed that we should move all 12 year olds and up first to prevent overcrowding and overexposure of infants to infection. Then we would see about the lower age groups. Age two years and under was considered the cut-off line and they were not to be moved until the Health Department attempted to find foster homes for them or move them into an orphanage which could handle them, or move them into a partially filled low rent housing project in New Orleans. In addition, additional water, wash tubs and baby bath tubs were to be procured by the Red Cross and/or other relief agencies.

On Thursday, 16 September 1965, movement from the Terminal Center to Algiers began. In order to get 600 persons, personnel down to age two years were moved with concurrence of the City Health Department. An adequate, clean, large warehouse was set up and prepared for them. Extra tubs, Lister bags and water were provided. On Friday, the remaining personnel were moved from the Terminal Center to Algiers. A beneficial factor in this move was the fact that the census at Algiers had dropped off and overcrowding was nonexistant.

On Thursday, 16 September 1965, the Health Department opened a 200-bed hospital in Behrman Gymnasium, a few miles north of the Algiers Center. This was for patients from city shelters who needed domiciliary care. Algiers provided a mess team to feed them but the patient census was never more than 40 and the mess team was withdrawn and feeding done by Marmite cans from a mess at Algiers.

On Thursday night, 16 September 1965, Mr. Grace and Mr. Burns, representatives of Regional Headquarters, OEP; Drs. Belsey and Yoder, City Health Department; Mr. Chestnut, local OEP; Mr. Cimbarra, a City Councilman; and a Red Cross representative, accompanied by Colonel Stacy, visited and inspected the Algiers Naval Station Center. General Reaves and Admiral Lyman met them and went on the tour. Many problems were discussed but chiefly how to modify the buildings and facilities to provide more water to facilitate hand washing and avoid the spread of contamination and threat of infectious diarrhea. It was decided to build outdoor wash benches similar to those formerly used by the Army and place these outside the buildings where infants were located. The wash benches could be hooked to a hydrant and the waste could drain off in plastic hose into the sewer. In addition, extra shower facilities would be built. Mr. Grace said that OEP would cost the project.

The next morning, Colonel Stacy met with Dr. Belsey and toured the entire Algiers facility with the idea of spreading out the infants to minimize infection. Dr. Belsey, who is with the City Health Department, found much room and little if any crowding. He agreed that all was in order and seemed pleased. A session was held with the Algiers Naval Station Engineer and plans were made for construction and location of the wash benches. Work was well under way for a shower unit in a building using the former truck loading ramps.

On Saturday, 18 September 1965, plans were made and concurrence of the City Health Department obtained to move about 200 people from the USPHS Quarantine Station to the Algiers Center. Plans were also formulated to move the Naval Air Station people to Algiers on Monday, 20 September 1965.

Throughout the operation, Fort Polk provided two ambulances to each center to help augment their evacuation capability. As the Terminal Center reduced in numbers, the ambulances were sent to Algiers to cover their needs.

Colonel Stacy departed the New Orleans area on Saturday, 18 September 1965, at about 1500 hours. Captain Brooks, the Eighth Naval District Surgeon, assumed the duties and responsibilities of Staff Surgeon for the operation in place of Colonel Stacy.

Major Faulconer and six enlisted men stayed on to supervise sanitation. Two ambulances remained at Algiers to support the Algiers Naval Base dispensary.

II. PERTINENT FIGURES.

Some interesting sick call figures are listed:

Army Terminal Center dispensary (9-17 Sep 65)

Total outpatient visits	1,509
Total immunizations	15,655
X-rays taken	27
Prescriptions	1,098
Laboratory studies	75
EKGs	14

Algiers Center dispensary (13-20 Sep 65)

Total outpatient visits	3,181
Typhoid immunizations	8,500
Tetanus-diphtheria immunizations	525
Total inpatients cared for	120

New Orleans Naval Air Station dispensary (12-19 Sep 65)

Total outpatient vistis	540

USPHS Quarantine Station (12-19 Sep 65)

Total outpatient visits	392

The Terminal dispensary had more walk-in business and the Terminal civilian personnel, while Algiers was not centrally located and saw fewer people.

Medical personnel from Fort Polk supporting the operation

Officers - 11		
US Army Hospital	4	1 MC
		1 MSC
		2 ANC
616th Cir Co	5	4 MC
		1 MSC
50th Helicopter Det	2	2 MSC
Enlisted personnel - 59		
US Army Hospital	6	
616th Cir Co	23	
91st Evac Hosp	17*	
602d Amb Co	8	
50th Helicopter Det	5	

*This figure includes six enlisted men at Napoleonville running two 30 KW generators to provide water.

One helicopter was present at the Terminal Center and was used to ferry personnel and supplies across the river to Algiers at a tremendous saving in time. The other helicopter was assigned to the District Engineer and was used in survey work.

The 91st Evacuation Hospital provided one shower unit with eight enlisted men at the New Orleans Naval Air Station.

III. UNUSUAL INCIDENTS.

There were two incidents involving male civilians posing as doctors which occurred at the Algiers Center dispensary. The first occurred on Wednesday, 15 September 1965. An individual appeared and offered his services as a physician in keeping with the policy of the Parish Medical Society and the City Health Department to provide volunteer physicians to cover shelters and dispensaries. His work was poor and he was uncertain in doing routine things. Upon questioning by a Navy physician working with him, he became flustered. He was taken to Captain Brooks' office where further questioning revealed he was not a physician. He was turned over to the FBI.

The second incident occurred on Thursday morning, 16 September 1965. An individual appeared in scrub suit, white coat and stethoscope and said he was a doctor and had come down to help out. Like the other individual, he was clumsy and did peculiar things. Questioning revealed he was an imposter. Actually, he was a tree surgeon.

A third incident worth reporting involved a female Red Cross volunteer worker who supervised three barracks buildings of refugees. She had them well organized and working to keep the buildings and themselves clean. During an inspection, she asked Colonel Stacy to help her get a pass. Colonel Stacy inquired of the Red Cross representative about a pass and when her name was mentioned, the Red Cross people were delighted to find her. She was a schizophrenic who had slipped away from her husband at the beginning of the hurricane and he had been trying to locate her. She was turned over to her husband.

Tulane University Department of Psychiatry started a behavior and sociological survey and study on the refugees to evaluate behavior and emotional actions and reactions before, during, and after the emergency.

IV. CONCLUSIONS.

The medical support of this operation by Fort Polk was adequate using the limited numbers of personnel indicated. The support was truly tailored to meet this situation. This was necessary because of the critical shortage of medical personnel and units. The Terminal Command dispensary was

well equipped and did not require amounts of equipment to be sent in as might have been the case in another situation.

The help of the local doctors, student nurses, Catholic Sisters who served as nurses, nurses aides, mother's helpers, etc., was invaluable and contributed much to the successful accomplishment of this mission.

The availability of potable water made the situation much easier and avoided much trouble.

Prepared baby formula which was initially sent from Fort Polk and later supplied by the Red Cross helped immeasurably in the proper and sanitary feeding of infants.

The procurement of chemical toilets insured success of the operation at Algiers Naval Station.

V. RECOMMENDATIONS.

That the Surgeon get into the area early and survey the situation in order to establish valid requirements.

That the medical personnel and equipment sent in be tailored to the particular problem rather than committing whole units.

That early liaison and consultation be effected with the local health authorities in order to plan and program the overall support.

That a Preventive Medicine Officer and Operations NCO be included in the Surgeon's Section early in the operation.

/s/ HAROLD G. STACY

HAROLD G. STACY
Colonel, MC
Post Surgeon

ANNEX V - LIST OF SUPPORT UNITS

LIST OF SUPPORT UNITS

Fort Polk

1 Support Headquarters
1 Engineer Company (168th Engr Bn)
5 Mess Teams
1 Medical Team
1 Maintenance Team
1 Shower Team
3 Generator Teams
11 Engineering Personnel (Civilian)

Total of 449 Fort Polk Personnel

Fort Hood

20 Mess Teams

Fort Sam Houston

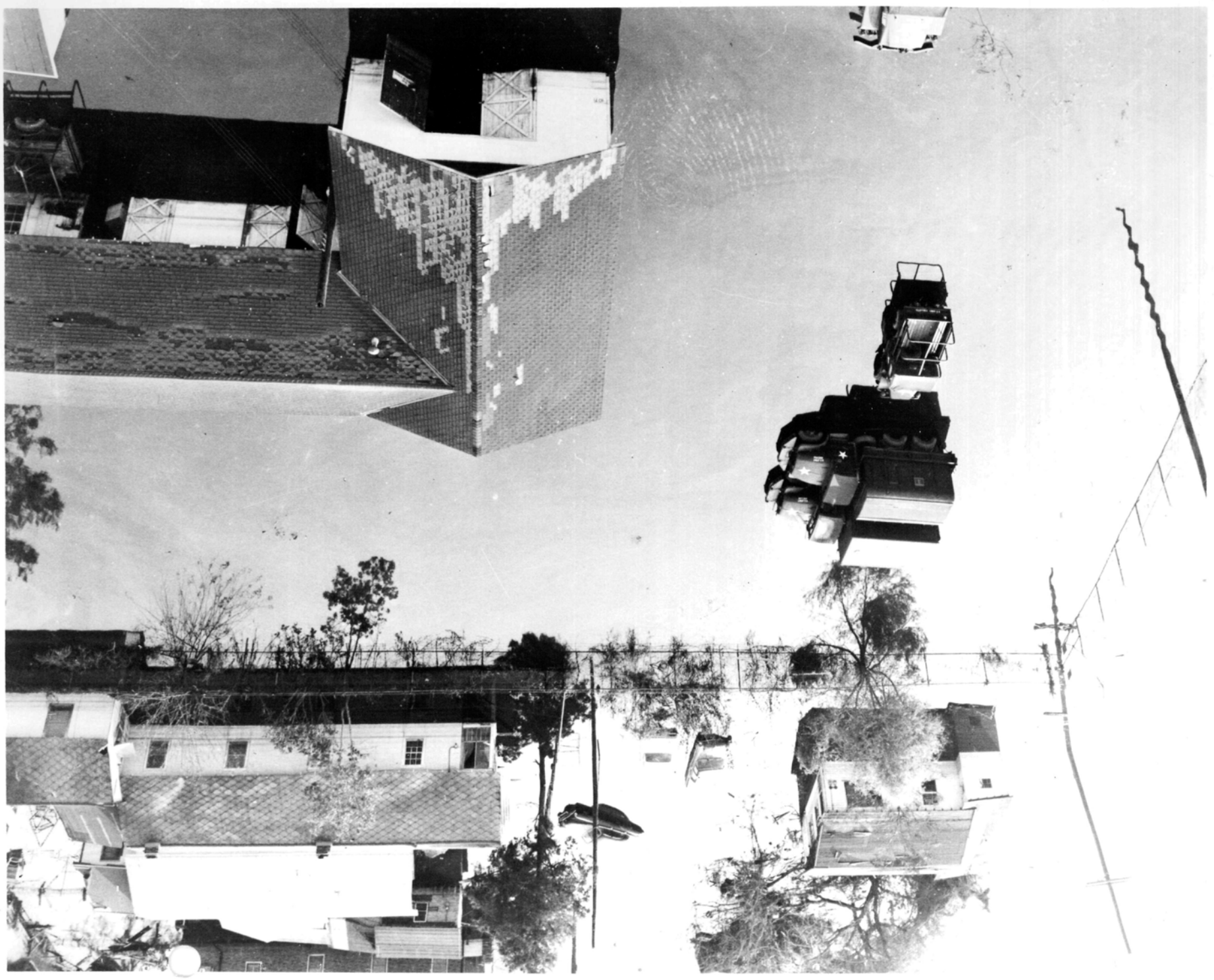
1 Generator Team
1 Sanitation Team

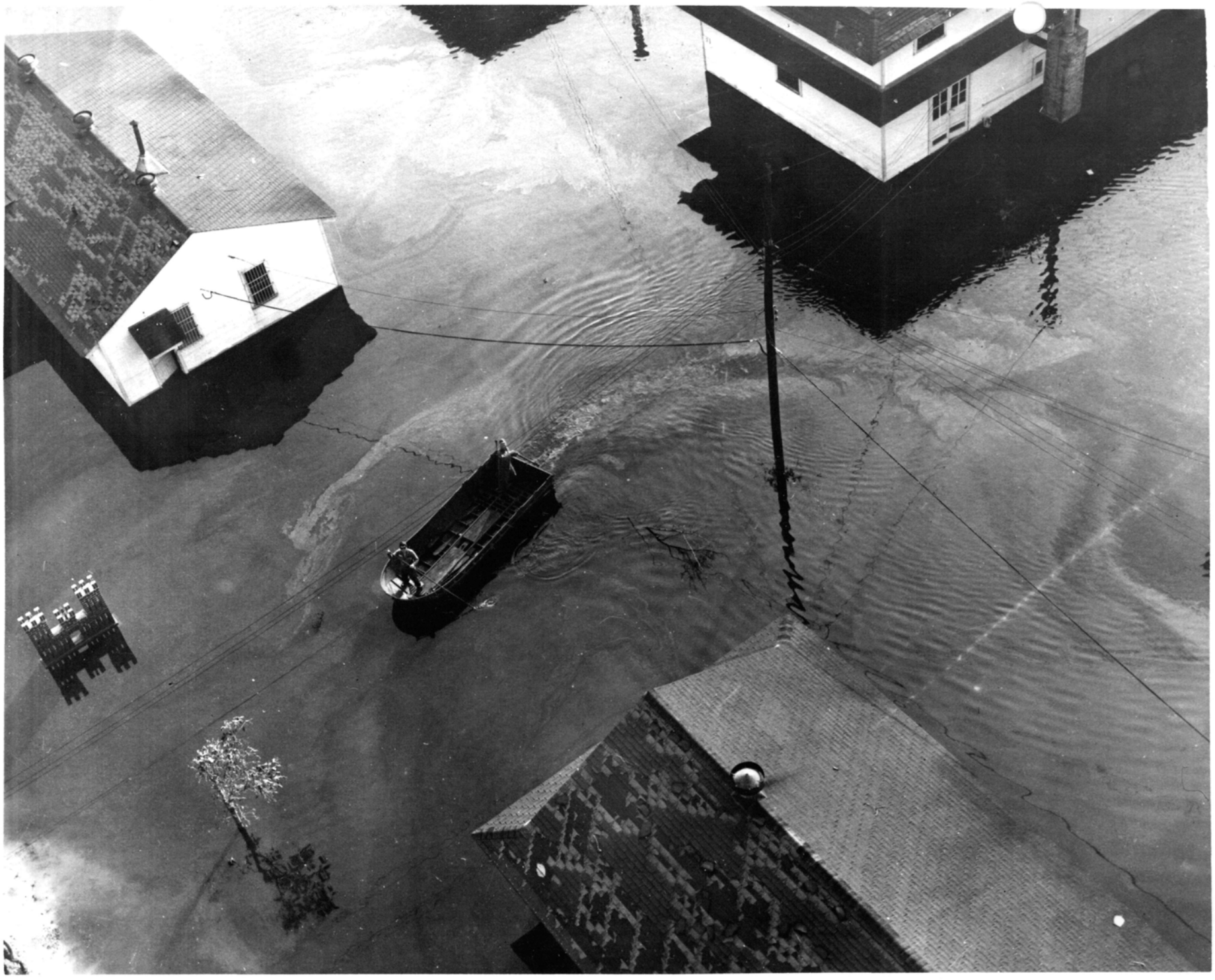
Total of 211 Fort Hood and Fort Sam Houston Personnel

ANNEX VI - PICTORIAL COVERAGE

NEW ORLEANS
ARMY BASE
RESTRICTED AREA
WARNING

STOP
DRIVE SAFELY
SPEED LIMITS
BASE.....15 MPH
WHARF.....5 MPH
DIM YOUR LIGHTS!





HERRIN

ARMY
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53207

BUCKLE UP
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ARMY

LANE 8
LANE 7