U.S. ARMY MATERIEL COMMAND

THE ROLE OF THE U.S. ARMY MATERIEL COMMAND

LOGISTICS SUPPORT GROUP

IN THE

HURRICANE ANDREW RELIEF OPERATIONS

GENERAL JIMMY D. ROSS
(U.S. ARMY, RETIRED)

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Logistics Issues Research (LIR) Monographs

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Foreword

This history discusses the support rendered by the Army Materiel Command (AMC) to the humanitarian relief effort which followed in the wake of the devastation caused by Hurricane Andrew in South Florida. It illustrates how the new Army is adapting its capabilities so as to be able to provide support for operations other than war, such as peacekeeping or, as in this instance, humanitarian relief. A logistics power projection capability, initially displayed during the Gulf War, was adapted for an important domestic humanitarian mission. The U.S. Army Materiel Command gave able support not only to the Army but to the rest of the Federal Government and to the private charitable organizations that were providing relief to the inhabitants of the devastated area.

Prepared by General Jimmy D. Ross, the Commanding General of the Army Materiel Command during the Hurricane Andrew relief operation, this history provides insight into the way that the Army can quickly project its logistics capabilities, in this instance primarily its depot capabilities, wherever it is needed. I commend General Ross and the Army Materiel Command both for a job well done during the relief operation and a job well done in preparing a history of this important mission.

Gordon R. Sullivan
General, United States Army
Chief of Staff

Preface

AMC operations in support of relief for the victims of Hurricane Andrew in Dade County, Florida was a new mission for AMC but one that was in line with one of AMC's three core competencies--logistics power projection.[1] Although power projection was normally considered as something happening outside of the United States, the Hurricane Andrew relief operation resulted in a major logistics power projection effort within the United States, an effort in which AMC and its Logistics Support Group played a major role. This effort at internal power projection played a role in influencing the 1993 revision of Field Manual (FM) 100-5, *Operations*.

AMC's on-site presence in the relief operation was provided by its Logistics Support Group. The AMC Logistics Support Group had developed out of the AMC's experience in Southwest Asia (SWA) during Operation Desert Shield/Storm when AMC had a substantial forward presence in the field. After the war AMC, at the direction of the Chief of Staff of the Army, developed a formal structure known as the Logistics Support Group (LSG), that was since renamed in 1993 as the Logistics Support Element (LSE), which would be activated during crisis situations to give AMC the ability to project itself into the theater of operations to provide support to the Army. Later, in Kuwait and Haiti, the LSE was activated as a Joint Logistics Support Element (JLSE), but the first test of the LSG concept came not as a result of international conflict but as a result of a natural disaster on American soil, the aftermath of Hurricane Andrew in South Florida. A DOD Director of Military Support (DOMS) message through the Army to AMC designated AMC as the Executive Agent to support all Federal agencies and civilian relief organizations in South Florida.

As a result of the fact that the activation of the LSG did not occur during a period of combat, Army units were available to perform the AMC mission, and, thus a significant portion of the LSG was manned by Army units attached to the LSG rather than by the civilian volunteers who had made up the bulk of the AMC forces in SWA. There were, however, a significant number civilian volunteers present in the Hurricane Andrew relief operation, both in the LSG and in the main depot hub. More important, the backlog of over a thousand civilian volunteers willing to deploy to the scene if needed proved that the LSG concept could rely heavily on AMC civilians if needed.

During the relief operation the LSG played a key role in bringing order and efficiency to the distribution of relief supplies to the people of Dade County. It had become fully operational within 150 hours after its first elements arrived in Miami. In 17 days it had reduced the stockpile of donated goods from a high of 7,296 short tons to 421 tons by moving the supplies from the warehousing facilities to the soldiers and relief agencies that actually distributed them to the people in need. It had managed an inventory of government

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[1]AMC's other two core competencies were Acquisition Excellence and Technology Generation and Application.

supplies that exceeded $35 million and received and issued a quantity of plywood that if placed end to end would reach from Miami to Key West, Florida, 130 miles. Overall, the LSG handled enough materiel to support a heavy division (less petroleum, oil, and lubricants, and ammunition) for 121 days.

The Hurricane Andrew relief operation not only tested the LSG concept, it also appeared to point the way to possibly increased involvement in disaster relief operations and Operations Other than War by the Army. Judging from the success of the LSG and of the DOD relief mission as a whole, it was likely that the LSG would be tasked in future disaster situations to perform a similar mission. In retrospect, the JLSE for the Somalia, Haiti, and Kuwait crisis were modeled after the LSG/LSE concept. That concept also clearly played a role in influencing the 1993 revision of Field Manual (FM) 100-5, *Operations*. Whereas the previous edition of the manual published in 1986 had dealt exclusively with combat operations, the June 1993 edition of FM 100-5 devoted a chapter to "Operations Other Than War," with the disaster relief effort following Hurricane Andrew being used as one of its historical examples.[2]

I would like to express my appreciation to the HQ, AMC Historical Office for the support provided to me in this monograph. I greatly appreciate the efforts of Robert Darius, Herbert Leventhal and Kathleen Lockwood in this project.

General Jimmy D. Ross
U.S. Army, Retired

[2]Field Manual 100-5, *Operations*, May 1986 and June 1993.

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Introduction

AMC, as the DOD executive agent, played a major and critical role in the Hurricane Andrew relief operation. It rationalized, to a large extent organized, and manned the supply system infrastructure needed to take the private and government supplies being furnished for disaster relief and made sure that those supplies went in an expedient fashion to the troops who in turn directly gave the supplies to the people impacted by Hurricane Andrew. Unlike the bulk of the troops sent to South Florida, who dealt directly with the people hurt by the hurricane, AMC did not deal to a great extent with the South Florida population. In fact the one AMC facility that did deal directly with the impacted population, the distribution center at Florida City, was quickly transferred to regular troop unit, the 10th Mountain Division, because AMC was not to get into the business of retail supply to people in need. Instead, AMC's mission, one that it did well, was to make sure that the soldiers dealing with the impacted local population were supplied with what the population needed so that they could be of maximum assistance to them.

Background of Disaster. On 24 August 1992, Hurricane Andrew hit Florida near Homestead (south of Miami) at dawn with winds clocked at nearly 140 miles per hour, according to some accounts, and over 170 according to others. When the winds finally died down, the path of devastation was clear. There were palm trees and downed power and telephone lines blocking the streets. An estimated 250,000 people were left homeless. In Dade County alone, one out of every 10 was left homeless. President George Bush promptly declared 4 Florida counties a disaster area; Dade and Monroe to the south of Miami, and Collier and Broward to the north.

The hurricane was not finished, however. On 26 August 1992 Hurricane Andrew hit Louisiana west of New Orleans, coming from the Gulf. Initially 18 parishes (Louisiana's version of counties) were declared disaster areas by the President -- 18 more would be added later as the full extent of the destruction became known.

Meanwhile, the Headquarters Army Materiel Command Emergency Operations Center had begun monitoring progress of the hurricane in Florida on 24 August.[3] AMC personnel fully expected to be tasked for disaster relief, although they had as yet received no word. They knew that Florida Army National Guard troops had been immediately called up, running security missions, delivering over 12 tons of food on August 25 alone, then bringing in 30,000 Meals, Ready-to-Eat (MREs). They had also set up water purification units at several sites. This effort, involving over 5,000 Guardsmen by 28 August, had not been enough, however. There were complaints from many sources that the Federal government should do more, and do it faster.

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[3]U.S. Army Materiel Command Operation Disaster Response Hurricane Andrew After Action Report, ca Dec 1992, p. W-1. Hereafter cited as AMC After Action Report.

AMC LSG IN

Damage in Southern Florida after Hurricane Andrew

HURRICANE ANDREW RELIEF OPERATIONS

Huricane Andrew Disaster Assessment Template

Donations were continuing to pour in from all 50 states, but were overwhelming the state-run relief intercept center at the West Palm Beach fairgrounds. On 27 August, Headquarters, DA, which had already provided some support to the Federal Emergency Management Agency (FEMA) and Florida officials, detailed the supplies and equipment furnished to the disaster area to date: aircraft transportation support for FEMA personnel, power generation equipment and crews, over 200,000 MREs, and Corps of Engineer field teams. The President made the decision that day to furnish more extensive military support, including direct troop support.

The first Federal troops, from the 82d Airborne Division, Fort Bragg, North Carolina, arrived at 0800 hours on 28 August. A Warning Order was phoned in around 2100 hours to Headquarters AMC to deploy an Army Humanitarian Depot (AHD) to South Florida.[4]

The Role of FEMA and Other Non-DOD Agencies. The Federal Emergency Management Agency (FEMA) was responsible for planning, coordinating and funding for disaster relief operations. However, they were dependent upon other Federal agencies, state and local government agencies, nonprofit organizations and contractors to execute such operations.

FEMA is the proponent for the *Federal Response Plan* (FRP), which outlines the agreed upon responsibilities of the various national and regional level Federal departments and agencies for emergency assistance. The *FRP* is designed for use within the United States and its territories. It should be noted that Hurricane Andrew, affecting Florida and Louisiana, was closely followed by emergencies in Hawaii and Guam, all of which were handled under the *FRP*.[5]

An examination of the *FRP* shows that there are 12 Emergency Support Functions (ESFs) that are considered essential for emergency assistance. DOD had primary responsibility for (1) Public Works and Engineering and (2) Urban Search and Rescue. However, DOD also has responsibility for supporting the designated primary agency in each of the other 10 ESFs, as well.[6]

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[4]Ibid.

[5]Although the AMC Operations Center tracked the problems in Guam and Hawaii, and some taskings were received, no major AMC efforts were required to support relief operations in those areas.

[6]See *Federal Response Plan (for Public Law 93-288, As Amended)*, Apr 92. The Army had support responsibilities for transportation, communications, fire fighting, information and planning, mass care, resource support, health and medical services, hazardous materials, food, and energy. The matrix listing the ESFs is found in Figure 2, pg. 14 of the plan.

HURRICANE ANDREW RELIEF OPERATIONS

Perhaps partly because of the number of the emergencies experienced in recent times, perhaps in part because the extent of the disaster and the inability of local resources to handle it were not immediately apparent, FEMA appeared to be overwhelmed in the early days of the operation. The demand for funding, the sheer number of non-Federal organizations which leaped to action, and the scope of the overall mission contributed to this. In addition, while the outpouring of donated items from the public was gratifying, the logistic demand was far beyond the capabilities of most Federal agencies.

One of the most pertinent criticisms made of the interagency relief effort, however, was that the various organizations lacked familiarity with other agencies equipment, operational procedures, and capabilities in providing relief support. In particular, the military lacked knowledge of the *FRP*.[7] The consensus of AMC planners was that,

> There needs to be a joint agency effort to develop specific roles and missions for each agency to eliminate overlap. Each agency should then develop specific contingency plans to include all personnel, equipment and facility requirements, as well as information systems and communications needs. Those roles and missions need to be incorporated into the mission statement of each organization involved, and specific training programs and exercises should be developed.[8]

This lack of understanding of the role of FEMA as well as the role of other agencies involved in disaster relief was apparent when AMC first arrived on the scene to establish the depot system. The Commander of the Logistics Support Group, Major General Thomas B. Arwood, stated that:

> What we don't bring with us is an understanding of the interrelated political aspect -- state, county, city the Red Cross, FEMA -- as I said to somebody the other day, I think I slept that day in War College when they discussed FEMA. I didn't know what it was, what it's role was, how it fit.
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> If you'd asked me two weeks ago or told me two weeks ago that the Forestry Department has a emergency reaction organization that can come in and start to

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[7]Joint Task Force Andrew (JTFA) After Action Report: Draft Overview Executive Summary, 26 Sep 92.

[8]JULLS NUMBER: 10803-13476 (00034), TITLE: PROPONENT RESPONSIBILITY. Submitted by LOG OFCR REP, COL Kirby. JULLS can be located in the Army JULLS database by number or, for Hurricane Andrew, at the AMC Operations Center or Historical Office.

reseed property and issue it, I wouldn't have known anything about it. Now I know.[9]

The Organization of Joint Task Force Andrew

The chain of command for the AMC LSG during the Hurricane Andrew relief operations included the Commander in Chief, U.S. Army Forces Command, GEN Edwin H. Burba, Jr., who had overall responsibility for the task force. The Commander of Joint Task Force (JTF) Andrew was the Commander, Second U.S. Army, LTG Samuel E. Ebbesen. His Deputy Commander was MG Crumlet, and in charge of the Joint Task Force Staff was MG Griffits. Within JTF Andrew there were separate Task Forces for Army Forces, the US AMC Logistics Support Group, Naval Forces, Marine Forces, and Air Force Forces, as well as a Canadian Force. The break out of the Logistics Support Group into a separate organization directly below the JTF commander rather than as part of the Army Forces (ARFOR) was endorsed in a draft JTF After Action Report as enhancing "the command and control of the wholesale logistics operation."[10]

AMC Mobilization

Beginning 29 August, the Headquarters AMC Emergency Operations Center (EOC) began operating on a full 24-hour schedule.[11] COL Lewis G. Mason, Chief, Command Operations Division, DCS for Logistics, took control of the EOC beginning in the early hours. The Headquarters AMC EOC also performed the rear detachment functions for the Logistics Support Group throughout the JTF Andrew operation. It worked so well that the staff recommended that this support be provided in future disaster relief operations.[12]

The 30 August 1992 formal Execute Order (EXORD) from the Secretary of the Army tasking AMC to deploy the Depot Support Group (later called the Logistics Support Group) was received by the Command Group that same day. The mission given AMC was as follows: "AMC will immediately deploy a depot support group capable of providing depot support functions to receive,

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[9]Interview by Dr. Robert Darius of Major General Thomas B. Arwood in Miami, Florida on 8 September 1992. Hereafter cited as Darius interview with Arwood, 8 Sept 92.

[10]Joint Task Force Andrew (JTFA) After Action Report, (second draft, 28 Sep 92), p. 5.

[11]Msg, 291100Z Aug 92, CDRAMC to CDRATCOM, CDRCECOM, CDRTACOM, CDRDESCOM, subj: Activation of AMC Operations Center.

[12]JULLS NUMBER: 71658-69689 (00020), TITLE: LSG REAR DETACHMENT. Submitted by CHIEF OF STAFF, COL Glisson.

HURRICANE ANDREW RELIEF OPERATIONS

JTF ANDREW ORGANIZATION

store and issue materiel received for disaster relief operations in southern Florida." AMC was to determine the location of the depot, develop the requirements for establishing and operating it, and deploy the personnel and equipment needed to operate it. The Defense Logistics Agency (DLA) was to provide assistance to AMC as required, which, as will be seen below, it did.[13]

Prior to this formal EXORD, however, AMC had received telephonic warning that this tasking was coming, and considerable activity in fact took place prior to the receipt of the formal EXORD. I, General Jimmy D. Ross, Commander, AMC, held a long series of conversations with top Army and DOD military and civilian personnel over the weekend of 29-30 August. The distinguished consultees included the Honorable John W. Shannon, the Under Secretary of the Army; GEN Gordon R. Sullivan, the Army Chief of Staff; GEN Dennis J. Reimer, the Army Vice Chief of Staff; Mrs. Susan M. Livingstone, the Assistant Secretary of the Army for Installation Logistics and Environment; LTG Leon E. Salomon, the Army Deputy Chief of Staff for Logistics; LTG Samuel E. Ebbesen, the Commanding General, Second U.S. Army; LTG Leo J. Pigaty, the Deputy Commanding General, AMC; MG Johnnie E. Wilson, the AMC Chief of Staff; MG Donald R. Williamson, the Commanding General, Aviation-Troop Command (ATCOM); and MG Dennis L. Benchoff, the Commanding General, Depot Systems Command (DESCOM). A number of these individuals were major players in formulating the Army's and AMC's response.[14]

The LSE was launched when General Sullivan called me over the weekend, I believe on Saturday, and indicated that the Florida Governor had asked for Federal assistance so I should be ready to launch my AMC LSG advanced team. I called MG Arwood only to find that he was playing golf. I paged him and asked him to head up the LSG in Florida and plan to leave ASAP. He departed for Florida within a few hours by C-12 aircraft.

MG Thomas B. Arwood, the AMC Deputy Chief of Staff for Logistics (DCSLOG), was indeed on the golf course at Fort Belvoir, VA, on Saturday afternoon, 29 August 1992, when he got a note to call Lieutenant General Pigaty, AMC's Deputy Commanding General. He was told, "General Ross will give you instructions and we want you in Miami now."[15] MG Arwood recalled that GEN Ross told him to "put together the elements of the Log Support Group which we have been working a TDA [Table of Distribution and Allowances] and

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[13]Msg, 301232Z Aug 92, Secretary of the Army to CDR, AMC, subj: AMPN/FRAGORD for Hurricane Response.

[14]AMC After Action Report, p. W-3.

[15]Darius interview with Arwood, 8 Sep 92.

HURRICANE ANDREW RELIEF OPERATIONS

LTG Salomon, HQDA DCSLOG Visits Relief Operations

establishment ever since Desert Shield/Desert Storm, and put into effect a depot system that could help the State of Florida in the distribution of Humanitarian items."[16]

General Arwood arrived in Miami on 29 August at 1800 local time, to survey and establish the AHD. Accompanying him was only his executive officer. This, as he noted, was a mistake since a bigger initial party would have been preferable. At a minimum he would have taken a legal person and a procurement or acquisition person with a warrant for about $500,000 to spend immediately.[17] After a few more days to think about it he expanded the ideal advance party for such an operation to a total of seven including an aircraft and its crew.[18] The lessons learned submitted by the LSG G-3 (operations) recommended an advanced party totalling 15 military personnel including the Commander; Chief of Staff; Commander's driver; HQ Commandant; G4; Contracting Officer; G3; G3 Operations Sergeant; Communications NCO; G3 NCO; and 5 detail soldiers including a Clerk/Typist and a Computer Operator.[19]

Establishment of LSG Headquarters and the Depot Hub

By the time MG Arwood had arrived in Florida to establish the LSG, AMC personnel from the Aviation Troop Command (ATCOM) and the Depot Systems Command (DESCOM) were already on the scene. ATCOM had dispatched Colonel James H. Bennett as Officer in Charge (OIC) of the ATCOM Logistics Assistance Team (LAT) charged with ensuring "a positive handoff of ATCOM managed items and the sustainability of deployed Army aircraft." The team consisted of Colonel Bennett, Captain Scott Dolloff, a procurement specialist, Major Jack Supplee, a troop item analyst, and Mr. Don Hamblin, a civilian supply specialist. On the 29th the team was notified of MG Arwood's arrival, and then picked up and arranged for the billeting of MG Arwood and his party.[20]

The ATCOM LAT was then absorbed into what developed into the LSG headquarters, with Colonel Bennett serving first as MG Arwood's deputy, then as G-3 (Operations), and finally as G-3 forward with the forward depots. Mr. Hamblin accompanied Colonel Bennett to the forward depots, while Major Jack Supplee served initially as the G-4 (Logistics) and then,

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[16]Ibid.

[17]Ibid.

[18]Notes on MG Arwood's comments at the 10 Sep 92 AMC staff meeting.

[19]JULLS NUMBER: 10944-37831 (00060), TITLE: COMPOSITION OF ADVANCE PARTY. Submitted by LSG HQ G3, MAJ Supplee.

[20]ATCOM Chronology of Events (Hurricane Relief Effort), submitted by Col. Bennett, 22 Sep 92.

HURRICANE ANDREW RELIEF OPERATIONS

MG Arwood, Commander of the LSG, and GEN Ross in Southern Florida

as the LSG headquarters matured and grew, as an action officer and briefer. Captain Dolloff was the first procurement officer on the staff and arranged the initial procedures and organization for what eventually became a staff of one resources and four procurement specialists. As the original LAT was thus absorbed into the LSG headquarters staff, a second LAT was sent from ATCOM to provide the aircraft support function. It arrived on the scene on 4 September and established itself at Opa-Locka airport.[21]

The presence of these personnel from the first ATCOM LAT to help fill holes in the LSG staff was valuable. The LSG G-4 section was not fully staffed for a week, and AMC lessons learned noted that the advanced party should have at least two people assigned to G-4.[22] The presence of a procurement officer on the scene this early was especially fortuitous given the absence of such a person in the LSG advanced party. There were, however, a number of glitches in the establishment of a procurement program for the LSG, although most of them were quickly resolved. No contracting activity initially had responsibility for contracting for the LSG and there was confusion over this issue until ATCOM was appointed the contracting office on 4 September.[23] Procurement personnel from other Major Subordinate Commands (MSCs) also assisted at the LSG, however their warrants were for their own MSCs and not for ATCOM, and thus were initially not valid. In addition, at first the LSG procurement officer did not have a certification of available funds. An issue which remained unresolved during the operation was the fact that the procurement personnel did not have government commercial credit cards which would have been more acceptable to local stores than government purchase orders. AMC issued formal lessons learned on all these issues in an attempt to have them resolved prior to any similar operations.[24]

The importance of having contracting personnel on the scene can be realized when one notes that as of the end of Fiscal Year 1992, which occurred on 30 September 1992, the LSG

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[21]Ibid.

[22]JULLS NUMBER: 42031-25161 (00028), TITLE: PROPERTY ACCOUNTABILITY. Submitted by LSG HQ G-4, MAJ Dempsey.

[23]For the date ATCOM was appointed, see the AMC DCS for Acquisition Historical Submission for the FY92 Annual Historical Review, in the AMC Historical Office Archives.

[24]JULLS NUMBER: 33103-75014 (00076), TITLE: FUNDS AVAILABILITY CERTIFICATION. Submitted by AMCCC JCS, MAJ Medsger. JULLS NUMBER: 33107-21622 (00077), TITLE: DESIGNATION OF CONTRACTING ACTIVITY. Submitted by AMCCC JCS, MAJ Medsger. JULLS NUMBER: 33107-42702 (00078), TITLE: CONTRACTING OFFICER WARRANTS. Submitted by AMCCC JCS, MAJ Medsger. JULLS NUMBER: 33107-63892 (00079), TITLE: GOVERNMENT CREDIT CARDS. Submitted by AMCCC JCS, MAJ Medsger.

reported that its contracting office had obligated $509,480.65 in contracts and spent another $3,553.74 from its imprest funds. A significant amount was spent early in the operation. For example, on 3 September, the obligations included $2784.62 for stretch wrap, $1,000 for film processing, $2,423.85 for lumber/banding, $520.20 on photo film, $23,147.30 on van rentals, and $2,800 on motel rooms.[25]

From our experience in Desert Storm we knew that we should have included a number of functional specialists, i.e., a legal officer, a warranted contracting officer, a Class A finance officer, and a command historian. They would be instrumental in the early phases of operations.

Also on the scene by 29 August were two people from DESCOM--LTC Richard Hall, DESCOM's Deputy Director of Supply, Ammunition, and Transportation, and Mr. Marvin Salsman, a supply specialist analyst. They had come to set up the humanitarian depot system, since AMC had charged DESCOM to act as the executive agent for depot operations. They established the procedures for receiving, accounting for, and shipping the supplies that poured into the area.[26]

The first steps in the establishment of an operating humanitarian depot system was the establishment of the LSG headquarters and the main depot hub. MG Arwood developed the LSG headquarters structure with the understanding that certain elements of a full logistics support group would not be needed. As MG Arwood stated, "I can take the parts of the log support group concept and say I need a command, I need a staff, I need a supply depot, I need a depot operations section .... I didn't need the rest of it and it worked out superbly well."[27] Elements of the full-scale LSG which were not included in the Hurricane Andrew relief operation included, for example, a Test, Measurement, and Diagnostics Equipment (TMDE) Battalion (although a TMDE Area Support Team did later deploy), Automation Logistics Division, a Quality Assurance Division, etc.[28]

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[25]AMCLSG-AQ, MEMORANDUM FOR RECORD, SUBJ: Report of Obligations (FY92 Final Report), 30 Sept 92.

[26]Depot System Command [Army Humanitarian Depot submission], 17 Sept 92 and AMC After Action Report, p. E-1.

[27]Darius interview with Arwood, 8 Sep 92.

[28]See Logistics Support Group Structure (Concept), in section A of the Logistics Support Group (Provisional) Draft After Action Report. The text of this draft after action report was essentially duplicated in the AMC Operation Response Hurricane Andrew After Action Report; however, the draft had valuable backup material not included in the final report.

AMC LSG IN

AMC LSG Staff

The Joint Task Force Andrew had selected Building 11 at Miami International Airport (MIA), a building formerly used by Eastern Airlines but which was currently unused, to serve as the site of the LSG headquarters. As MG Arwood described it,

> I came in Building 11. They said, "You'll probably have an office on the 4th floor." I came up the 4th floor and walked into this very office. There were no lights, there was no furniture and there was no telephone. That was our location.[29]

A number of other Federal agencies, including the U.S. Forest Service, had already established logistics operations in Building 22, a large hanger at Miami International Airport. The U.S. Forest Service previously had been tasked by FEMA to take responsibility for incoming Federal property, such as cots, tents, and generators. On reviewing Building 22 the day after he arrived, 29 August, General Arwood decided that it would be an appropriate location for the LSG hub and so "we worked our cooperation and moved in with the Forest Department at that point."[30] This hub was set aside for supplies for the relief operation furnished by the Federal government, as opposed to the flood of supplies donated by the general population. It was also soon designated as the point for the return of excess Federally owned items as after only a few days into the operation, it soon became evident that a large number of cots and tents would not be needed; other items would later be added to the list.

By 31 August, AMC personnel had been called forward to operate the new hub. These were largely from DESCOM, supplemented with personnel from DLA. The main Army Humanitarian Depot (AHD) actually began operations with personnel from the U.S. Forest Service, DLA and Army. The AMC team in Florida at that time consisted of 30 military and 40 civilians from HQ AMC, Depot Systems Command (DESCOM), Anniston Army Depot, Tobyhanna Army Depot, Armament, Munitions and Chemical Command (AMCCOM), Communications-Electronics Command (CECOM), Test and Evaluation Command (TECOM), Missile Command (MICOM), Tank-Automotive Command (TACOM), and Aviation and Troop Command (ATCOM). DESCOM was given the mission of establishing the depot itself under LTC Richard Hall.

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[29]Darius interview with Arwood, 8 Sept 92.

[30]Ibid.

Relief and Recovery Operations

General Situation.

AMC's primary role in this stage of the relief effort was to establish a depot system to help the State of Florida distribute the massive influx of donated aid, which included everything from baby food to water, to clothing and cleaning supplies. According to MG Arwood, this phase lasted about three and a half days, and:

> "I would tell you when I arrived and flew in that area Sunday morning [30 August], if you're familiar with the Maslow Hierarchy of Needs[31], I saw a community that was absolutely in a survival level, at the bottom of the pyramid, as you and I know it. I mean they didn't have anything, they had lost everything and so our collective function--the Red Cross was in here, when we arrived with everybody else--were trying to feed them, give them a place to stay, get them out of the weather."[32]

The general situation, as of 30 August, was still unstable. Curfews were in effect, and there was scattered looting. Main roads were passable; the critical factor was water and sanitation. Fifty percent of the pumping stations lacked power. Two of four sewage plants had major damage. The Corps of Engineers noted that the high water table meant that waste and sewage would quickly get into the water supply.[33]

LSG Infrastructure

Building a functioning LSG headquarters structure from scratch took some improvisation and rapid development in a number of areas.

Name. The very name of the organization was in some doubt at first. AMC was originally tasked to supply a depot support group. Upon the arrival of MG Arwood on the scene, the AMC organization was called Task Force Arwood. On or about 2 September it was redesignated the U.S. Army Command Logistics Support Group. This series of rapid name changes caused confusion among both customers and the Task Force Andrew staff. As a lesson learned it was recommended that AMC publish an official order establishing the LSG at the start of any such operation. Humanitarian depots and units under OPCON to the LSG could then be

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[31]Abraham H. Maslow's hierarchy of human needs had physiological needs at the bottom.

[32]Darius interview with Arwood, 8 Sep 92.

[33]Briefing Document, AMCLSG-SC-M, "AMC Disaster Response Update," 31 Aug 92.

subordinate to the LSG, which would be a legitimate command and control organization.[34] In practice, the AMC General Order provisionally establishing the U. S. Army Materiel Command Logistics Support Group was not issued until 14 September 1992, although the establishment of the LSG was made effective as of 29 August 1992.[35]

Dedicated Aviation Support. It was difficult for General Arwood to obtain use of an Army helicopter early in the operation, due to the demand for it resulting from the poor communications in the area. As a result, MICOM deployed a UH-1C with two pilots and a crew chief to give the LSG Commander dedicated air support as of 2 September 92. By 16 September the number of deployed MICOM personnel supporting air operations for the LSG Commander had grown to seven. Through 5 October it flew a total of 84.9 hours and was mission capable throughout that period.[36] General Arwood described his helicopter as his office while he flew around the depot sites in Florida.[37]

Automation Support. Office automation support for the LSG headquarters was inadequate. A few laptop computers were brought by deploying LSG members and a few items were obtained from FEMA and the General Services Administration (GSA) but overall the headquarters was not adequately supported. The G-1 staff went three days with no automation support and what it got afterwards was inadequate. The G-2/G-3 section (intelligence/operations) was unable to produce an automated situation report (SITREP) until the fifth day and it had one laptop computer for a staff of 13. The G-4 section (logistics) went 7 days without automation support, and, in general, all elements of the headquarters suffered similar problems. This resulted in a considerable amount of inefficiency and decreased capacity within the LSG headquarters. An additional weakness was that the LSG did not have a TACCS [Tactical Army Combat Service Support Computer System] machine used by all battalions for strength accountability and reporting. As a result, duplicate databases had to be maintained at both locations.

The recommended lessons learned from this was that the LSG needed a TACCS machine and a considerable package of dedicated computer equipment, and an automated data processing

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[34]JULLS NUMBER: 71657-33425 (00017), TITLE: DESIGNATION OF USAMC LOGISTICS SUPPORT GROUP. Submitted by CHIEF OF STAFF, AMCLG, COL Glisson.

[35]AMC Permanent Order 89-1, 14 Sept 92.

[36]AMC After Action Report, p. H-1, and charts on AMC Daily Flying Hours and Aviation Status in section H; MICOM Executive Summary, 17 Sep 92.

[37]Darius interview with Arwood, 8 Sept 92.

(ADP) specialist, so that it could deploy and set up on its own an efficient automated system.[38] Another recommendation was simply that all the on-hand equipment used by the staff, as well as what was not currently available but was needed, simply be packed up and put in storage to await the next LSG humanitarian operation.[39]

LSG Headquarters Staff. The need to provide a staff, G-1 through G-4, for the LSG was unexpected. The LSG concept envisioned the LSG assigned to a higher level logistical command which would provide such staff support. No such command existed in the Florida relief operation, however, and thus the LSG had to operate as an independent command. Although this worked out effectively, it required that normal staff elements be developed within the LSG to support the commander. The LSG chief of Staff recommended that in the future the LSG concept include a staff module which could be used as needed. That module included a Command Group of 14, a G-1 (Personnel) staff of 9, a G-2/G-3 (Intelligence and Operations) staff of 17, a G-4 (Logistics) staff of 8, a contracting section of 4, a staff judge advocate section of 2, and a Public Affairs Office of 6.[40]

Communications. Communications in South Florida were poor due to the damage to commercial telephone lines, a problem exacerbated by the fact that units had deployed without all of their organic signal equipment. The LSG staff had deployed with a few cellular phones and immediately rented an additional 15 cellular phones to provide communications to all essential personnel within the area. Until normal commercial telephone communications could be established, which required both the repair of damaged land lines and then the installation of telephones, the LSG relied upon two International Maritime Satellite (INMARSAT) system. One was shipped from CECOM and the other from Fort Bragg and both were installed by a three-man team from CECOM. One was located at the LSG headquarters at Miami International Airport and the other was at first set up at Homestead but then relocated on 2 September to Florida City. These satellite systems allowed telephone calls to be bounced off a satellite and

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[38]Logistics Support Group (Provisional) Draft After Action Report, TAB I; JULLS NUMBER: 22441-85860 (00004), TITLE: COMPATIBLE AUTOMATED SYSTEMS. Submitted by HQ LSG G1, LTC Andrews. JULLS NUMBER: 00545-09465 (00101), TITLE: OFFICE AUTOMATION EQUIPMENT. Submitted by USAMC-LSG G-3, SSG Blanchard.

[39]JULLS NUMBER: 71661-36858 (00022), TITLE: LSG EQUIPMENT. Submitted by CHIEF OF STAFF, COL Glisson.

[40]JULLS NUMBER: 71656-63213 (00015), TITLE: STAFF SUPPORT. Submitted by CHIEF OF STAFF, COL Glisson. The combined G-2/G-3 was largely a G-3 operation in this instance. See interview by Robert Darius and Herbert Leventhal with Col Clifton Aldrich, 2 March 93, hereafter cited as Darius and Leventhal interview with Aldrich, 2 Mar 93. He was the AMC DCS for Intelligence and served in Florida as the LSG G-3.

HURRICANE ANDREW RELIEF OPERATIONS

LTC Andrews from TECOM, the LSG G-1

sent to a receiver in Connecticut, which was owned by COMSAT General, and from there it was feed into commercial land lines. This allowed calls to bypass the shattered local land lines in southern Florida. Although CECOM was prepared to send additional terminals, and on 2 September was notified that the LSG might require an additional 5 terminals, by the next day the LSG advised CECOM that recovery of the local telephone system had eliminated the need for additional INMARSAT terminals. The LSG depots also used the multiple subscriber equipment (MSE) to bypass the local telephone system. However, as commercial telephones were installed in each depot site, the INMARSAT and MSE were withdrawn from the system, although the LSG continued to use cellular phones to communicate with leaders who were constantly on the move within the area of operations.[41]

Establishment of the Distribution System.

Several of the main elements of the depot and distribution system had already been established, at least in part, prior to the arrival of the LSG. The use of the West Palm Beach fairgrounds as the main truck intercept point for donated goods had been established by the State of Florida and the basis for the main depot hub at Hangar 22 had already been established by the Forest Service for receiving goods from the Federal Government for relief operations.

West Palm Beach Truck Intercept Point. The main entrance point for donated relief supplies was the West Palm Beach fairgrounds. The operation had begun as a local community drive run by the West Palm Beach Chapter of the Red Cross. The Florida governor then selected the site as the receiving point for donated goods from across the country. It had started out receiving 6 trucks a day and by 8 September was handling over 100 trucks a day. By that date it had shipped over three million tons of relief materiels to the southern end of the state. This area was run by the State of Florida, but the operation had not yet been rationalized prior to the arrival of the Army's 724th Maintenance Battalion. Clothing lay in heaps, described as piles 25 feet long and 12 feet high. Bottled water was everywhere--according to MG Arwood, enough to float the State of Florida.[42]

The 724th Main Support Battalion, which fell under the operational control of the Army Forces (ARFOR) rather than the AMCLSG but which played a key role in the depot and distribution system developed by the LSG, had started working on Monday, 31 August at West Palm Beach (WPB). They reported on the initial structure that appeared to be in place when they arrived:

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[41]AMC After Action Report, B-1 and CECOM Support for Operation Disaster Response 20 August to 2 October 92.

[42]Darius interview with Arwood, 8 Sep 92.

> "A variety of civilian agencies headed up by the governor's assistant, a man by the name of Chuck Wolfe--Bob Taylor, who is a retired Air Force general, and a myriad of agencies -- Red Cross, United Way, etc., that all joined the effort, put out the call for volunteers and had basically for three or four days been conducting the relief effort on their own."[43]

According to the battalion commander isolated groups of truckers unloaded donations from the back of station wagons and so forth, roughly sorted items, and took loads further south to the Red Cross shelter. In addition, trucks heading north passed the word via CB radio about specific needs at each shelter.[44]

The first job of the 724th was to integrate with the civilian effort, as most of the soldiers "that were south [were] basically in the initial stages of setting up." Establishing shifts to receive, warehouse, coordinate transport and off-load at outlying points, and determining the framework of the system was the next step.

WPB was the central location that processed, then sent forward to the depots what was needed on a priority basis. The problems arose when vehicles arrived at forward depots without being processed by WPB. Those vehicles arrived with items not needed or not packaged in a way conducive to immediate use by the forward depots. Use of a central location helped prevent the following problems in the forward areas such as the forward depots receiving unneeded materiel and receiving more materiel than they had space and tentage to store. It also kept forward depots from having to deal with the issue of receiving and issuing goods from multiple sources and simplified the manpower problems of the forward depots by reducing the number of functions they had to perform.[45]

The LSG was to later argue in its lessons learned that the 724th Maintenance Battalion should have been placed under the operational control (OPCON) of the LSG. The report noted that under the existing command and control arrangement the commander of the 724th Maintenance Battalion had to report and respond to three separate commanders--the JTF commander, 1st COSCOM (Corps Support Command), and the Commander of the LSG. The LSG suggested that such a combat service support unit always

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[43]Darius interview with LTC Dale Grainger, Commander of the 724 MSB.

[44]The remainder of this section, except where otherwise noted, is from Ibid.

[45]JULLS NUMBER: 20480-13821 (00023), TITLE: MATERIALS PROCESSING. Submitted by G-3, CPT Nelson.

AMC LSG IN

AHD Sites

be attached to a state truck intercept point in such emergencies, and that such a unit should be always OPCON to the LSG.[46]

Selection of Forward Humanitarian Depots Sites. The selection of the forward distribution sites was made by the LSG based on need and coordination with the troop units that would actually distribute the supplies to the inhabitants.

> We attacked it from the stand point of where was the initial point of where were all these items. We found that its entrance, of course, was West Palm Beach as you saw today. Then we went down and looked at the area where the storm had gone through to see where the greatest need was. We got with the tactical forces on the ground . . . the 18th Airborne Corp, First COSCOM [Corps Support Command], later Tenth Mountain as they rolled in, to coordinate what would be the best location to get stocks of required or needed items.
>
> We looked at actually attacking it from the level of greatest need. The greatest need was in Florida City. Florida City is a community of primary house trailers, and low income, and it received the greatest devastation. The people just didn't have shelter, didn't have anything. So we said that's the first location we had to get supplies into.[47]

That site and the other sites where the LSG placed forward depots were all inspected from the air by General Arwood on 29 August as part of the decision making process on locating the forward depots. He found massive devastation at Florida City and Homestead. Efforts there and at Homestead AFB to find a building that could be used as forward supply depot failed because "there weren't any functional buildings -- all of the roofs were gone from them and so forth." Instead he started looking for an empty space to put up a bare base facility from scratch. The Cutler Ridge area was also heavily damaged with trees down, streets blocked, electricity off, and roofs sheared away, although it was not quite as devastated as Florida City and Homestead were.[48]

Tamiami Airport. Another element of the system, although one which saw little use, was an overflow facility for trucks that could not be accommodated at West Palm Beach. Within his first days on-site General Arwood toured Tamiami Airport and made an agreement with the

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[46]JULLS NUMBER: 33102-26430 (00072), TITLE: UNCLEAR COMMAND RELATIONSHIP BETWEEN 724TH MSB AND ARFOR COMMANDERS. Submitted by USAMC-LSG G3, MAJ Eledu.

[47]Darius interview with Arwood, 8 Sep 92.

[48]Ibid.

airport manager for space to be used for trucks.[49] Tamiami, remained a backup site throughout the operation, capable of being another major depot site if needed, and also maintaining a capability to redeploy equipment if the troops needed to return home in a hurry.[50]

Main Depot Hub Operations. The establishment of the main components of the depot system proceeded quickly. Action to establish the main hub depot located in building 22 at Miami International Airport had in effect begun on 27 August when the Forest Service had established itself in Building 22 and begun to respond to the FEMA request that it receive, store and issue Federal Supplies. The Army's response had begun with the 29 August arrival of LTC Hall and a civilian from DESCOM. In addition, on that same day the Defense Logistics Agency (DLA) sent a GS-15 and a team of seven to coordinate subsistence and medical supply matters. DLA followed up the next day by sending a Navy Captain, Captain J. E. Vogelsang, the Commander of the Charleston Depot, to act as the DLA representative in the area. DLA and AMC quickly agreed to run the depot as a joint Army and DLA operation.[51] DLA also provided a considerable amount of depot equipment for the operation of the depot. On 4 September, for example, DLA equipment being called forward to assist in the operations of the humanitarian depot included 21 forklifts, 12 portable truck ramps, 5 stretch wrap machines, 750 pallet nesting frames, and many consumable supplies such as boxes, stretch wrap material, banding material, pallets, and office supplies.[52] Initial plans for the depot to be manned by the 227th General Supply (GS) Company, which was coming into the area and was to be assigned as OPCON to the LSG. The 227th General Supply Company, however, as will be discussed below, was diverted to more urgent assignments in the forward area.[53]

As a result of the division of military units to other tasks, the humanitarian depot hub was operated primarily by volunteers drawn from the DESCOM and DLA depot systems. Early in the operation seven volunteers from Anniston Army Depot, nine from Letterkenny Army Depot, and one from Red River Army Depot arrived to assist in the operation. They were followed by other DESCOM military and civilian personnel included Colonel Patrick Kirby, DESCOM's Director of Supply, Ammunition, and Transportation, who had arrived the second week in

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[49]Ibid.

[50]Darius interview with BG James W. Monroe, Sept 1992. Hereafter cited as Darius interview with Monroe.

[51]AMC After Action Report, p. E-1 and W-4.

[52]AMC After Action Report, p. W-10.

[53]Ibid., pp. E-1 to E-2.

September to take over command of the DESCOM-run Army Humanitarian Depot,[54] and who remained in Florida until the end of the relief operation in mid-October. By 9 September 1992 the LSG assumed full responsibility for the hub operations in Hangar 22, and conducted a farewell ceremony for the Forest Service personnel.[55] At that point DESCOM had 11 military and 48 civilians in South Florida, and DLA had 24 personnel on the scene. Most of these personnel worked in the main hub depot. The availability of personnel for the depot was not a problem as by that date DESCOM had a list 1,000 civilian volunteers ready to deploy to South Florida if needed.[56]

Accountability of supplies was an issue at the AHD since it, unlike the donated goods coming through West Palm Beach, dealt with Federal Government supplies that required accountability. This had been a problem during the period prior to the take over of the hub operation by the LSG, since the Forest Service had been unfamiliar with DOD forms and procedures, and it continued to be a problem during the first week in September. Eventually a modified personnel computer system based inventory system developed by the Navy Fleet Material Support Office was used. Additionally, an inventory management group worked with the available records to reconstruct records for the materiel that had passed through the AHD hub.[57] However, the absence of an Army supply Table of Organization and Equipment (TO&E) unit was felt in this area since it had been originally assumed that the 227th would have used a standard Army field supply system to automate the inventory, but such a system was unavailable when the unit was diverted to forward depots.[58]

Florida City Forward Depot. The first forward depot established by the LSG was the one in Florida City which, as the reconnaissance conducted by MG Arwood had indicated, was the most devastated region in the area. Moreover, as a trailer park community, its inhabitants probably had fewer monetary resources left to help support themselves. The 227th General Supply Company arrived in theater on Tuesday, September 1st at 0400, and by 1700 the same day MG Arwood directed it to proceed to Florida City to set up 14 General Purpose Medium tents, start to set up clamshell shelters [clamshells are discussed in more detail below], and to be operational by the following morning. They met this tasking, and by that next morning the

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[54]DESCOM submission on the AHD, 17 September 92.

[55]Script for AMC Operations Center Daily Briefing on Florida Relief Operations, 9 Sep 92.

[56]AMC Disaster Response Update, 9 Sep 92.

[57]AMC After Action Report, pp. E-3 to E-4.

[58]AMC After Action Report, E-2.

unit had received 6 truckloads of humanitarian supplies, placed the supplies in their tents, and were ready to issue supplies and support the area.[59]

The Florida City site turned out to have one significant disadvantage. It was too close to a tent city and as a result it quickly started functioning as a retail distribution site in addition to being a forward depot. The LSG responded initially by using sailors and marines to handle the retail side of the operation and then by transferring the site to the 10th Mountain Division on 6 September, which continued to use it as a retail distribution point.[60]

Homestead and Cutler Ridge Forward Depots. By 3 September the forward depot site at Homestead was operational. It too had been developed by the 227th General Supply Company which, after having set up Florida City, was ordered by General Arwood to split with half of the company going to the Homestead site to prepare it (the chronology of this is somewhat unclear but apparently the move of part of the 227th to the Homestead site took place on 2 September). Following that, the 227th General Supply Company segment which had prepared the Homestead Forward Depot was moved north to establish the Cutler Ridge Forward Depot site, near the Miami zoo, a site which had been selected on 3 September. By 5 September that site was also operational.[61] By 7 September it had received its first full load of supplies.[62]

Manning the Depot System

As had been noted earlier, the main hub had been manned by volunteers from DESCOM and DLA, and in the early days by personnel from the forest service as well. The forward depot system, however, was manned by regular troop units that were put under the operational control of the LSG. The first to arrive on the scene was the 227 General Supply Company which had arrived on the scene early in the morning on September 1st. After first being involved in operations in Hangar 22, the unit was moved to the forward area and established the Florida City, Homestead, and Cutler Ridge sites.[63] By 3 September the 226th Supply & Service (S&S) Company moved onto the Homestead forward depot site which was being developed by the

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[59]Darius interview with Arwood, 8 Sept 92.

[60]Script for AMC Logistics Support Group Hurricane Andrew Relief (Arwood Briefing) and notes of MG Arwood's comments at the 10 Sept 92 AMC staff meeting.

[61]Darius interview with Arwood, 8 Sep 92; Scripts for AMC daily briefings, 3 Sep 92, 4 Sept 92; AMC LSG CS submission to AMC Operations Center, 4 Sep 92.

[62]DCSLOG Special Interest Items, 8 Sept.

[63]Darius interview with Arwood, 8 Sept 92 and AMC After Action Report, p. W-7.

227th General Supply Company.[64] Personnel fills for those two companies, however, continued to come into the area until at least 8 September.[65] (The 226th Supply & Services Co. was augmented, at least for a period during the first days after its arrival, by a party of "60 Marines who were looking for work").[66] The 227th General Supply Company, in addition to establishing the three forward depot sites, manned the Florida City site until it was turned over to the 10th Mountain Division on 6 September and also manned the Cutler Ridge Forward Depot.[67]

In addition to the two supply companies, the LSG had OPCON over the 533d (medium truck) Transportation Company and the 365th (light truck) Transportation Company. The 365th Transportation Company began operations on September 2nd and the 533d began operations on September 4th.[68] They provided ground transportation of supplies from the West Palm Beach Fairground and the Humanitarian Depot Hub at the Miami International Airport to the forward depots in the south. Both Transportation Companies were based at the depot hub in Building 22, Miami International Airport.[69] The 533d Transportation Company, however, only had 60 percent of its authorized personnel strength and thus could only deploy with 33 of its authorized 55 vehicles, which made its ability to handle operations less than would normally be expected of such a unit.[70] By September 29th the 365th Transportation Company had driven a cumulative total 57,426 miles while the 533d Transportation Company had driven a total of 36,400 miles.[71] Also supplying ground transportation capabilities was a fleet of 28 commercial tractor trailers leased from Americana Expressways. This contract had been obtained by the Department of Transportation and the General Services Administration based upon a request from FEMA. The

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[64]AMC After Action Report, W-10.

[65]JTF ANDREW briefing as of 080300 Sep 92.

[66]Script for AMC Operations Center Briefing, 4 Sept 92.

[67]AMC After Action Report, p. W-12.

[68]Logistics Support Group (Provisional) Draft After Action Report, chart "Milage Driven," in section D.

[69]Arwood Briefing Script, slides 55-57.

[70]JULLS NUMBER: 50247-82785 (00115), TITLE: DEPLOYMENT OF "C4" UNIT. Submitted by USAMC-LSG, 1LT Blatt.

[71]Logistics Support Group (Provisional) Draft After Action Report, chart "Milage Driven," in section D.

contract was later passed to the LSG for control and administration until it expired on 5 October 1992.[72]

Also arriving in early September to become part of the LSG was the 80th Ordnance Battalion. The first week of the operation saw not only the arrival of four companies but also the rapid evolution of command and control (C^2) for them. Originally the companies were attached to the Army Forces (ARFOR) with Operational Control (OPCON) given to the LSG. This resulted in the AMC-LSG staff performing "both General staff and battalion staff functions, a tough role with limited assets." As a result, the 80 Ordnance Battalion was brought into the area, made OPCON to the LSG, and the four companies were then attached to the battalion. Its first element arrived on September 2 with the advanced party arriving on September 4 and the remainder of the unit arriving on September 6 and 7th on two C-5B flights. By providing provide command and control for the four companies assigned to the LSG, it relieved the LSG headquarters of troop command and administration tasks. By 9 September the 80th Ordnance Company was fully operational and located at the Cutler Ridge Forward Depot site.[73] At the same time, the LSG through coordination with the 1st COSCOM (Corps Support Command) obtained "an informal OPCON relationship with the 724th Main Support Battalion (MSB) at the West Palm Beach Truck Intercept Point." Thus the eventual C2 arrangement had the LSG, through the AHD, controlled a battalion (-) and four companies as well as exercising informal OPCON over a second battalion.[74]

By 15 September, which was the peak of the operation, the manning for the LSG was as shown in the following two charts.

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[72]AMC After Action Report, p. E-2.

[73]News Release, AMC LSG, Subj: "Fort Lewis soldiers help Florida Hurricane victims," 27 Sept 92.

[74]AMC After Action Report, pp. A-1 to A-2.

AMC Personnel in Support of Disaster Response			
Activity	**Military**	**Civilian**	**Total**
HQ AMC	7	6	13
AMCCOM	7	0	7
ATCOM	12	5	17
CECOM	9	0	9
DESCOM	10	48	58
MICOM	4	2	6
TACOM	6	2	8
TECOM	2	0	2
TMDE	9	0	9
LAO	0	15	15
Command Total	66	78	144
Source: AMC Disaster Response Update, 15 Sep 92.			

Other Personnel in Support Of Disaster Response For LSG Operations			
Activity	Mil	Civ	Total
LAO (XVIII Airborne Division)	1	1	2
DLA	15	6	21
Contractors	0	7	7
DA DCSLOG	1	0	1
FORSCOM	1	0	1
80 OD Battalion	71	0	71
226 GS Co.	90	0	90
227 S&S Co.	123	0	123
365th Trans. Co.	131	0	131
533D Trans. Co.	79	0	79
*724th MSB	399	0	399
Total Other	911	14	925
*Although not OPCON to the LSG, the 724th Main Support Battalion at West Palm Beach was an integral part of the LSG. It should be noted that its manning greatly understates the actual manpower required at the main truck intercept point since that site was state run and manned by numerous individual volunteers.			
Source: AMC Disaster Response Update, 15 Sep 92.			

Depot Equipment

Tents and Shelters. A variety of shelters were required for troops, people who had lost their housing, and supplies in the area. AMC was responsible for partially supplying this need, and the LSG was also one of the elements which required such shelters. DLA was the primary provider of tents, sending 2,250 Army-owned medium tents from its depot in Ogden, Utah. AMC shipped its entire stock of war reserve medium and large tents to Florida, shipping 370 medium tents from Lexington and Pueblo Army Depots and also shipped 259 large tents from

Lexington and Sharpe Army Depots. This virtually depleted the Army's stock of medium and large tents, leaving only 134 medium tents at the DLA depot in Ogden, Utah in reserve.[75]

Clamshell shelters were large (75 foot x 189 foot x 31 foot) rapidly erectable steel trussed, cloth covered structures that when erected would provide significant covered dry working spaces.[76] They were a valuable adjunct to the depot operations, providing a considerable amount of covered storage space. The need for clamshells was seen early in the operation, and on 27 August ATCOM had sent warning orders for and by August 29th had ordered clamshells to be shipped to the area of operations. On 31 August ATCOM sent three of its technicians and one DynCorp employee on contract to ATCOM to assist in the erection of the clamshells. They remained in the area of operations for the next three weeks.[77] The actual erection of the clamshells took longer than General Arwood desired, primarily because a dedicated crew was not fenced off and permitted to work only on erecting a clamshell. This had been a problem during Operation Desert Shield and continued to be a problem in South Florida.

MAJ Austin: We've been working two days [to erect a clamshell].

MG Arwood: Two days. As far as I'm concerned, it should go up in 24 hours.

MAJ Austin: Yes sir, but I don't think the effort was made -- that happened in Saudi.

MG Arwood: We didn't make it happen in Saudi; we didn't make it happen down south. What we are learning, as I talked to that technician down there -- he's from ATCOM; he's one of our people down there -- is I want to be able in the exercise to go back and say, "Okay, if you move a clamshell into an AO [Area of Operations], this is what you need: you need the technician, that's a smart guy that says, 'Where are you driving things? How are you doing this?'" Go through the routine and we actually should write that down, which we haven't done yet, and then, it says we need 15 dedicated soldiers to do it, and we've got to be on the ground and get the mentality that we take 15 soldiers and say they're

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[75]HQDA DCSLOG briefing charts, 8 Sept 92.

[76]Ibid and Howard K. Butler, *U.S. Army Aviation and Troop Command Support to Task Force Andrew 1992*, p. 32.

[77]Col Bennett, ATCOM Chronology of Events, 22 Sept 92.

> untouchable for anything else until that thing gets up. Get the technician and go to work. And then get the thing [inaudible] down.[78]

By 7 September all 8 clamshells had arrived in theater and two had been erected and two more were in the process of being erected.[79] By 10 September the 82nd Airborne Division had one at its Corps Support Command (COSCOM); Homestead Forward Depot had four with one on hold and one being erected; and the Cutler Ridge Forward Depot had 3, with one on hold and one being erected.[80]

The lessons learned from this operation stated the need to have clamshell shelters available as soon as possible to provide protected storage space.

> During this disaster relief operation, large amounts of donated items quickly filled available overhead storage areas. Excess items were required to be placed outside. Placing these items outside exposed them to bad weather and possibly caused further unwanted damage to food items and clothing. The need to have clamshell shelters erected early in disaster operations is a must to prevent more damage to critical items. Clamshell shelters provide excellent overhead protection as well as additional storage space.[81]

In addition to clamshells, a number of Sprung shelters were available but were not sent into the area of operation. They had dimensions of 60 feet by 120 feet but they required 5 days, at 8 hours per day, to erect.[82]

Forklifts. Forklifts were critical to the LSG mission since they were used to move the supplies within the humanitarian depot facilities. The forklifts used in this operation, however, were not fully appropriate for the conditions they faced. The lessons learned included the need to use a commercial forklift capable of accessing second story warehouse space, which the standard Army forklift could not do. At the same time another lesson learned noted that commercial warehouse forklifts used during the operation had tires that were designed for use on smooth warehouse floors and those tires were easily damaged on the rough surfaces found

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[78]Darius interview with Arwood, 8 Sept 92 [Cutler Ridge Site].

[79]HQDA DCSLOG briefing charts, 8 Sept 92.

[80]AMC After Action Report, p. W-15.

[81]JULLS NUMBER: 21126-81122 (00092), TITLE: CLAMSHELL USAGE. Submitted by USAMC-LSG, MAJ Brown.

[82]HQDA DCSLOG briefing charts, 8 September 92.

HURRICANE ANDREW RELIEF OPERATIONS

Clamshell Shelters

in the clamshells at the Forward Humanitarian Depots. Although military equipment was adapted for such conditions, the forklifts were too large for optimum use in crowded warehouse space. It was recommended that Air Force forklifts with oversized tires be identified for use during such contingency operations.[83]

Mature LSG Structure

The mature structure of the Army Humanitarian Depot system by mid-September 1992 was as follows. Commanding the LSG was MG Arwood. His Deputy Commander was Brigadier General James W. Monroe, TACOM's Deputy Commanding General for Systems and Logistics, who arrived in Florida on 30 August. General Monroe became the Commander of the LSG on 9 September following the return of MG Arwood to HQ AMC.[84] Beneath the LSG was the DESCOM run Humanitarian Depot, originally commanded by LTC Richard Hall and by mid-September by Colonel Patrick Kirby. The components of the depot system were the Miami International Airport Humanitarian Depot, the hub depot, manned by personnel from DESCOM and DLA. Under OPCON to the Depot Commander was the 80th Ordnance Battalion. Attached to the Battalion was the 226 Supply and Services Company stationed at Homestead Humanitarian Depot, the 227 General Supply Company stationed at Cutler Ridge Humanitarian Depot and also in part stationed at the Tamiami Truck Consolidation Point. Also attached to the 80th Ordnance Battalion were the 365 (light truck) and 533 (medium truck) Transportation Companies A part of the depot system but not formally under the control of the AHD was the 724th Main Support Battalion and an Engineer unit attached to it which operated in general support of Joint Task Force Andrew at the Florida-run West Palm Beach Truck Intercept Point. This site was also manned by a large number of civilian volunteers.[85]

The command and control relationships between the LSG and the 80th Ordnance Battalion and its attached companies was apparently not formally established by the JTF until a mid-September message that, however, acknowledged that it was merely clarifying command relationships that had been in effect since 3 September 1992.[86]

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[83]JULLS reports in TAB E of the Logistics Support Group (Provisional) Draft After Action Report.

[84]TACOM interim After Action Report on Operation Disaster Response.

[85]Charts in Section A of the Logistics Support Group (Provisional) Draft After Action Report. The discussion of the contract for commercial tractor trailers is found on page E-2 of the above report and in page E-2 of the AMC After Action Report. The role of the transportation companies is specified in the Arwood Briefing Script, slides 55-57.

[86]FRAGORD CJTF ANDREW...031.

HURRICANE ANDREW RELIEF OPERATIONS

Humanitarian Depot System Organization

AMC LSG IN

227th General Supply Company

HURRICANE ANDREW RELIEF OPERATIONS

Homestead Forward

AMC LSG IN

Homestead Humanitarian Depot Early in the Operation

HURRICANE ANDREW RELIEF OPERATIONS

Cutler Ridge Humanitarian Depot Early in the Operationt

AMC LSG IN

Cutler Ridge Humanitarian Depot Later in the Operation

HURRICANE ANDREW RELIEF OPERATIONS

BG Monroe, Deputy Commander of the LSG

Supply Operations

The AMC After Action Report summarized the flow of supplies through the mature LSG system.

> Control of this massive distribution system for donated goods quickly evolved into a modified push-pull combination system. The system hub at Hangar 22 included a movement control center whose primary function was to obtain requirements from the forward sites and direct shipments of material from West Palm Beach to the forward sites. The material was classified only by categories such as food, baby products, personal hygiene, etc. The only unit of issue used for wholesale distribution control was pallet. Therefore, as the system became fully operational, it appeared as a pull system to West Palm Beach as they shipped material forward at the direction of the hub at Hangar 22. The same system appeared as a push system to the forward sites at the City Zoo [Cutler Ridge] and Homestead as they received the shipments directed by the hub at Hangar 22. The function of the hub was to match requirements at the forward sites (based on reports of items in demand and on hand quantities) to available material at the truck intercept point (based on reports of on-hand quantities), coordinate transportation assets, and direct movement of material to the forward sites.
>
> This system was highly effective and successfully moved critically needed supplies into the disaster area to meet the immediate needs of the victims and prevented the donated items that were not immediately needed from clogging the distribution system.
>
> All Federal supplies were kept separate from the donated goods. The Federal supplies were received, stored, and issued from Hangar 22. Most of the Federal supplies were shipped on the first weekend before the LSG team arrived in Florida. Most of it was received during the first week of operations at MIA . . . . The release authority for this material was the 2d MMC [Materiel Management Center] of the lst COSCOM [Corps Support Command]. During the first week, record keeping was very difficult due to the large volume of material being received by the Forest Service with no existing standard system in place to handle the transactions. After the first week a customer service team was in place and all issues and receipts were documented on DD Forms 1348-1.[87]

[87]AMC After Action Report, pp. E-2 to E-3.

The various humanitarian depot sites were busy locations with goods constantly coming and going out of them. The emphasis was on pushing goods out to the troop units so they could be issued to those who needed them, not to store or stockpile goods. As of mid-day on 1 October 1992 the main depot hub had received 500 tractor trailer loads and had shipped out 511. Through mid-day on 4 October 1992 Homestead Forward Humanitarian Depot had received 795 tractor trailers and had shipped out 551. Through 23 September The West Palm Beach Truck Intercept Point had received 799 tractor trailers and had shipped 1,038. By the same date Cutler Ridge had received 277 tractor trailers and had shipped out 126.[88]

Special treatment was developed for the storage and issue of Class IV (Construction Materiels). Following several days of discussion, the LSG and the Corps of Engineers agreed on 6 September to use the Homestead Depot as the single depot for Class IV materiel. A system was established to identify Class IV items being donated at the West Palm Beach Fairgrounds site, and those items together with government Class IV material were sent to the Homestead Forward Depot. Engineer personnel at the Homestead site would assist with the identification and storage of Class IV materiel as well as control its release. Such construction materiel was being obtained through donations flowing through the West Palm Beach site, through the Red Cross, and through contracts let by the Corps of Engineers. Upon receipt at Homestead it was issued through the Red Cross to designated agencies, to engineering projects, and through the distribution points to troop units for distribution to individuals in the impacted area.[89] By 8 September AMC was reporting that the Class IV Yard was actively pushing its stocks out to the forward points and that despite receiving large shipments its stocks were nearly depleted. In addition, the Corps of Engineers was already working on a contract to have the Class IV Yard operations taken over by a civilian organization.[90]

Construction supplies were especially important in the second or recovery phase of the relief operation as people started repairing the physical damage done to their homes and shops. By 29 September, the status of some of the key construction supplies was as shown in the chart.

Another important supply element which received special treatment was the food for the tent cities. This food was airlifted from a Navy supply ship direct to the tent cities and bypassed the Humanitarian Depot System.[91]

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[88]Charts in section D of the Logistics Support Group (Provisional) Draft After Action Report.

[89]Chronology of AMC Engr Actions/Events, and attached slides.

[90]Script for AMC Operations Center Briefing, 8 September 92.

[91]Darius and Leventhal interview with Aldrich.

Key Construction Supplies Status 29 September 1992		
Item	Amount Received	Amount Due In
Plywood Sheets	71,100	16,000
Dimensional Lumber (each)	39,703	77,000
Furring Strips (each)	583,750	0
Source: Logistics Support Group (Provisional), Draft After Action Report, section "V."		

By 1 September, a constant flow of supplies was already well under way, as a number of shipments had been received or were in route from various DESCOM depots. Tonnage reported by that time totalled 400 short tons. AMC taskings as of this date for disaster relief included: 16,500 cots, 7 clamshell shelters, 13 K-Span Shelters (on hold by DA), 12 Sprung shelters (from contractors), 200 generators, 500 light sets, approximately 3,000 GP Medium Tents (AMC was shipping 376, DLA 2,500, and AMC was providing an additional 256 large tents, 14 refers, 60 water trailers (400 gallon capacity), and 375 batteries for radios. Within a day or so, DESCOM supplies included generators, shelters, cots, Reverse Osmosis Water Purification Units (ROWPUs), kitchens, and light sets.[92] By 30 August, DLA depots had already shipped 2,250 tents; 100,000 blankets; 37,000 cots, 7,500 plastic water cans; and 600,000 Meals Ready-To-Eat (MREs).[93]

Some of the requirements were for items that did not immediately come to mind, and from sources that one might not immediately think of. General Arwood recalled that

> We discovered on day two -- whatever it was -- I think the second day, that we're giving [out] a lot of canned goods. All of a sudden it came to our attention because a little lady [who] was coming through turned to one of our great soldiers and said, "You don't have a can opener do you?" And it suddenly came across, they don't have any can openers. So we had a call coming in [that they] don't have can openers. So we immediately, with our Depot System, called GSA and said I want 25,000 can openers and I want them delivered tomorrow morning and they had them rolling in 24 hours. So we put them down there for when we give out cans.[94]

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[92]AMC After Action Report, pp. W-5 to W-6. Tents and other shelters are discussed in more detail elsewhere in this study.

[93]AMC After Action Report, p. W-4.

[94]Darius interview with Arwood, 8 Sept.

An additional 10,000 can openers were obtained from the Army Air Force Exchange Service (AAFES).[95] GSA was also involved in obtaining 35 gallon trash bags for the massive clean up operation. The LSG ordered 500,000 of them from GSA through DLA, and received the initial shipment of 10,000 within twenty-four hours.[96]

The overriding goal of the humanitarian depots, to ensure all their supplies flowed into the hands of disaster ravaged inhabitants of South Florida, was summed up by BG Monroe on a visit to Cutler Ridge in which he engaged in the following dialogue with an unidentified officer:

> BG Monroe: What do you think my intent is? What do you think I want you all to do? ... What direction should you be taking now, in managing these supplies? Should you be receiving more in, than you're getting out, or vice versa?
>
> Unidentified Officer: Getting it out as fast as we can. The right stuff to the right place, when they need it.
>
> BG Monroe: Why?
>
> Unidentified Officer: That's what we're here for.
>
> BG Monroe: Okay, suppose there's stuff in your depot that COSCOM and the divisions didn't ask for.
>
> Unidentified Officer: We'd advertise it. Maybe they didn't know we had it.
>
> BG Monroe: Okay. Suppose once they know you have it, they still are not asking for it. What do you think my intent is? ... Market. Get it out on the streets. Put it on trucks. Why? Because we need to get it to the folks who need it. We need to keep our depots low. We need to dry out our West Palm Beach. The objective is not to have full depots. The objective is to have empty depots. This is donated supplies. We don't go ask for what we get. So we've got to keep moving to the extent that we can physically do it. Get all of the donated stuff down to the hands of residents.[97]

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[95]Script for AMC Operations Center Briefing, 3 Sep 92.

[96]Darius interview with Arwood, 8 Sept 92.

[97]Darius interview with Monroe.

AMC LSG IN

The extent of the LSG supply operation was summed up in some briefing charts on 3 October. Perhaps the key measure of achievement was the fact that the LSG reduced the donated good stockage from a high of 7,296 short tons to 421 short tons in only 17 days. This was the key measure of achievement because there were always plenty of donated goods being sent into the area, the problem was unclogging the distribution system to get the donated supplies into the hands of those who needed them. To accomplish this the LSG had processed over 79,000 short tons since 1 September. Overall, "THE LSG HAS HANDLED ENOUGH MATERIEL TO SUPPLY A HEAVY DIVISION WITH ALL CLASSES OF SUPPLY (LESS CL III/V[98] FOR 121 DAYS!!" The plywood received and issued by the LSG totalled 86,000 sheets, enough if placed side by side to reach from Miami to Key West Florida and enough if stacked on top of one another to make a pile .8 miles high. In addition, the hub depot at Miami International Airport managed an inventory worth over $35 million, a significant part of which was later returned to the Federal supply system during the reconstitution and close out phase of the operation. The LSG had further initiated loan or lease contracts worth in excess of $500,000. Finally, an item MG Arwood had been especially proud of, the LSG had become fully operational within 150 hours after its first elements had arrived in Miami.[99]

The LSG did note, however, a significant structural problem in using the DOD supply system for such humanitarian ventures. There was no single DOD standard system to control supply operations. While each service/agency had a system that flows from the source of procurement to the ultimate consumer, those systems were not designed to support disaster relief operations. Existing systems were basically structured on a pull system, where a customer identifies a requirement by submitting a request that flows up through the system, followed by a flow of supplies against that requirement to the user. Disaster relief is a push system driven from the top down, and does not conform to the standard DOD accountability requirements down to the consumer.

To solve this problem, basic policy decisions had to be made with regard to accountability, to include actual hand-off on supplies and equipment to the civilian sector. Based on those policies, a lead agency (most probably within DOD) needed to develop a software program to accommodate that need. It should be PC-based, real time and self sustaining with communications links. It needed to interface with the supporting wholesale system and should reach to the lowest level of required accountability before transfer to the civil sector. It should also automatically generate proper documentation for the various functional aspects of the

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[98]Class III was petroleum, oil and lubricants and class V was ammunition.

[99]LSG Briefing charts dated 3 Oct 92.

operations (e.g., transportation movement control documents), and contain the appropriate financial management data base.[100]

LSG Operations Other Than the Humanitarian Depot

Although the bulk of the work performed by the LSG was the operation of the Humanitarian Depot system, other AMC elements were active in the area and controlled by the LSG.

TMDE

A Test, Measurement, and Diagnostic Equipment (TMDE) unit was deployed to the area in early September when the 24th Area TMDE Support Team (ATST) from Fort Stewart, Georgia, arrived on the scene on September 7th and 8th. ATST 24 was set up at Opa-Locka Coast Guard Air Base which was central to potential customers and was also the base for most of the Army aviation used in the relief operation.[101] The unit was ready to accept customer equipment for calibration or repair by 11 September, and by 2 October they had received 82 TMDE work requests.[102]

Although the mission went well, a number of issues did surface. The Logistics Assistance Officer noted that making the TMDE team responsible to him was unnecessary since the relationship between Logistics Assistance and TMDE was indirect. He suggested that in this operation it should have been attached to the 80 Ordnance Battalion. In larger operations the TMDE units would have deployed with the divisions that they normally supported and would have reported to a TMDE Battalion.[103] A TMDE Battalion was part of the concept of operation for the LSG but had not been needed or included in the tailored LSG used for Hurricane Andrew relief.[104]

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[100]JULLS NUMBER: 10802-70590 (00033), TITLE: INFORMATION MANAGEMENT. Submitted by LOG OFCR REP, COL Kirby.

[101]For Army aviation use of the base, see AMC After Action Report, p. H-1.

[102]Msg, CDR USATSG to AMCLSG and AMCHO, 171200EST Sep 92 Subject: Input for After Action Report (AAR) for Operation Disaster Response (ODR).

[103]JULLS NUMBER: 10809-64134 (00047), TITLE: LAO AND TMDE. Submitted by LOG OFCR REP, LTC Malcom.

[104]Logistics Support Group (Provisional) Draft After Action Report, section A (Logistics Support Group Structure (Concept)).

AMC LSG IN

TMDE Technician

AMC recommended that in operations of this size a TMDE unit be sent earlier, noting that TMDE support was not available until C+15. This absence was especially important for aviation units.[105] The commander of the TMDE unit, however, noted that many units had failed to bring their test, measurement, and diagnostic equipment units with them due to the perception that it was a short term deployment and that the humanitarian effort would require little technical work. As a result, she recommended that mission requirements should be identified prior to deploying TMDE support assets and that the option of sending equipment requiring TMDE work to a pre-existing facility be considered. She also recommended that consideration also be given to tailoring a smaller TMDE team for such a mission.[106]

Army Oil Analysis Program (AOAP)

The Army Oil Analysis Program analyzed samples of oil from both air and ground equipment to detect developing engine or transmission problems. The establishment of such a facility in support of the Hurricane Andrew Relief operation was slow in coming. At first the 82nd Airborne Division shipped oil samples back to its home station, but the need for a local program arose upon the deployment of the 10th Mountain Division which was too far from its home station in Camp Drum in upstate New York to provide AOAP services in that manner. On 10 September it was decided to use the Jacksonville, FL, Air National Guard (ANG) AOAP laboratory for AOAP of the task force airplanes. That laboratory, however, was unable to provide AOAP services for ground equipment or for fuel samples due to a lack of manuals and equipment. The decision to use the Jacksonville ANG laboratory came so late in part because of a delay of over a week in deciding if a mobile Army AOAP laboratory would be sent to the area. One of the lessons learned submitted by AMC recommended that the Materiel Readiness Support Activity (MRSA) and Forces Command develop a model to decide when such a laboratory should be deployed into an area.[107]

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[105]JULLS NUMBER: 10805-74855 (00039), TITLE: LATE ARRIVAL OF TMDE. Submitted by LOG OFCR REP, LTC Malcom.

[106]JULLS NUMBER: 21176-18072 (00087), TITLE: TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE). Submitted by USAMC-LSG G3, CW3 Jordan.

[107]JULLS NUMBER: 10809-94025 (00048), TITLE: LAO AND AOAP. Submitted by LOG OFCR REP, LTC Malcom. In another lessons learned it was suggested that a AOAP mobile laboratory be deployed whenever a division size force with aviation deployed. See JULLS NUMBER: 10805-89471 (00040), TITLE: LACK OF AOAP (ARMY OIL ANALYSIS PROGRAM). Submitted by LOG OFCR REP, LTC Malcom.

Logistics Assistance Program

The Logistics Assistance Officer (LAO) from the 82nd Airborne Division was released to the LSG to become the Chief of the Logistics Assistance Program and the Army Forces Logistics Assistance Office. The Logistics Assistance program worked well, although the LAO was delayed in deploying with the 82nd Airborne Division on August 27 because he could not get a release or orders from AMC. The delay, however, was not great since the LAO volunteered to take a logistics assistance team into the area of operations on the morning of the August 28th and arrived on the scene by the evening of the 29th of August. By the evening of 31 August the LAO had called forward 11 Logistics Assistance Representatives (LARs) to form a Logistics Assistance Team. By 1 September the team consisted of 15 people and it had expanded to 18 by 4 September. In addition, 7 contractor personnel from GTE who helped maintain the mobile subscriber equipment had arrived to assist the 50th Signal Battalion. Although not part of the LAO team, the team was prepared to assist them as needed. The LARs involved in the operation came from CECOM, ATCOM, and TACOM. The ATCOM personnel included specialists in UH-60, OH-58, and CH-47 helicopters as well as a number of ATCOM personnel who supported all ATCOM troop support equipment. TACOM personnel also supported all TACOM equipment in the area, while CECOM had specialists in the Single-Channel Ground and Airborne Radio System (SINGARS), Multiple Subscriber Equipment (MSE), Switch, Tactical Communications Satellite (TACSAT), and general communications.

The program had some organizational issues that remained unresolved during the operation.

> The direct relationship between the LAO and unit supported never materialized. For example, the LAO team in support of ANDREW was: LAO-JTF: or LAO-ARFOR? or LAO-LSG?

The Logistics Assistance Officer also noted that "the LAO should not be considered a part of the staff, but a functioning unit reporting directly to the CG LSG." To some extent this separation of the LAO from the LSG was created by having the LAO Operations Center set up in a hotel separate from the LSG headquarters; however, the LSG organization charts showed it both as a separate organization and as part of the LSG staff.[108]

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[108] Logistics Support Group (Provisional) Draft After Action Report, charts in section A, p. K-1, and chart, LAO Task Organization, in section K; JULLS NUMBER: 10803-77480 (00035), TITLE: DEPLOYMENT. Submitted by LOG OFCR REP, LTC Malcom and JULLS NUMBER: 10807-39747 (00045), TITLE: LAO AND LSG. Submitted by LOG OFCR REP, LTC Malcom; and Memo, LAO to Chief of Staff, USA LSG, Subj: Summary of Events to Date (revised from 6 Sep 92), 12 Sep 92.

HURRICANE ANDREW RELIEF OPERATIONS

CECOM LAR

The logistics assistance program had deployed to Florida to support all the troop units, not primarily the LSG units. Nevertheless, the highest priority item for the Logistics Assistance Representatives (LARs) were forklifts, which were described as "the pacing item for this operation." A LAR noted that some of the units needed more help than usual because they were working on equipment such as forklifts which they were not familiar with. The LARs also helped track down sources for contract maintenance and supplies for the commercial forklifts being used in the operations. Another problem area during the operation was tire damage due to unrepairable side wall punctures caused by operating in debris strewn areas. A warning about this issue was sent to TACOM on 2 September. Some problems were also noted with the Mobile Subscriber Equipment but they were attributed primarily to user lack of familiarity with the equipment.[109]

Reconstitution

The reconstitution phase of the humanitarian relief operation consisted of "the reestablishment of public services under the control of non-DoD, Federal, State, and Local governments while JTF ANDREW is disestablished."[110]

Transition Plan

AMC's planning for the transition to civilian control started quite early in the operation. The LSG commander had requested that AMC establish a transition planning team, and by 7 September such a team had been established and was in place in Florida gathering data. The members of the team were deliberately chosen to meet a number of criteria: the team was to be a mix of personnel from the LSG and from the home stations; members of the team were also chosen with a view to their ability to help expedite staffing of the transition plan through three critical AMC offices--the DCS for Logistics, the DCS for Resource Management, and the Office of the Command Counsel. The team included a wide variety of knowledge including personnel with expertise in legal, resource management, and property accountability fields as well as a Navy logistician from the Defense Logistics Agency (DLA), an AMC Chaplain with organizational planning and effectiveness training, and representatives of both AMC's Internal

[109]Memo, LAO to Chief of Staff, USA LSG, Subj: Summary of Events to Date (revised from 6 Sep 92), 12 Sep 92 and press release, AMC LSG, "Experts help troops help Florida hurricane victims," 27 September 1992.

[110] Briefing Slides, Joint Task Force Chief of Staff Briefing, 12 Sep 92, Tab O of Transition Team Executive Summary Book.

Review and Audit Compliance Office and the Army Audit Agency.[111] The team members were Colonel Thomas Bryant (Team Chief) from AMC's DCS for Ammunition, LTC Thomas Manning from AMC's Office of the Chaplain, Commander John Yalch from DLA, Major Michael Agogino from AMC's DCS for Ammunition, Major William R. Medsger from AMC's Office of the Command Counsel, Mr. Thomas Gajda from AMC's DCS for Resource Management, Mr. Dale W. Green from AMC's Office of Internal Review,[112] and Mr. Oleksak, from the Army Audit Agency.

The team worked on a tight schedule. Starting on 7 September they spent 5 days in Florida to observe operations, gather data, and met with the Joint Task Force and LSG personnel.

> The team had a short time to evaluate the situation and prepare the OPLAN [Operations Plan]. Identification and activation of the team early in the relief effort were key factors since it started it's [sic] mission at the same time JTF ANDREW began it's [sic] planning for transition. This team used five days for on-site assessment. This included briefings and discussions with LSG and JTF ANDREW command and staff as well as observation of actual operations of the whole system. The team required transportation throughout the area of operations and cooperation from those interviewed. It received outstanding support.
>
> The team located at building 22 Miami Int'l Airport. Teamwork quickly developed that optimized the skills of the members. Each evening members discussed findings, determined ongoing needs and assigned tasks for the next day. The team chief continued to interface with LSG staff, provided briefings and kept the team focused on the task. Termination of the five day on-site assessment was based on consensus that the group had an adequate understanding of the AHD system in order to do its work at HQ AMC.[113]

The team then went back to HQ AMC to complete its work. The decision to complete the plan in Virginia rather than Florida, despite the fact that the move took an entire day out of a very tight schedule, was based upon the fact that the transition plan would require extensive coordination with HQ, AMC, its MSCs, DLA, and HQDA, while the good communications

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[111]Transition Team Executive Summary in Transition Team Executive Summary Book and JULLS NUMBER: 21178-90783 (00088), TITLE: AMC TRANSITION TEAM - COMPOSITION. Submitted by USAMC-TRANS TEAM, MAJ Agigino.

[112]Briefing slide in TAB A of Transition Team Executive Summary Book.

[113]Transition Team Executive Summary in Transition Team Executive Summary Book.

between the AMC Emergency Operations Center and the Logistics Support Group, maintained by data link, voice, and fax facilities, provided continued contact as needed with the LSG. The transition team was also aided by the fact that it received a draft of the Joint Task Force transition plan, JTF ANDREW OPLAN Gold shortly before leaving Florida.[114] AMC validated this decision as to the appropriate operating location for the transition team in its Joint Universal Lessons Learned System (JULLS) reports and recommended having the transition team work in the field to gather information for only a short period of time and then complete its work at the AMC Operations Center.[115]

Upon arriving at HQ AMC, the transition team presented its preliminary transition concept to the AMC staff and Major General Johnnie E. Wilson, the AMC Chief of Staff, at a staff meeting. MG Wilson and key staff members then briefed GEN Ross, and he approved the plan. The basic concept for the transition plan, which remained unchanged as the plan was further developed, was for a four-stage transition to civilian control in which the AHD operations would be run by local government using civilian contractors to perform the actual work. Phase I consisted of preparation for the transition. This was of course already underway and would continue until the actual signing of a contract for a civilian contractor to take over the operation. Phase II would be the integration phase in which the Army AHD and contractor operations would be run in parallel. This parallel operation would ensure that the contractor was capable of fulfilling the needs of the population and that the relief operation did not suffer due to a failure of services during the actual transition to civilian contractor control. Phase III would be the actual transfer of full operations to the contractor and the turn in of government equipment. It was envisioned, however, that some government equipment might have to be lent for an extended period of time to the government agency or contractor that took over the AHD operations. Phase IV would be the actual departure of the Army from the scene, although some selected staff would still remain to assist in the transfer.[116]

This concept was included in the draft plan which was then circulated in HQ AMC and faxed to the MSC's on 16 September for comment and concurrence. The was staffed within three days, in large part because the AMC Chief of Staff, MG Jonnie Wilson, sent a "personnel for" message to the AMC staff and all MSC commanders soliciting their support of the transition

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[114]Transition Team Executive Summary in Transition Team Executive Summary Book.

[115]JULLS NUMBER: 90226-89443 (00090), TITLE: AMC TRANSITION TEAM - OPERATING CONDITIONS. Submitted by USAMC-TRANS TEAM, MAJ Agigino.

[116]AMC Staff briefing, 15 Sept 92.

team efforts and noting that "this effort has the CG's personal interest."[117] Following review and incorporation of comments, on 24 September the OPLAN was signed and distributed locally in Florida by the LSG and on 25 September the transition plan was signed by the AMC Chief of Staff as AMC OPLAN 92-2 and distributed.[118]

The final version of OPLAN 92-2 followed the basic concepts that had already been established. It established a four-phased transfer of AHD functions from the military to civilian organizations, while stressing the transfer

> of all depot functions (less hangar 22 functions) from the wholesale level down to the consumer distribution sites. Maintain strict property accountability throughout the operation. Collect financial cost data for reimbursement IAW [in Accordance with] Annex A. Do not interrupt relief operations.[119]

The four phases were basically unchanged from the original concept briefed to the AMC Chief of Staff, although phase IV was now designated as Disengagement, and it was noted more specifically that different units and organizations would disengage at different points in the transition.

The OPLAN clearly distinguished between the roles of the LSG and the AHD Command in the transition. In phase I the LSG would be concerned with preparing and coordinating scope of work statements for the follow-on relief organizations if that was necessary. It was anticipated that the West Palm Beach Truck Intercept Point would be the first LSG-related facility to be closed, and when that occurred the LSG would be responsible for releasing operational control of the 724 MSB to the Joint Task Force. The LSG was also to reconcile the AHD records with those of the National Inventory Control Points and to prepare procedures for and assist in the return of surplus equipment back to permanent depots. The AHD in phase I was to continue to maintain accountability of DOD and other Federal supplies going into or out of the AHD system, prepare to receive supplies being returned by departing units, prepare to

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[117]Msg, AMCCS to MSC Cdrs, 121630Z Sept 92, Subj: Army Humanitarian Depot Operations; Memorandum, TECOM Director of Readiness to AMCOC-LG, subj: AMC OPLAN No. 92-2, 18 Sept 92; and JULLS NUMBER: 90226-70702 (00089), TITLE: AMC TRANSITION TEAM - COMMAND RELATIONSHIP. Submitted by USAMC-TRANS TEAM, MAJ Agigino.

[118]MEMORANDUM, AMCLSG-RE, Subj: AMC OPLAN 92-2, 24 Sep 1992; MEMORANDUM, AMCCS, Subj: Letter of Transmittal - AMC OPLAN 92-2; and AMC Control and Routing Slip, Subj: AMC Transition OPLAN, 25 Sept 92.

[119]AMC OPLAN 92-2, para 3a.

release contracted line haul support back to the contractors when no longer required, and prepare to begin transition operations.

In phase II the LSG was to monitor the Humanitarian Depots and assist them as necessary and was to maintain responsibility over the distribution system until the contractor or substitute system assumed full performance. The AHD was reconcile accountable records and, if necessary, transfer the accountability for government furnished equipment and materiel to relief organizations.

In phase III the LSG was merely to continue to monitor and assist the Humanitarian Depots while the AHD was to continue to receive unneeded Federal supplies from the area of operations, i.e., units and forward humanitarian depots, and to prepare the movement of unneeded Federal supplies back to the wholesale depots.

In phase IV the LSG would release units that were OPCON to it back to the JTF for disposition or return to home station, and retain a select staff to ensure the reconciliation and accountability of DoD equipment. The AHD was to help organize a composite unit to prepare and ship Federal supplies back to the NICPs (National Inventory Control Points) from AHD Hanger 22 and its units were to prepare for movement to home station.[120]

The OPLAN also contained a variety of appendices to assist in the performance of the various tasks it specified. The Appendix on financial management dealt with record keeping to obtain reimbursement from FEMA and to reconcile AHD and National Inventory Control Point records. The Appendix dealt with procedures for loaning government furnished equipment and supplies to follow-on civilian relief organizations, procedures which HQ AMC had been tasked by JTF Andrew's OPLAN GOLD to furnish to the members of JTF ANDREW. It also dealt with the procedures that departing units would use to return assets to the AHD and with transportation and movement control procedures for departing units, which information largely duplicated that found in the JTF's OPLAN GOLD.[121]

The LSG had noted in its JULLS reports that pre-existing guidelines for the transfer of government equipment to state and county authorities did not exist, which meant that they had to be written, published and distributed in the midst of the operation. It recommended that in the future such guidance be available before the start of the operation.[122]

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[120]AMC OPLAN 92-2, para 3.

[121]AMC OPLAN 92-2, Appendices A through E. For the data from JTF OPLAN GOLD, see JTF OPLAN GOLD, para 3B(1)(a)(4) and Appendix 3 to Annex D.

[122]JULLS NUMBER: 33102-56798 (00073), TITLE: TRANSITIONING OPERATIONS/EQUIPMENT. Submitted by USAMC-LSG G3, MAJ Eledui.

During the transition team's briefing to the AMC Chief of Staff on 15 September the briefer had noted that since steps towards the transition were already being accomplished on the scene, the transition plan would have to be speedily completed if it were to not be overtaken by events.[123]

Preliminaries to Transition in Florida

In fact, some of the key elements of the transition plan had already taken place before and during the period that the transition team was developing its plan. This period saw the start of work on developing Statements of Work (SOW) to be used as the basis for contracting out much of the Army's relief work to civilian contractors operating under local civilian government control. In the period from 6 to 8 September the LSG had prepared and priced a statement of work that could be used to contract with civilian contractors for the receipt, storage and distribution of donated goods.[124] This SOW was for both the LSG portion of the relief effort and for the retail distribution points managed by troop units. Specifically, the SOW stated that the

> Services to be provided include operation of one or more control warehouses for receipt and storage of inbound donated relief supplies of all non-perishables and semi-perishable types; timely surface movement of demanded goods to disaster area retail distribution facilities; operation of multiple retail distribution facilities, including responsive issue of goods to individuals and relief organizations; maintaining, documenting and providing constant visibility of types and quantities of goods on hand at warehouses and retail facilities.[125]

By 7 September the Assistant County Manager for Dade County, Mr. Clemente, had agreed to accept responsibility for contracting for the management, storage, distribution and disposal of donated goods, that is, for the work being done by the LSG other than the supply functions for DOD supplies and equipment. He had also agreed to take over contracting for the operation of the Life Support Centers.[126] This was apparently further firmed up during a 9 September meeting between Mr. Clemente, the JTF J3/J4, and the LSG.[127] Mr. Clemente established three Dade County project officers to work on specific areas of the assumption of

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[123]Dr. Leventhal's recollection of briefing.

[124]Darius interview with Arwood, 8 Sept 92.

[125]Statement of Work, 10 Sept 92.

[126]HOT WASH - DCSLOG Visit to JTF ANDREW, 7 Sep 92.

[127]JTF ANDREW Sitrep as of 091730 Sept 92.

contracting responsibilities by the county--relief feeding, supply distribution, and Life Support Center operations.[128] On 10 September Mr. Clemente received an orientation on the depot operations.[129]

Also in the period from 8-10 September the Corps of Engineers was developing and coordinating a contract to have civilians take over the distribution of materiel from the newly operational Class IV (Construction) Yard at Homestead which received, stored, and issued donated construction materiel.[130] Eventually, however, the City of Homestead arranged for the Salvation Army to take over that operation.[131] On 9 September, Buildings 18 and 25 at Miami International Airport were turned over to GSA as they were no longer needed as equipment storage[132]

The period from 10 to 14 September saw the development of procedures for the return of serviceable stocks to the depot hub at Miami International Airport.[133] On 15 September DLA faxed AMC instructions on how to return excess materiel to defense depots. Essentially, the Army Humanitarian Depot operation in Hangar 22 of Miami International Airport was responsible for determining what assets should be retrograded, for shipping them, and for preparing off-line documentation to maintain accountability and to provide advance warning to the item managers and receiving depots. DLA depots and Supply Centers also received instructions that were designed to eventually bring all the assets back into the supply system. DLA noted that some of these procedures would result in double counting and manual instead of automated accounting, but stated that "we believe this is the best method to support retrograde of AHSD [Army Humanitarian Support Depot] assets without imposing an undue burden on relief operations."[134]

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[128]Script for AMC Operations Center briefing, 10 Sept 92.

[129]JTF Andrew Briefing, 11 September 1992.

[130]Script for AMC Operations Center Briefing, 8 Sept 92 and 10 Sept 92.

[131]This is discussed in more detail below.

[132]Script for AMC Operations Center Briefing, 10 Sept 92 and LSG Sitrep, 081700 (local)-091700 (local) Sep 92.

[133]JTF ANDREW SITREP, 11 Sept 92 and Script for AMC Operations Center briefing, 14 Sept 92.

[134]Memorandum to ICPS and Depots, info AMC, Subj: Retrograde of Excess Assets in Support of Hurricane Andrew Relief Efforts, [15 Sept 92].

By 14 September it was reported to AMC that "the intensity of the pace [in Florida] has slowed as FEMA, state, and county personnel have reduced their presence and activity this weekend."[135] An overview of LSG facilities on 14 September showed that although the parts of the system closest to the customers, the forward humanitarian depots at Cutler Ridge and Homestead, were continuing their normal operations (although Homestead showed a low demand for construction materiel), the elements of the system upstream from them were in the process of preparing to transition to close out operations.

> West Palm Beach: Very little business today. Only 16 tractor trailers arrived and 14 trucks sent out. 8 flatbed (S&P) trucks of clothing sent out of state for disaster relief efforts in other areas outside of Florida. Outside storage lot completely empty now, less water, as personnel continue to move stocks under cover and consolidate. Their efforts will greatly facilitate transition to contract operations. . . .
>
> Miami International Airport HD [Humanitarian Depot]: Preparation for retrograde of surplus supplies.[136]

Also, by the 14th of September, elements of the 82nd Airborne Division were in the process of preparing their supplies and equipment for turn in.

By the week of 15 September 1992 the overall Florida relief operation was definitely moving into the reconstitution phase. The troop strength of the JTF topped out the previous day when two companies of the 27th Engineer Battalion left the area to return to Ft. Bragg while on the 15th a U.S. Army Reserve company was released from active duty and an MP company left to return to Ft. Bragg. Naval forces also declined with the sailing on the 14th of the *USS Sylvania* and the planned departure on the 15th of the *USS Hunley* and on 16th of the *USS Ponce*.[137]

The LSG was continuing to push supplies to its forward depots at Cutler Ridge and Homestead but several of its other activities were geared towards retrograde and clean up operations. At West Palm Beach the 724th MSB was doing

> a magnificent job in organizing the sorting, boxing in triwall containers and loading tractor trailers with clothing. Water disposal is also being worked by the state and county personnel. It is their intent to contract with a vendor to recycle

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[135]Script, AMC Operations Center briefing, 14 Sept 92.

[136]Ibid.

[137]Ibid, 15 Sept 1992.

> the containers and bulk haul the water off site. These proactive actions by local officials will reduce the WPB depot to food and dry goods which can be shipped to a designated county warehouse.
>
> The Miami International Airport Humanitarian Depot continued to establish accountability records and plan for the retrograde of federal supplies. Coordination continues with [the JTF] J4 and 1st COSCOM [Corps Support Command] to prepare equipment and supplies for return to depot.

At the same time the Dade County GSA was organizing a plan for the distribution of donated goods by a combination contractors and in-place relief organizations that it hoped to have in operation by midweek.[138]

On 15 September AMC held its last daily Operation Center briefing on the LSG. That was also the date the Humanitarian Depot began to take action to redistribute surplus federal supplies from the Area of Operations.[139]

By 16 September the state had begun to transport clothing to charitable organizations while the Humanitarian Depot had prepared 57,000 mosquito nets and support systems, 10,000 plastic water cans, 50,000 blankets, 500 GP tents, and 20,000 cots for shipment back to permanent depots, while awaiting final approval for the retrograde shipment from the JTF.[140]

Closing Down the LSG

The close out of the Humanitarian Depot system consisted of several distinct operations. One was the retrograde of federal equipment back into the hands of the DOD depots or other government agencies from which they come. Another was the turn over to civilian government or charitable agencies of all donated goods which the LSG had been handling but did not maintain accountability. Still another was the physical tear down of the humanitarian depot sites and the retrograde of the units and personnel that had run the depot system. The motto of the LSG G-3, Colonel Clifford Aldrich during this period was "Clamshells down, pallets out, and troops home."[141] Complicating the preparation to close out the operation was the fact that goods

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[138]Ibid.

[139]Fax, AMC LOC POC to Col Fish, 16 Sept 92.

[140]Fax from AMC to DA LOC, 160920Z Sep 92, subj: [Potential retrograde as requested].

[141]AMC After Action Report, p. W-20.

continued to come into the area of operations. For example, from 17 to 18 September, 22 trailer loads of construction equipment were unloaded at the Homestead Class IV Yard.[142]

Close Out of Donated Goods. The 17th and 18th of September also saw the development of plans to shift the donated goods into other hands. Plans were developed to send food to the Daily Bread Food Bank and it was estimated at that date that it would take 10 to 12 days to empty the system of donated goods by shipping them to a combination of Daily Bread, Goodwill Industries, and local government.[143]

A key milestone in the draw down of donated goods occurred on 23 September, when the West Palm Beach Truck Intercept Point was fully cleared of all stocks. In good part this was accomplished through State and County agreements with Daily Bread and Goodwill Industries that resulted in the transfer of clothing and other donated goods to their warehouses. In addition, that date saw the end of truck deliveries to the Forward Humanitarian Depot sites as goods were instead to be delivered to the Daily Bread warehouse. Unfortunately, problems developed when the warehouse proved to be unable to support the full load.[144] On 29 September the Cutler Ridge site was emptied of all stocks.[145] The close out of the Homestead Humanitarian Depot was delayed by a dispute between the county and Homestead City over how to privatize the operation, with the city preferring to develop its own plan to use the Salvation Army to take over the operation. The plan as of 29 September was to transfer operations by moving all the remaining stocks at the Homestead Humanitarian Depot to a grocery store that Ross Perot had leased for the use of the Salvation Army. Eventually, however, the Homestead Humanitarian Depot site, except fot the clamshells, were turned over to the Salvation Army on 3 October 1982.[146]

The class IV site at Homestead was also turned over to the Salvation Army following a 2 October agreement between Homestead City and the Salvation Army. Pursuant to a request from the Salvation Army, shipments from the site by the LSG terminated on 2 October, with

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[142]Ibid, p. W-19.

[143]Ibid.

[144]Ibid, pp. Q-2, W-22 to W-23.

[145]Ibid, p. W-24.

[146]Ibid, pp. W-24, W-27. For more information on the political problems between county and city governments, see Darius and Leventhal interview with Aldrich, 2 March 1993.

the Salvation Army expected to pick up operations on 3 October.[147] The Salvation Army's plan was to move the stocks to a warehouse leased by the Salvation Army and to issue the material from there.[148]

Retrograde of Clamshell Shelters. Both the 226th and 227th spent their last few days on the site in tearing down their clamshell shelters, boxing them up, and preparing them for shipment. On 3 October the clamshell shelters were redeployed from Cutler Ridge and Homestead back to Hanger 22 at the Miami International Airport for shipment back to their home depot.[149] A number of problems surfaced during the tear down of the clamshell shelters. After a clamshell shelter was struck, a large number of cables (70-100) were left protruding 10-24 inches above the ground level. Efforts were made to pull them up, but in every case the cable stretched and broke above ground level, leaving digging out the only means of removal, where required. In addition, hurricane end base-plate anchors could not be pulled out of the ground and, depending on the future use of the clamshell shelter location, removal of the cables or cutting of the cables at some depth below ground level was desirable. Removal of the cables below ground level required some type of earth removal machine, e.g., a backhoe, and heavy bolt cutters or a torch.[150] Apparently as a result of this problem, the inability to retrieve all the components of the clamshell, some of the clamshells used in Florida that had previously been used in Saudi Arabia had been missing items that were critical for erection when the clamshells were first received in theater. Among the lessons learned from this was the need to insure that clamshells were returned to the depot to be brought up to perfect condition so that they would be ready for reuse.[151]

A number of other recommendations regarding clamshell usage were also made:

Dedicated erection/striking crews are essential;

Storage/Shipping crates should be protected from damage as much as possible and saved for repacking;

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[147]AMC After Action Report, p. W-27.

[148]Ibid, p. W-25.

[149]Ibid, W-26 and W-27.

[150]JULLS NUMBER: 10446-93905 (00105), TITLE: CLAMSHELTER STRIKING/REMOVAL. Submitted by USAMC-LSG, COL Bennett.

[151]JULLS NUMBER: 21104-91099 (00106), TITLE: CLAMSHELTER ERECTION/STRIKING. Submitted by USAMC-LSG, COL Bennett.

An experienced carpenter is essential to the repacking process; and,

Movement and loading of boxes/crates requires a forklift with at least 5,000-lb capacity, with forks that have at least a 6-foot reach.[152]

Close Out of Government Owned Stocks. In contrast to the close out of donated private goods, in which the goal was to transfer control and responsibility for them to private organizations designated by local governments, the close out of government owned equipment involved returning that equipment into the standard government depot and supply systems.

As early as 12 or 13 September preparations were being made to return excess equipment back into the DOD supply system. This included netting, blankets, cots and tents.[153] Also in mid-September higher level attention was drawn to this issue when Mrs. Livingstone, the Assistant Secretary of the Army for Installation Logistics and Environment, asked how the Army was going to turn-in serviceable supplies and equipment not needed for the humanitarian operation. "AMC responded that all supplies and equipment are funneled through the Humanitarian Depot and that the AMC transition team is currently working procedures for return of assets through the depot to AMC MSC's or DLA."[154] The basic plan for the return of supplies was to have the forward humanitarian depot sites and troop units ship such equipment to Hangar 22 at Miami International Airport. This would include both complete truckloads and smaller amounts of equipment which would then be consolidated at the main depot hub for shipment back into the Army supply system.[155] Other instructions, however, indicated that in many instances units were to directly ship items back to DOD depots but the Humanitarian Depot was responsible for coordinating the shipments and maintaining accountability of the items being shipped.[156] Policy on what to do with equipment purchased specifically for the operation using FEMA funds was determined on September 25th at a meeting attended by the LSG,

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[152]JULLS NUMBER: 21105-26433 (00107), TITLE: CLAMSHELTER ERECTION/STRIKING LABOR REQUIREMENTS. Submitted by USAMC-LSG, COL Bennett.

[153]AMC After Action Report, p. W-17

[154]Script, AMC Operations Center briefing, 14 Sept 92.

[155]Briefing charts, in Logistics Support Group (Provisional) Draft After Action Report, Section E.

[156]Property Accountability Memorandum in Logistics Support Group (Provisional) Draft After Action Report, section E.

FEMA and GSA. Such equipment was to be turned into the main depot hub where custody would be accepted by GSA. FEMA would provide final disposition instructions.[157]

Even as the returning flow of supplies indicated that the operation was starting to come to an end, a number of specialists were brought into the area to support the retrograde movement of supplies back into the normal supply system. On 15 September two DLA tent and textile inspectors arrived in the theater to assess the returned tents and determine their proper disposition.[158] The following day two generator specialists arrived from Tooele Army Depot to classify generators being turned in by units that no longer needed them, no doubt because progress was constantly being made in restoring the power network in the impacted area.[159] On 23 September DLA sent two packing and crating specialists into the area to support the packing requirements for returning material such as tents and clamshells.[160]

By 3 October 1992 the LSG reported the following status of major end items that were in the process of being returned.

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[157]AMC After Action Report, p. W-23.

[158]Ibid, p. W-18.

[159]Ibid, p. W-19.

[160]Ibid, p. W-22.

Cumulative-Major Items				
Item	**Quantity Shipped**	**Unit of Issue**	**Balance On Hand**	**Stockage Objective**
Blanket	72,368	Each	3,189	2,000
Cot	26,848	Each	942	2,000
Generator	90	Each	29	0
Tent	658	Each	551	200
MRE	25,901	Box	0	0
Reefer Van	14	Each	0	0
Water Buffalo	52	Each	9	0
Source: Shipping Status Cumulative-Major Items, in section D of Logistics Support Group (Provisional) Draft After Action Report.				

Retrograde of Personnel and Troop Units. The release of personnel and troop units was phased as various elements of the LSG started to close down. September 15 saw the start of the decline of personnel assigned to the LSG and a steady decline in personnel followed. Formal action to release the troop units working for the LSG began on 21 September when the Joint Task Force issued an order that released the 724 Support Battalion from Task Force control effective 26 September, and on that date the 724th Support Battalion did depart for Fort Stewart, Georgia. That battalion, as noted earlier, was not officially part of the LSG but played an integral role in the supply system by operating at the West Palm Beach Fairgrounds site, and the LSG agreed with its released since the fairgrounds site was expected to be cleared of supplies by that date (see above for the September 23 emptying of the fairgrounds site).[161] At the end of September the LSG requested that the 226 S&S Company be released on 5 October, which was accomplished.[162] Also, by 1 October the 227th GS Company was scheduled to be released effective 3 October. This was accomplished, but the company's class 1 (subsistence) platoon was retained by the ARFOR to provide class 1 supervision and control.[163] The 365th Transportation Company was released from the LSG on 6 October but was given a follow-up assignment with the ARFOR. The 533rd Transportation Company was released from the 80th

[161]Ibid, pp. W-20 and W-24.

[162]Ibid, pp. Q-2, W-24.

[163]Ibid, pp. Q-2, W-26.

Ordnance Battalion, which had provided command and control for the four companies assigned to the LSG, and reassigned directly to the LSG-DESCOM on 6 October. By thus releasing the four companies that had been attached to the 80th Ordnance Battalion, that battalion was left free to be released from the LSG as of 6 October 1992.[164] On 8 October the LSG itself departed, leaving in place in Florida the LSG-Forward, the depot operation run by DESCOM, together with its attached 533rd Transportation Company, to continue the return of all Federal supplies back into the supply system, with HQ DESCOM serving as USAMC-LSG Rear.[165]

Final Assessments

The final commander's assessment by the LSG prior to its transitioning to the LSG Forward listed a number of major achievements performed by it and its subordinate elements:

1. Reduced donated good stockage from a high of 7,296 short tons to 421 short tons, in only 17 days.

2. Cutler Ridge Depot distributed 860 pallets of donated goods in their last week of operations.

3. At this writing the Federal Depot returned to the wholesale system over 132,000 major items of equipment.

4. The LSG has processed over 79,000 short tons since 1 September.

5. The dollar value of inventory managed at the Federal Depot exceeded $35 million. We've returned to date over $14 million of DOD items to the wholesale system.

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[164]Ibid, p. Q-2. The following LSG FRAGOs were involved in the unit releases:

FRAGO 1 to OPORD 92-2, 3 Sept 92, released the 227th GS Co, the 365 Transportation Co., and the 533d Transportation Co.

FRAGO 2 to OPORD 92-2, 1 Oct 92, released the 226th S&S Co.

FRAGO 3 to OPORD 92-2, 2 Oct 92, released the 80th Ordnance Battalion.

[165]AMC After Action Report, Q-2 to Q-3 and Msg, CDRAMC to DIRMIRSPT, 071600Z Oct 92, AMC SITREP.

6. The quantity of plywood (86,000) sheets received and issued by the LSG, if placed end-to-end, would reach from Miami to Key West, Florida (130 miles).

7. The USAMC-LSG was fully operational in 150 hours after its first elements arrived in Miami.

8. The USAMC-LSG personnel strength soared from 4 people on 28 August 992 on 3 September, eventually, reaching a high of 1,094 on 16 September.

9. The USAMC-LSG initiated over 150 loan/lease contracts, at a dollar value in excess of $500,000.

10. Attributable to the efforts of all units, the LSG handled enough materiel to support a heavy division (less class III/V) [class III was petroleum, oil, and lubricants and class V was ammunition] for 121 days!!![166]

On 14 October the LSG-Forward reported on the status of the operations and the plans for its final termination. It stated that of the $30,742,866 of significant DOD supplies received in Florida, $2,047,135 of non-expendable supplies were still outstanding. In addition, $1,443,114 of supplies had been transferred to FEMA and another $20,640,449 worth of supplies had been handed off to units to fill shortages.

The Final Days

To handle turned-in DOD supplies after the LSG Forward operation was terminated on 15 October, a Memorandum of Agreement had been signed on October 14 with GSA to have GSA receive and return such supplies. Some of these supplies were expected to come from units which had already packed their organic equipment and were living in tents they held by hand receipt until they left on about 15 October, while another 100 soldiers were expected to stay in the area for another 3 days to ensure that the transition to civilian control of the life support centers went well. All contractors were notified to send any remaining bills or to discuss any problems with ATCOM, which had been the contracting agent for the LSG.[167] On 17 October, with the exit of the JTF, the LSG-Forward under Colonel Kirby also closed up shop and left

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[166]AMC Disaster Relief Operations - Florida, SITREP, 061700 (local) Oct 92 - 071700 (local) Oct 92. Although the message actually listed classes III and IV (construction materiel), it probably meant classes III and V as was stated in the LSG Briefing charts dated 3 Oct 92.

[167]AMC Disaster Relief Operations - Florida, AMC SITREP, 131700 (local) Oct 92 - 141700 (local) Oct 92.

Florida, with its relief effort to the people of hurricane battered South Florida finally completed.[168]

[168]Darius and Leventhal interview with Aldrich, 2 Mar 1993.

GLOSSARY

A

AAFES	Army Air Force Exchange Service
ADP	automated data processing
AHD	Army Humanitarian Depot
AHSD	Army Humanitarian Support Depot
AMC	Army Materiel Command
AMCCOM	Armament, Munitions and Chemical Command
ANG	Air National Guard
AOAP	Army Oil Analysis Program
ARFOR	Army Forces
ATCOM	Aviation-Troop Command
ATST	Area TMDE Support Team

C

C^2	Command and Control
CECOM	Communications-Electronics Command
CG	Commanding General
Class III	petroleum, oil and lubricants
Class IV	Construction Materials
Class V	Ammunition
COSCOM	Corps Support Command

D

DCS	Deputy Chief of Staff
DCSLOG	Deputy Chief of Staff for Logistics
DESCOM	Depot Systems Command
DLA	Defense Logistics Agency
DOD	Department of Defense
DOMS	Director of Military Support

E

EOC	Emergency Operations Center
ESFs	Emergency Support Functions
EXORD	Execute Order

GLOSSARY

F

FEMA	Federal Emergency Management Agency
FM	Field Manual
FORSCOM	Forces Command
FRAGO	Fragmentary Order
FRP	Federal Response Plan

G

G-1	Personnel
G-2/G-3	Intelligence/Operations
G-3	Operations
G-4	Logistics
GEN	General
GS	General Supply
GSA	General Services Administration

H

HQDA	Headquarters, Department of the Army
INMARSAT	International Maritime Satellite

J

J-4	Logistics
JTF	Joint Task Force
JULLS	Joint Universal Lessons Learned System

L

LAO	Logistics Assistance Office/Officer
LAR	Logistics Assistance Representative
LAT	Logistics Assistance Team
LSE	Logistics Support Element
LSG	Logistics Support Group
LTG	Lieutenant General

M

MG	Major General
MIA	Miami International Airport

GLOSSARY

MICOM	Missile Command
MMC	Materiel Management Center
MREs	Meals Ready-to-Eat
MRSA	Materiel Readiness Support Activity
MSB	Main Support Battalion
MSCs	Major Subordinate Commands
MSE	Multiple Subscriber Equipment

O

OIC	Officer in Charge
OPCON	Operational Control
OPLAN	Operations Plan

R

ROWPU	Reverse Osmosis Water Purification Unit

S

S&S	Supply & Service
SINGARS	Single-Channel Ground and Airborne Radio System
SITREP	Situation Report
SOW	Statements of Work
SWA	Southwest Asia

T

TACCS	Tactical Army Combat Service Support Computer System
TACOM	Tank-Automotive Command
TACSAT	Tactical Communications Satellite
TDA	Table of Distribution and Allowances
TECOM	Test and Evaluation Command
TMDE	Test, Measurement, and Diagnostics Equipment
TO&E	Table of Organization and Equipment

U

USAMC-LSG	United States Army Materiel Command-Logistics Support Group

GLOSSARY

W

WPB	West Palm Beach

Appendix I

A CHRONOLOGY OF USAMC-LSG ACTIVITIES IN SOUTH FLORIDA

24 Aug 92

Hurricane Andrew hit Florida near Homestead (south of Miami) at dawn. President declares 4 counties a disaster area. HQ AMC Emergency Operations Center begins monitoring progress of hurricane in FL on 24-hour basis.

26 Aug 92

Hurricane Andrew hits Louisiana west of New Orleans from the Gulf.

27 Aug 92

HQDA briefing details of the supplies and equipment furnished to the disaster area to date: aircraft transportation support for FEMA personnel, power generation equipment and crews, over 200,000 MREs, Corps of Engineer field teams. The decision is made on 27 Aug to furnish more extensive military support including direct troop support.

28-30 Aug 92

On Saturday, 29 August, GEN Sullivan, Chief of Staff of the Army, called GEN Ross at his quarters in Ft. Belvoir and asked him to launch the LSG Advanced Party to South Florida.

LTC Malcom, 82d Airborne Division, LAO, coordinates directly with ARFOR Commander in South Florida to determine composition of an AMC Logistics Assistance Team (LAT) to support anticipated equipment density.

First Federal troops, from 82d Airborne, Fort Bragg, NC, arrive at 0800, 30 Aug 92. Warning order phoned in ca. 2100 to HQ AMC to deploy Army Humanitarian Depot operation to S. FL. ATCOM personnel began to provide critical equipment in support of relief effort, in coordination with AMC's Humanitarian Depot, to include ROWPUs, generators, field kitchens, clamshell shelters, cots and tents. Also provide 18 personnel LAT from 82d Airborne Division LAO. Sierra Army Depot supplies six ROWPUs but no personnel due to workload and manpower constraints.

To ensure a positive handoff of ATCOM managed items and the sustainability of deployed Army aircraft, MG Williamson dispatches, on 28 Aug, the ATCOM Logistics Assistance Team (ATCOM LAT) consisting of COL James H. Bennett (OIC), CPT Scott Dolloff (Procurement specialist), MAJ Jack Supplee (troop item analyst), and Mr. Don

Hanblin (Supply specialist). The team with sufficient gear in the form of LBE, Moble-flex tents, cots, cellular telephones, etc., arrives at Miami International Airport shortly before midnight on the 28th. The first mission, on the morning of the 29th, is to locate the JTF and supported Army elements.

The JTF headquarters and some friendly faces in the form of BG Wright, 1st COSCOM Cdr, and COL Al Sullivan, 507th CSG Cdr, are quickly located in Bldg 11, on the grounds of the Miami International Airport. With the information gained, the ALAT team is soon off to Opa-Locka where the Army aviation element and the 403d Terminal Transfer Co, the unit that is most likely to receive the items being shipped forward, are located. Enroute to Opa-Locka, a call from MG Thomas Arwood is received. The team is advised to hold fast and make arrangements to pick up and billet MG Arwood and his contingent, which are to arrive the evening of the 29th. Mission is accomplished and, with the arrival of MG Arwood, the ATCOM-LAT becomes the nucleus of the emerging AMCLSG Staff.

ATCOM sends two troop support Logistics Area Representatives to AO.

LTC Joseph A. Malcom, Chief, Logistics Office, and his deputy, Mr. Joseph N. Zarkovich, arrive in AO from Ft Bragg, NC, with two ATCOM Logistics Assistance Representatives (LARs).

CPT Scott Dolloff and MAJ Jack Supplee are absorbed into the LSG staff and remain in building 11, Miami International Airport. CPT Dolloff is the first procurement officer on staff. He develops the original procedures and organization for what finally becomes an Office of four procurement specialists and one resource manager. MAJ Supplee was originally the G-4, then finally as the staff matured, an action officer and the G-2/G-3 briefer on the G-2/G-3 staff.

As the staff grows, COL James Bennett is the Deputy to MG Thomas Arwood on 30 Aug. On 31 Aug, COL Bennett becomes G-3, and finally the G-3 forward. As operational units OPCON to the USAMC-LSG begin to arrive and deploy to the Florida City, Homestead City and Cutler Ridge areas, COL Bennett deploys with them. Mr. Don Hamblin, also a member of the G-3 forward staff, accompanied COL Bennett and the two serve as the sole conduit for the 227th GS Company and the 226th S&S Company to the two-star level staff until the HQ Company of the 80th Ord Bn is deployed and operational. After that, they remain as the expediters/firefighters/coordinators in the forward relief area.

HQ AMC EOC goes to full 24-hrs. COL G. Mason, Chief, Cmd Ops Div, DCSLOG early hrs. MG Thomas B. Arwood, HQ AMC DCSLOG flies to FL, arriving at 1800 local time, to survey and establish the AHD. Also arriving on

the scene is LTC Richard Hall, acting commander of the Depot Support Group, from DESCOM. GEN Jimmy D. Ross, CG of AMC, begins series of conversations over weekend with Mr. Shannon (Undersecretary of the Army); GEN Sullivan (Army Chief of Staff); GEN Reimer (Army Vice CofS); Mrs. Livingstone (ASA[IL&E]); LTG Salomon (DA-DCSLOG); LTG Ebbensen (CG, Second Army); LTG Pigaty (DCG AMC); MG Wilson (AMC CofS); MG Williamson, CG (ATCOM); MG Benchoff, CG (DESCOM); others. TACOM PM asks for 60 water trailers.

DLA advance party arrives on 29 Aug at Miami International Airport. Team members include Mr. Dick Quigley (GM-15 Team Leader), COL E. Carlisle (Subsistence), MAJ J. Hall (Medical), CPT M. Haire (Subsistence), CPT M. Overla (Medical), Ms. Susan Seislove (Subsistence), Mr. J. LeCollier (Subsistence), Mr. Fred Slaveski (Customer Assistance). This team is tasked to support the AMC mission by coordinating all DLA requirements. Team reports to Building 11 at Miami International Airport.

30 Aug 92

LTC Malcom, Chief, Logistics Office, calls forward the rest of the LAT. The team consists of: 4 ATCOM aviation LARs, 5 CECOM LARs, 2 TACOM LARs and 2 additional ATCOM troop support LARs and 7 GTE contractors.

Key military and civilian personnel from HQ AMC and AMC MSCs and depot join MG Arwood. AMCCOM supplies one officer working with special traffic movements to AHD. DESCOM sends two-man advance team to AHD over weekend. TACOM ships 30 trailers with help of Turtle Mt. Manufacturing Co. Formal Executive Order from the Secretary of the Army tasking AMC to deploy the Depot Support Group is received.

CPT J. E. Vogelsang, Supply Corps, U.S. Navy (SC, USN), Commander of Charleston Depot, Charleston, SC, arrives as the senior DLA representative at Miami International Airport and assumes command of the DLA team in Miami. The Team relocates from Building 11 to Hangar 22 where the Forestry Service has established a physical distribution operation to handle material shipped to Miami. Advance information indicates DLA depots have already shipped 2,250 tents; 100,000 blankets; 37,000 cots, 7,500 plastic water cans; and 600,000 MREs.

Nancy Dunn, Public Affairs Officer at HQ AMC, arrives to head the Public Affairs aspects of the operation in AO. On 31 Aug, Herman Harrelson, photographer from Anniston Army Depot, joins PAO. Arto Willis, graphics specialist, also arrives from HQ AMC.

CHRONOLOGY

31 Aug 92

BG James Monroe arrives in AO from TACOM and assumes the position of Deputy Commanding General, Task Force Arwood.

COL Thomas Glisson arrives from DA-DCSLOG and assumes position of Chief of Staff, USAMC-LSG.

COL Cliff Aldrich, Deputy Chief of Military Intelligence, HQ, AMC, arrived at Task Force Arwood, Miami and assumed duties of G-2.

Conference call, GEN Ross, LTG Pigaty, MG Wilson, LTG Arwood on AHD. Main AHD begins operations with personnel from U.S. Forestry Service, DLA and Army. Fifteen LARs (most from 82d Airborne Division, Ft Bragg, NC) and three civilian contractors deploy (from GTE). The latter support C-E equipment. TACOM ships a total of 60 water trailers.

The status of AMC Personnel on site and the status of tents being shipped to the area was as follows as of this date.

COL Wallace Mook, AMC Engineer, arrives in AO from Rock Island Arsenal to help coordinate land acquisition for depot site locations and other possible requirements.

As the LSG continues to grow to meet the AMC mission, other ATCOM personnel are called forward. On 31 Aug, at General Ross' request, MG Williamson, ATCOM Cdr, visits the disaster area. He brings with him to stay as part of the LSG staff MSG Paciencia and SGT Brown.

MSG Paciencia becomes the G-2/G-3 Operations Sergeant and chief provider of items needed by the soldiers down range. SGT Brown becomes part of the G-4 staff working G-4 procurements.

AMC Personnel in Support of Disaster Relief, 31 Aug 1992

Status	Mil	Civ	Total
On Ground	13	16	29
Waiting Deploy	3	1	4
Command Total	16	17	33

Tents shipped to Florida (Most Not Yet Received), 31 Aug 1992

Source	GP Medium	GP Large
DLA	2,250	0
Army	235	370

With the arrival of the clamshell came the clamshell technical experts from ATCOM: Mr. Bob Barnett, Mr. Jeff Fields, Mr. Mike Buneta, and Mr. Tom Pollock (a DynCorp employee on contract to ATCOM). Their job, for the next 21 days, is to oversee the erection of one clamshell in the COSCOM area, three at the Homestead Humanitarian Depot, and three at the Cutler Ridge Humanitarian Depot.

Two portable truck ramps being shipped from Anniston, Alabama, to support truck offload operations at Hangar 22.

1 Sep 92

Depot at Hangar 22, the Eastern Airlines Building complex at Miami International Airport, in operation to receive Federal supplies. The truck intercept site at WPB Fairgrounds is in operation to collect, sort, and issue Class I and VI materials, including food, personal hygiene, and paper products.

AMC team in Miami consists of 30 mil and 40 civ from HQ AMC, DESCOM, Anniston AD, Tobyhanna AD, AMCCOM, CECOM, TECOM, MICOM, TACOM, ATCOM. DESCOM assigned mission of establishing the depot under LTC Richard Hall.

DESCOM reports volunteers as follows: Letterkenny AD 125; Lexington-Blue Grass AD 55; Red River AD 520; Sacramento AD 43; Tooele AD 117.

AMC taskings as of this date for disaster relief include: 16,500 cots, 7 clamshell shelters, 13 K-Span Shelters (on hold by DA), 12 Sprung shelters (from contractors), 200 generators, 500 light sets, approximately 3,000 GP Medium tents (AMC was shipping 376, DLA 2,500 and AMC is providing an additional 256 large tents), 14 refers, 60 water trailers (400 gallons), 375 batteries for radios.

227 General Supply Company arrives and begins integration into receiving, storage and issue operations at Hangar 22.

COL John Petty of Defense Reutilization Management Office (DRMO), Columbus, arrives in Miami to assess conditions at DRMO site on Homestead Air Force Base.

First shipment of insect repellant arrives in Hangar 22.

Release authority for all military supplies in Hangar 22 is identified as the 2d Materiel Management Center (MMC).

CHRONOLOGY

2 Sep 92

Depot operations began at Homestead and Florida City.

DESCOM personnel now total 20 (three from HQ, DESCOM; seven from Anniston AD; nine from Letterkenny AD; one from Red River AD). Tobyhanna reports one computer specialist deployed to Army depot ops in Miami as well. Personnel include those with expertise in procurement, contract, materiel handling, hazardous materiel cleanup and transportation. Twenty-nine more from Letterkenny, Lexington-Blue Grass, Red River, Sacramento AD, Tobyhanna, Tooele AD are processing or are in route. Supplies include generators, shelters, COtS from Pueblo, ROWPUs from Sierra AD, kitchens, and light sets.

TRANSCOM reports, "Transport lift applied against Hurricane Andrew operations in the last 24 hours has closed. Continuing to aggressively apply organic and charter life to deploy the lOth Mountain Division."

DESCOM reports number of hurricane relief volunteers from all DESCOM depots is approximately 960 personnel w/diverse skills in supply, maintenance, transportation, system, etc. DESCOM on ground support to Andrew is shown on the chart.

SITE	MIL	CIV	TOTAL
FL	3	16	19
LA	3	16	19
TOTAL	6	32	38

AMC reports no specific threats identified towards JTF, but potential from mob action, lawlessness, etc. Requests DESCOM send safety representative. Work ongoing to finalize sites for Homestead City and Cutler Ridge depots forward. Initial HCD location is Miami International Airport. HCD will establish three distribution sites on/or in proximity Miami, International Airport, at TAMIAMI airport and one MEDCOM (XVIII Abn Corps) at Opa-Locka airport. 227th GS presently establishing forward depot site - Homestead City. 227th GS staffing:

AMC personnel on ground is shown in the chart.

AMC provided three officers to serve as an AMC liaison office at the DA LOC.

STATUS	MIL	CIV	TOTAL
On ground	30	40	70
Waiting	12	14	26
TOTAL	42	54	96

COL Clifford Aldrich is designated as the Operational Officer of G-3.

Decision is made to forward the 227 General Supply Company into the disaster area to operate a forward depot for distribution of donated goods at Florida City.

Fourteen personnel from DLA Depots at Susquehanna, Red River, and Memphis are called forward to augment the depot operation at Hangar 22.

Forklifts are declared the "pacing item" for the operation. LAO and TACOM LARs are charged with providing first priority support to forklifts utilized in depot operations.

3 Sep 92

HQ AMC DCSs/SOCs are told to provide list of volunteers with required expertise in log, ops, contract, and engineering, by COB 4 Sep. As of 3 Sep the facilities status is as follows: AHD in Miami International Airport was opened, West Palm Beach was opened earlier. Tamiami Airfield Truck Consolidation Point was opened, the AHD Forward Florida City was opened, the AHD Forward Cutler Ridge is in-process, and the AHD Forward Homestead City is in-progress.

SGT Panico arrives and becomes the G-2/G-3 Cartographer (map maker). On 4 Sep MW4 Priddy and SFC Rucker arrive to do the aviation sustainment piece of the original ATCOM-LAT mission. They set up operation with the 1/159th AVN Bde at Opa-Locka, where they remain as an ATCOM special staff element to the AMC-LSG. Also arriving on 4 Sep is CPT Anzelone, Mr. Brian Sporrer, and Ms. Dorthy Reynolds, who become part of the procurement/RM staff, with CPT Anzelone becoming the chief; SFC Meyers, LNO to the DESCOM Depot Command; SSG Hurst G-2/G-3 forward and ultimately a member of the ATCOM aviation sustainment element; Mr. Bob Hunt and SGT Bennett, from ATCOM, become part of the LSG PAO staff.

JCS project code 9CJ is assigned for Hurricane Andrew relief effort.

Two personnel from the Navy Fleet Material Support Office arrive to implement a data system to automate the receipt, issue, and inventory process. The system being used is a modified version of the Supply Information Processing System (SIPS).

226 Supply and Services Company arrives in Miami and moves forward to establish a forward depot for donated goods at Homestead.

4 Sep 92

Additional equipment from DLA being called forward to support operations includes 21 forklifts, 12 portable truck ramps, 5 stretch wrap machines, 750 pallet nesting frames,

and many consumable supplies such as boxes, stretch wrap material, banding material, pallets, and office supplies.

AMC personnel on the ground in support of disaster response is shown in the chart:

ACTIVITY	MIL	CIV	TOTAL
HQ AMC	8	5	13
AMCCOM	12	0	12
ATCOM	6	4	10
CECOM	7	0	7
DESCOM	5	46	51
MICOM	4	1	5
TACOM	2	0	2
TECOM	1	0	1
TMDE	2	0	2
DA DCSLOG	1	0	1
LAO	1	17	18
COMMAND TOTAL	49	73	122

Others in support of the AHD include 5 contractors, 438 personnel of TOE units, and 22 from DLA.

Engineer goes to Port Everglades to see possible staging area that may be donated by civilian firm for use by the military. Engineer continues to coordinate with Corps of Engineer land acquisition personnel for additional land in vicinity of Cutler Ridge.

MAJ Ron L. Brown arrives from CECOM and becomes a part of the G-3. Video Specialist, SGT Beau Bennett, and Public Affairs Officer, Robert Hunt, arrive from ATCOM to join the PAO. On 5 September, Audrey Hatcher, Graphics Specialist, arrives from HQ AMC.

5 Sep 92

Engineer advises civilian firm of no need for staging area land at Port Everglades.

A message is sent soliciting civilian volunteers. By 8 Sep, 902 people had volunteered to go to Miami, if needed, primarily from DESCOM. Occupation of the Cutler Ridge site begins. The Commander and primary staff of the 80th OD Bn arrive on the scene.

COL Patrick Kirby arrives from DESCOM.

Engineer works on site issues related to 80th Ord Bn moving into zoo at Cutler Ridge. Engineer works the issue with JTF-Engineers on system for flow of Class IV through wholesale operation without resolution. Engineer also works the issue for construction inspectors on site at West Palm Beach, by four NCOs on the ground to inspect civilian

donated materials for suitability and subsequent use in South Florida. The depot at Cutler Ridge is also established.

DLA exhibition truck arrives in Miami. It will be assigned to the Red Cross to transport supplies as required.

DRMO site at Homestead Air Force Base is operational. Will support operating forces for disposal of waste oil from maintenance sites.

Subsistence support being provided to operating units from DPSC to Florida City staging site operated by the lst COSCOM. A Troop Issue Site on Homestead Air Force Base is on line to support the Field Kitchens feeding the civilian population. COL Carlisle from DPSC operating with the AMC staff is coordinating all food requirements.

6 Sep 92

The 227th Supply Company starts transferring the Florida City forward depot to the 1Oth Mountain Division for use as a purely retail site while the supply company begins relocating to Cutler Ridge. The Cutler Ridge forward depot becomes operational at 1200 and receives its first bulk shipment of supplies. A construction equipment distribution system is established at the Homestead Depot. The AHD meets a short suspense to provide tents and light sets to support 66 polling booths for a primary election to be held that week in the impacted area.

Planning for phase out of Forestry Service personnel from operations at Hangar 22 begins.

COL Pat Kirby assumes command of the AMC Humanitarian Support Depot system working for the AMC Logistics Support Group.

CHRONOLOGY

7 Sep 92

At the Logistics Support Group hub at Miami International Airport the stock status of high priority items is as shown in the chart:

Item	Amount
MREs	14,437 EA
Plastic bags	12,440 EA
Blankets	67,680 EA
Cots	22,370 EA
"AA" Cell Batteries	39,936 EA
Tent, GP Med	702 EA
Tent, GP Large	161 EA
Light Sets	52 Sets
Generators, 1OKW	36 EA
Generators, 3OKW	38 EA

A total of 54 truckloads of donated goods, less perishables, are received at the Florida City and Homestead Depots.

The AMC Transition Team starts data gathering on site to prepare a plan to transition AHD operations to civilian government or contractors.

AMC Historian, Robert G. Darius, arrives to guide the historian in the AO; however, soon after his arrival, he is tasked to remain in the AO as USAMC-LSG historian, to collect information, interview military and civilians, assist with AAR and provide guidance for historical aspects of the operation in the AO.

8 Sep 92

The Cutler Ridge forward depot is fully operational. A formal call forward rather than the previous push system to the forward depots commences. The Florida City forward depot is formally transferred to the 1Oth Mountain Division. Four clamshell shelters are on the ground in Miami and another four are enroute to Florida City. Units assigned/operational control to Task Force Arwood are the 226th S&S Company (65 personnel at Homestead), the 227th G&S Company (121 personnel at Florida City), the 365th Lt Transportation Company (168 personnel at Tamiami), and the 533d Transportation Company (84 personnel at Homestead). In addition, the 8Oth Ordnance Battalion is still in the process of deploying to help provide command and control. A total of 81 truckloads of material are received by the depots and 109 left them.

CHRONOLOGY

9 Sep 92

The After Action Report Team is formed. The team consists of MAJ Ronnie Brown, MAJ Will Eledui, AMC Historian who arrived on 7 Sep 92 and became a de facto member of the AAR Team, and Sharon Couch, Editorial Assistant for the team.

FEMA issues mission assignment Number R-DOD-O7 with a funding limit of $980,000 to "operate a humanitarian depot system for bulk materials, supplies and equipment for disaster relief operations in the area of operations."

The CG of AMC, GEN Jimmy D. Ross, visits the AO and is briefed in USAMC-LSG.

An eight-person military TMDE team is on the ground. By this date food distribution and feeding operations have stabilized.

Personnel status for the USAMC-Logistics Support Group is shown in the accompanying chart:

Organization	No. of Personnel
HQ	62
LAO, LAT	18
DLA	30
DESCOM	53
80th OD Bn	71
226th GS Co	92
227th SUP Co	123
365th Trans Co	136
533d Trans Co	83
TMDE	8
TOTAL	676

Not included in the USAMC-LSG total, but an essential element of the system, is the 724 MSB located at West Palm Beach Truck Intercept Hub, the main entry point for truck traffic.

Statements of work and cost estimates have been prepared and are to be used to transition the relief effort to private contractors under county control. The 8Oth Ordnance Battalion is fully operational at Cutler Ridge.

The Logistics Support Group conducts a farewell ceremony for Forestry Service personnel in Hangar 22 at Miami International Airport and assumes full control and responsibility for this facility.

To date, 1,206 trucks have entered the depot system and 1,153 have cleared it for points south in the impacted areas.

The Army Audit Agency makes its entry briefing.

MAJ A. L. Faustino arrives from CECOM, replacing William Metzger as Staff Judge Advocate.

10 Sep 92

AMC personnel deployed in support of the disaster response are as follows:

ACTIVITY	MILITARY	CIVILIAN	TOTAL
HQ AMC	14	8	22
AMCCOM	7	0	7
ATCOM	12	5	17
CECOM	9	0	9
DESCOM	11	42	53
MICOM	4	1	5
TACOM	6	2	8
TECOM	2	0	2
TMDE	8	0	8
DA DCSLOG	1	0	1
LAO, LAT	2	16	18
AMC TOTAL	76	74	150

Buildings 18 and 25 at Miami International Airport are turned over to GSA since they are no longer needed for storage. The Assistant County Manager for Dade County agrees to accept responsibility for contracting for the humanitarian depot, resupply, feeding, and running the life support centers (tent cities). The eight clamshell shelters shipped and received to Florida have the following status:

Homestead has four (with one on hold and one being erected),

Cutler Ridge has three (with one on hold and one being erected), and

82d Airborne Division has one.

All clamshell shelters are being used for the storage of supplies, not for billeting personnel. Although Sprung Shelters are available to be shipped, they are very labor and equipment intensive to set up and were not requested.

11 Sep 92

At West Palm Beach the main effort continues to be the reduction of stockage levels. The transition team briefs the DCG of USAMC-LSG on its concept for transition. The Assistant Dade County Manager tours the depots and satellite distribution centers/life support centers to prepare Dade County to negotiate contracts to privatize these operations.

G-1 has established standardized outprocessing procedures for all personnel to outprocess both G-1 and G-3. This ensures that individuals have cleared their hotel rooms and property accountability.

Manning for USAMC-LSG is as follows:

UNIT	OFFICER	ENLISTED	CIVILIAN	TOTAL
HQ, AMC	2	0	1	3
Staff	29	18	14	61
LAP	1	1	16	18
DLA	4	6	17	27
DESCOM	11	5	39	55
226 GS Co	5	87	0	92
227 S&S Co	7	116	0	123
365 Trans Co	4	132	0	136
533 Trans Co	3	73	0	76
80 OD Bn	17	54	0	71
724 MSB	39	359	0	398
TMDE	1	7	0	8
TOTAL	123	858	87	1,068

CHRONOLOGY

12 Sep 92

AMC receives a requisition for seven 600-gallon fuel posts to provide power to schools. Requisition is canceled the next day.

BG Monroe requests immediate fill of parts for forklifts. The parts are all DLA managed items. Two are purchased locally and the rest are shipped from Mechanicsburg with an ETA of 13 Sep.

ATCOM strength, including transient personnel, peaks at 25. A large part of ATCOM Detachment is its Logistics Assistance Representatives (LARs) contingent, which includes four troop and four air members, OPCON to the ARFOR LAO. TACOM has two LARs, CECOM five LARs, and DESCOM two LARs.

12-13 Sep 92

USAMC-LSG is preparing to move depot packed stocks back to AMC depots. Netting, blankets, cots, and tents awaiting transportation. This continues through 13 Sep.

13 Sep 92

Ms. Sharon L. Couch arrives from MICOM to assist with clerical/editorial support to After Action Report Team.

14 Sep 92

USAMC-LSG estimates 9000 tons of clothing, water, food, and other general supplies in depot system. JTF elements (82d Airborne) are preparing equipment and supplies for turn in.

FEMA issues mission assignment Number R-DOD-O8 with a funding limit of $93,000,000 to provide a DOD military and civilian forces and a command and control structure (Joint Task Force Andrew) in support of the DOD disaster relief effort resulting from Hurricane Andrew.
USAMC-LSG is established as a (Provisional) command. The Permanent Order 89-1 is published effective 29 Aug by AMC. The Staff Judge Advocate, A. L. Faustino, works this action through EOC, HQ, AMC. The action is completed within only two weeks, a record time.

USAMC-LSG reports a continued decline in demand for food. Army aviation missions decline as the ground transport network is restored. Accountability audits are initiated to accomplish supply and property reconciliation.

Internal procedures are developed for the return of serviceable federal supplies from field to depot. There is very little business at WPB.

Sixteen tractor trailers arrive and 14 are sent out of WPB. Outside storage lot is completely empty.

Continuing improvements are being made at the Cutler Ridge and Homestead sites.

15 Sep 92

Start of decline in number of personnel manning the AHD.

Hats and T-shirts with AMC logo for civilian personnel are shipped to Florida by express mail.

Last day daily briefings are routinely given to the entire staff at HQ AMC on AHD. The transition concept is developed by COL Bryant, Chief of Transition Team.

AMC Chief of Staff receives concept briefing for transfer of depot system to civilian control.

Eight truckloads are transported from WPB to Goodwill Industries and Paralyzed Veterans of America.

Contracts for food service and USAMC-LSG management to be advertised.

Two tent and textile inspectors from DLA depot Richmond arrive to provide assessment of all tents being returned from the field to determine proper disposition.

Public Affairs Specialist, Dutch Meier, arrives from Picatinny Arsenal to work in PAO.

16 Sep 92

USAMC-LSG expects all clothing and water to be gone from WPB within 10 days.

Forward depots continue to push humanitarian supplies to distribution points.

Work load data at WPB includes: 162,002 civilian and military miles driven; 56,048 short tons handled; 1,096 total trucks in; 650 total trucks out.

Two generator technicians arrive from Tooele Army Depot to classify generators being turned in by units supporting relief operations.

CHRONOLOGY

17-18 Sep 92

R&R Beach program begins for USAMC-LSG soldiers in the field (20 per day at Miami Beach).

Twenty-two trailer loads of building materials are unloaded at Class IV yards at Homestead.

Drinking water is being disposed of by county contractor.
System for sending food to Daily Bread Food Bank for distribution is being developed. Estimate 10-12 days to empty donated goods--part county, part Daily Bread, part Goodwill Industries. Food service contract is expected to be awarded 21-22 Sep.

18 Sep 92

G-1 starts the AMC R&R Center at Days Inn in Miami Beach, FL. G-1 is successful in receiving $15K from AMC to fund the program until 30 Sep 92. The program includes 10 double occupancy rooms, including dinner and full buffet breakfast. Feedback from the soldiers in the field who have participated say that it is a complete success.

19-20 Sep 92

Goodwill is closed for weekend. USAMC-LSG reports 1600 pallets of clothing remain at WPB for shipment to Goodwill and Paralyzed American Veterans organizations. Federal supplies continue to build at Hangar 22, MIA.

County and Daily Bread organization are adjusting to new system.

20-21 Sep 92

Operations at Tamiami repositioned to Cutler Ridge Depot Forward.

Four hundred clothing pallets are moved to civilian agencies from WPB.

Daily Bread Food Bank closes on Sunday. Big push to move items occurs 21-22 Sep.

21 Sep 92

COL Clifford Aldrich, Chief of Operations, mentions in the DCG staff meeting that the G-3's motto during the transition phase of the operations is: "Clamshells down, pallets out, and troops home."

COL Thomas Glisson, Chief of Staff, is notified that he is on BG promotion list.

Supplies at WPB are reduced.

Redistributing of supplies from Hangar 22 back to wholesale depots is resumed.

Joint Task Force issues FRAGO 47, releasing the 724th (Main) Support Battalion effective 26 September. USAMC-LSG agrees the battalion's mission will be completed by that time, as depot clearance is progressing so well.

21-22 Sep 92

WPB depletes all clothing supplies (858 pallets) and most general supplies. WPB will clear everything by 1200, 23 Sep, then it will prepare for departure on 26 Sep.

Cutler Ridge clothing is moved to Goodwill.

Homestead wishes to use Salvation Army as distribution agency in privatization effort.

USAMC-LSG continues to prepare Federal items for shipment, including tents, cots, insect repellant, blankets, etc. As of 1700, 36,624 short tons moved in, and 30,224 short tons out.

The following is the reported total numbers of trucks received and shipped out in last 24 hours:

Site	Received	Shipped Out
WPB	0	69
Hub	8	19
Homestead	0	22
Cutler Ridge	0	10
Daily Total	8	120
Cumulative Total to Date	2,289	1,889

Overall personnel figures for 22 Sep, including the 724th MSB: 98 officers, 822 enlisted, 87 civilians, totalling 1,007.

This was a loss of 62 individuals since 17 Sep.

22 Sep 92

WPB supplies are zero balance. This is a significant milestone, and supplies at Cutler Ridge are reduced.

No trucks deliver materials to any humanitarian depots per agreements made earlier with civilian organizations. All inbound trucks are delivering materials to Daily Bread.

USAMC-LSG is unable to meet with Salvation Army but confirms that Homestead City is finalizing an agreement to privatize the distribution effort. USAMC-LSG, therefore, expects to be able to drawdown the Homestead Depot within a few days.

G-1 planning continues to focus on Morale, Welfare and Recreation programs for the TOE units in the field. Thus far, mail delivery to the soldiers was working, newspapers are available, AAFES vans are being scheduled to ViSit the units, TVs/VCRs have been rented and are in each of the subordinate companies. G-1 is fortunate to receive free or discounted programs available for the soldiers.

G-1 is gearing up for the awards program. All soldiers will be receiving a JTF and USAMC-LSG certificate. Impact awards are being processed for GEN Ross' planned presentation on 6 Oct 92.

22-23 Sep 92

By evening of 22 September, WPB has been cleared of all clothing and furniture, only 132 pallets remain, which are already loaded. By 1200, 23 September, WPB is completely cleared out. Cutler Ridge is next. All bottled water is disposed of, and clothing has been moved to Goodwill, leaving only 580 pallets of donated goods remaining. USAMC-LSG continues to push supplies to various charitable organizations and assists Daily Bread operations in "maturing."

Neighborhood demand for donated items slows as conditions in the area approach a more normal state of affairs. Even demand for construction materials slows. Tents at Life Support Centers are removed as residents transfer to mobile homes and travel trailers furnished by FEMA. JTF recommends FEMA buy all tentage left in place, to simplify loan, accountability, and return actions.

23 Sep 92

Two packing and crating specialists from DLA depot Oklahoma City arrive to support packing requirements for return material (clamshells, tents, etc.).

By evening, 23 September, WPB is completely closed out. No trucks deliver goods to any of the Humanitarian Depots, in accordance with agreements made earlier with civilian organizations. All inbound trucks deliver directly to Daily Bread. Warehouse space at Daily Bread quickly exhausts, as second story space could not support the load.

CHRONOLOGY

23-24 Sep 92

USAMC-LSG continues effort to reduce donated goods at Cutler Ridge, most of the drinking water is gone, no clothing remains on hand.

Warehouse space in Daily Bread warehouse is exhausted, however, as second story of the building cannot support load.

Homestead Depot is still in operation, issuing to agencies and distribution points.

Dade County/Homestead City privatization efforts still need resolution.

Dade County is to award food service contract to Construction Catering and Krome Life Support Center (LSC) management contract to Dyair. However, USAMC-LSG reports that life support contract came in too high, and county is reworking wording and requirements.

Tents at various LSCs continue to be removed as residents are transferred to mobile homes and travel trailers furnished by FEMA.

Workload of USAMC-LSG regarding return of Federal supplies to depot at Hangar 22 is expected to be affected by departure of XVIII Airborne Corps/82d Airborne Division.

25 Sep 92

Meeting takes place with FEMA and GSA to agree on policy and procedures for turn-in of material purchased with FEMA funds: Policy agreed upon is that DOD units will turn-in items purchased here. GSA will accept custody in Hangar 22, and FEMA will provide disposition instructions.

A total of 76,000 or more short tons has been processed since USAMC-LSG started. The total value of Federal supplies redistributed during the period have a dollar value of nearly 9 million.

Site	Received	Shipped Out
Hub	12*	3
Homestead	16	10
Cutler Ridge	0	3
Daily Total	28	16
Cumulative Total	2,374	2,193

*Truckloads of Federal equipment repositioned from JTF units to Hangar 22, MIA.

Overall personnel figures for 29 Sep: 702 military and civilian personnel on the ground; 0 in route, and 511 returned.

30 Sep 92

All three clamshells are down and personnel are in process of disassembling them at Homestead Depot.

At Cutler Ridge Humanitarian Depot, one clamshell is down and work continues on breakdown of the remaining two clamshells.

Personnel offload seven railcars of Class IV materials. The material is shipped to FEMA-approved charitable organizations. On 29-30 September, a total of 27 railcars are offloaded.

LTC Michael K. Millard arrives at USAMC-LSG, replacing MAJ Al Faustino as SJA.

1 Oct 92

Salvation Army concept of operations for Homestead City Class IV yard is to lease necessary vehicles and material handling equipment (MHE) to issue goods and move stocks to Salvation Army leased warehouse.

226th and 227th work on repacking, rebanding, and preparing boxes of clamshell shelters for shipment.

The 227th GS Company is scheduled for release from their mission effective 3 October.

HQ AMC EOC plans to deactivate emergency operations and change to minimal staffing on 2 Oct.

Eighteen trucks of repositioned federal materiel depart Hangar 22, Miami International Airport (2300 cots, 16 generators, and 18 water buffalos).

Within last 24 hours the number of trucks processed in and those shipped out of the depots were as shown on the accompanying chart:

Site	Received	Shipped
Hub	4	25
Homestead City	1	3

AMC personnel on the ground are: 61 military, 61 civilian, for a total of 122 for the command.

CHRONOLOGY

2 Oct 92

AMC personnel on the ground consist of 58 military and 70 civilians, a total of 128.

FRAGO is delivered to 226 S&S Co. They are scheduled to redeploy on 5 Oct.

The primary mission for the 226th S&S Co is to finish recrating the clamshell shelters, prepare the Homestead Depot for transfer to the Salvation Army and prepare the unit for redeployment.

The primary mission of the 227th G&S Co is to recrate their clamshell shelters. Carpenters assigned to rebuild the crates are shifted to the Cutler Ridge Depot. These assets allow the 227th to make significant progress in accomplishing their mission.

Transfer of excess federal supplies between ARFOR and DESCOM goes smoothly, as does the repositioning of these supplies from Hangar 22 to defense depots.

Agreement is signed by Homestead City for the Salvation Army to take full operational control of the Homestead Depot on 3 Oct.

All Class IV issues are halted on request of the Salvation Army, to be restarted on 3 Oct.

Homestead City Depot has 75 percent of clam shelters recrated.

Cutler Ridge depot has 25 percent of its clam shelters recrated.

Federal supplies repositioned at Hangar 22 continue to reduce.

Public Affairs Officer, Kevin Toolan, arrives from Tobyhanna Army Depot to work in the PAO.

3 Oct 92

Clamshells from Homestead and Cutler Ridge Depots are transported to Hangar 22 at MIA.

Twenty-one trucks of federal supplies are repositioned from Hangar 22 to DESCOM and DLA depots.

Plan is to complete clearing and cleaning of Cutler Ridge depot within next 24 hours.

5 Oct 93

CHRONOLOGY

The 226 S&S Company was released by the LSG.

6 Oct 93

The 365th Transportation Company was released from the LSG and given a follow-up assignment with the ARFOR.

The 533rd Transportation Company was released from the 80th Ordnance Battalion and reassigned directly to the LSG-DESCOM.

The 80th Ordnance Battalion was released from the LSG.

8 Oct 93

The LSG departed, leaving in place in Florida the LSG-Forward, the depot operation run by DESCOM, together with its attached 533rd Transportation Company.

14 Oct 93

LSG-Forward reported that of the $30,742,866 of significant DOD supplies received in Florida, $2,047,135 of non-expendable supplies were still outstanding. In addition, $1,443,114 of supplies had been transferred to FEMA and another $20,640,449 worth of supplies had been handed off to units to fill shortages.

A Memorandum of Agreement was signed with GSA for GSA to receive and return Federal supplies in theater after the LSG-Forward was terminated.

17 Oct 93

LSG-Forward under Colonel Kirby closed up operations and left Florida.

Source: Section W of AMC After Action Report provided the data for the chronology through October 3. Data after that date was taken from the sources cited in the text.

Appendix 2

List of Oral History Interviews Conducted for LSG

Unless otherwise noted, all the interviews were conducted by Dr. Robert Darius while deployed to South Florida from September to October 1992.

1. SIDE A: MG Arwood Interview, 8 Sept
   SIDE B: MG Arwood (Cont'd)

2. SIDE A: MG Arwood (Cont'd)
   SIDE B: MG Arwood (Cont'd)

3. SIDE A: Unmarked
   SIDE B: (Continuation)

4. SIDE A: AMCLSG, Miami, FL, Sept 92
   SIDE B: (Continuation)

5. SIDE A: Interviews Conducted on 9 Sept 92, AMCLSG
   SIDE B: (Continuation)

6. SIDE A: Bob Darius, Sept 92, AMCLSG, Miami, FL
   SIDE B: Interviews, Homestead and Cutler Ridge, 10 Sept 92

7. SIDE A: Oral History, Miami, FL, 11 Sept (Continuation of 6B)
   SIDE B: (Continuation); DCG Staff Meeting, 11 Sept

8. SIDE A: DCG Staff Meeting, 11 Sept (Continuation of 7B)
   SIDE B: DCG Staff Meeting; Misc. Matters; Discussion in Chaplain's Office

9. SIDE A: Rest of Interview w/Ann Pickering, 12 Sept; Interview w/ Zarkovich
   SIDE B: DCG Staff Meeting, 12 Sept

10. SIDE A: DCG Staff Meeting (Cont'd) & Rebroadcast (Channel 4)
    SIDE B: Interview w/CALLS Rep, 13 Sept; Interview w/Mr. Quigley, DLA (Cont'd on 11A)

11. SIDE A: Interview w/Mr. Quigley, 13 Sept (Cont'd from 10B)
    SIDE B: DCG Staff Meeting, 13 Sept (Cont'd on 12A)

12. SIDE A: DCG Staff Meeting, 13 Sept (Cont'd from 11B)
    SIDE B: Interview w/COL Thurman, 14 Sept (Cont'd on 13A)

ORAL HISTORY INTERVIEWS

13. SIDE A: Interview w/COL Thurman (Cont'd from 12B)
SIDE B: DCG Staff Meeting, 14 Sept

14. SIDE A: Chief of Staff Meeting, 15 Sept (Transition Phase)
SIDE B: DCG Staff Meeting, 15 Sept (Cont'd on 15A)

15. SIDE A: DCG Staff Meeting, 15 Sept (Cont'd from 14B)
SIDE B: Interview w/Bill Wessmer, FEMA

16. SIDE A: DCG Staff Meeting, 16 Sept (Cont'd on Tape 17A)
SIDE B: Interview w/Don Hamlin, Red River Army Depot, 17 Sept

17. SIDE A: DCG Staff Meeting, 16 Sept (Cont'd from Tape 16A)
SIDE B: DCG Staff Meeting, 18 Sept

18. SIDE A: Interview w/COL Bennett, 17 Sept
SIDE B: Unmarked (Continuation of Bennett Interview?)

19. SIDE A: Interview w/COL Bennett, 17 Sept (Cont'd from Tape 18)
SIDE B: Bennett (Cont'd)

20. SIDE A: Interview w/COL Bennett, 17 Sept (Cont'd from Tape 19)
SIDE B: Interviews; Recordings

21. SIDE A: Channel 4 T.V., CPT Greene, 18 Sept
SIDE B: Field Visit w/DCG, 18 Sept

22. SIDE A: Field Visit w/DCG (Cont'd from Tape 21)
SIDE B: (Continuation?)

23. SIDE A: DCG Staff Meeting, 18 Sept; Other Brief Interviews
SIDE B: DCG Staff Meeting, 19 Sept

24. SIDE A: Interviews, 20 Sept; DCG Staff Meeting, 20 Sept
SIDE B: DCG Staff Meeting, 21 Sept; Chief of Staff Meeting, 22 Sept (Cont'd on 25A)

25. SIDE A: Chief of Staff Meeting, 22 Sept (Cont'd from Tape 24B); Interview w/COL Mook
SIDE B: Unmarked (Continuation?)

26. SIDE A: DCG Staff Meeting, 22 Sept
SIDE B: DCG Staff Meeting, 22 Sept (Cont'd)

27. SIDE A: DCG Staff Meeting, 23 Sept
SIDE B: DCG Staff Meeting, 23 Sept (Cont'd); Channel 4 Rebroadcast of Hurricane Andrew

28. SIDE A: MG Arwood's Staff Meeting, 24 Sept
SIDE B: MG Arwood's Staff Meeting, 24 Sept (Cont'd); Field Visit w/MG Arwood, 24 Sept (Cont'd on Tape 43A)

29. SIDE A: Field Visit to West Palm Beach w/MG Arwood, 25 Sept
SIDE B: MG Arwood's Staff Meeting, 25 Sept (Cont'd on Tape 30)

30. SIDE A: MG Arwood's Staff Meeting, 25 Sept (Cont'd from Tape 29B)
SIDE B: Interview w/RM; Historian's Observations, 26 Sept

31. SIDE A: CG Staff Meeting, 26 Sept
SIDE B: Interview w/CPT Doloff, 27 Sept (Cont'd on Tape 32A)

32. SIDE A: Interview w/CPT Doloff, 27 Sept (Cont'd from Tape 31B); Interview w/MAJ Hawkins
SIDE B: Interview w/MAJ Hawkins; Field Visit to Cutler Ridge

33. SIDE A: CG Staff Meeting, 28 Sept
SIDE B: Interview w/SGT Blanchard and an Interview w/LTC Thompson, MTMC

34. SIDE A: Interview w/MAJ Dempsey, 29 Sept
SIDE B: Unmarked (Continuation?)

35. SIDE A: Interview w/MG Arwood, 29 Sept
SIDE B: DCG Staff Meeting, 30 Sept (Cont'd on Tape 36A)

36. SIDE A: DCG Staff Meeting, 30 Sept (Cont'd from Tape 35B)
SIDE B: Interviews, 1 Oct

37. SIDE A: Interviews, 1 Oct - Includes David, Hurricane Victim
SIDE B: Interview w/David (Cont'd); Historian's Comments, 1 Oct

38. SIDE A: Interview w/CPT Schaertel, 2 Oct
SIDE B: Unmarked (Continuation?)

39. SIDE A: BG Monroe's Staff Meeting, 2 Oct
SIDE B: Interviews; Comments; Interviews w/ESF-2; with LTC Johnsen

ORAL HISTORY INTERVIEWS

40. SIDE A: BG Monroe's Staff Meeting, 3 Oct
SIDE B: BG Monroe's Staff Meeting, 3 Oct (Cont'd)

41. SIDE A: Interview w/CPT Anzelone, 3 Oct
SIDE B: Interviews, 4 Oct

42. SIDE A: DCG Staff Meeting, 5 Oct
SIDE B: Interview w/BG Monroe, 5 Oct (Cont'd on Tape 43B)

43. SIDE A: Field Visit w/MG Arwood, 24 Sept (Cont'd from Tape 28B)
SIDE B: Interview w/BG Monroe, 5 Oct (Cont'd from Tape 42B)

44. SIDE A: Interview w/COL(P) Glisson, 5 Oct; DCG Staff Meeting, 6 Oct
SIDE B: DCG Staff Meeting, 6 Oct (Cont'd)

45. SIDE A: Interviews; Award Ceremony, 6 Oct; RM Interview & Comments by Darius
SIDE B: Comments by Darius, 6 Oct

46. SIDE A: Recordings of Staff Meeting, 7 Oct SIDE B: Recordings of Staff Meeting, 7 Oct (Cont'd)

47. SIDE A: Interview of Col. Clifton Aldrich (LSG Operations Officer) by Dr Robert Darius and Dr. Herbert Leventhal
SIDE B: Aldrich interview (Cont'd and also continued on tape 48.)

48. SIDE A. Aldrich interview (Cont'd)

Appendix 3

AMC's Lessons Learned During Hurricane Relief Operations

The following are abstracts of the recommendations made by AMC through the automated Joint Universal Lessons Learned system. They are divided into the following categories: ADP; Battle Staff; Combat Service Support; Command, Control and Communications; Doctrine; Materiel; Military Police; OPLAN/OPORD; Organization; Planning; and Supply.

ADP

COMPATIBLE AUTOMATED SYSTEMS.

OBSERVATION: There were no compatible automated force reporting systems available between the subordinate units and the headquarters.

DISCUSSION: Each battalion headquarters is authorized and equipped with a TACCS machine used for strength accountability and reporting. The Logistics Support Group headquarters does not have the capability to interface with existing systems; therefore, redundant and duplicate data bases are maintained at both levels.

RECOMMENDED ACTION: That a TACCS machine be an authorized item of equipment for the Logistics Support Group Headquarters G1. This would allow units to update personnel data base and simultaneously update the headquarters data base. If the TACCS were not linked by modem, then a floppy disk update would be required. This would eliminate paper transfers or telephonic updates. The TACCS machine has an existing data base which will allow ad hoc reports which can be used to provide information for decision makers.

BATTLE STAFF

STANDARD BRIEFING CHARTS.

OBSERVATION: Standard briefing charts should be developed.

DISCUSSION: As the USAMC-LSG matured, so did the briefing process and briefing charts used to display essential information. Many of the charts can be used for future deployments to show basic trends, i.e., personnel authorized/assigned, force deployment graphics, logistics throughput, etc.

RECOMMENDED ACTION: To capture the formats of the briefing charts used during the deployment for future operations. This would eliminate the trauma of the first few days of deciding what elements of information to prepare for briefings.

CHECK CASHING.

OBSERVATION: Contractors for the U.S. Army are not authorized to cash checks.

DISCUSSION: Contractors are not authorized to cash checks at the Base Exchange or other military facilities while supporting humanitarian exercise.

RECOMMENDED ACTION: When contractors are used to support an exercise or deployment, they should be allowed limited Exchange and check cashing privileges. This could be accomplished by using a temporary ID or privilege card.

MWR PROGRAM/SUPPORT.

OBSERVATION: MWR Program/Support for Separate Organizational Units

DISCUSSION: Four separate companies were attached to a non-organic battalion for operational control. The units were not self-supporting from the standpoint of Morale and Welfare Programs. We contracted 10 rooms at a hotel in Miami Beach to give the soldiers in the field a 24-hour R&R. The stay also included a free dinner and breakfast. Twenty soldiers went on R&R each day. Local tourist companies were contacted to ask about tour prices, etc. Many companies offered discounts to the military. R&R packets were made up that included all the discounts, with maps and brochures from the local Chamber of Commerce. Also, a company donated the use of TVs and VCRs for the soldiers' use. We contracted for VCR tape rentals. AMC appropriated funds were used to pay for the Commander's Morale, Welfare and Recreation Program.

RECOMMENDED ACTION: That either the parent battalions or the battalion that has operational control bring equipment/materials to provide for the MWR of the attached units. The Joint Task Force should fund the MWR program.

SYSTEM FOR FORCE TRACKING/FORCE REPORTING.

OBSERVATION: There was no established system for force tracking/force reporting.

DISCUSSION: Although the task organization was identified in the operations order, there were no MTOE documents available nor did the OPCON units have MTOE documents with them to show authorized strength of their units.

RECOMMENDED ACTION: Deploying unit advance parties should be required to report to the USAMC-LSG HQ with MTOE documents showing authorized and deploying strength and the anticipated dates of arrival of the main body. The G1 staff cannot give the commander a good personnel assessment without knowing what the expected total strength of the unit will be.

For example, if the authorized strength is 200 and the deploying strength is only 150, as the unit arrives, the force build up is based upon the deploying strength rather than authorized/required strength.

PERSONNEL POLICIES.

OBSERVATION: Personnel Policies need to be established at the beginning of the deployment.

DISCUSSION: Personnel policies and limits of authority of the staff and the subordinate commanders need to be outlined by the commander to avoid confusion. Because of the organizational alignment of the LGS, subordinate units still receive administrative support from their parent organization, i.e., requests for deletion/deferments return to parent battalion commanders for approval/disapproval. CG, LSG directed that he would be the approval authority for release of personnel.

RECOMMENDED ACTION: That limits of authority and personnel policies be established early on to facilitate command and control and UCMJ authority.

BILLETING/HOTEL ROOMS.

OBSERVATION: Obtaining billeting/hotel rooms.

DISCUSSION: During humanitarian/disaster relief operations, many USAMC-LSG personnel must reside in motels or hotels. Rooms are generally difficult to obtain because of demand for available housing. Without adequate planning and proper financial authority, it is not possible to reserve these facilities.

RECOMMENDED ACTION: A Billeting Officer must be included in the USAMC-LSG advance party and possess a government credit card to reserve blocks of rooms. Also need close coordination with AMC EOC to know how many personnel will be arriving each day and billeting requirements.

PERSONNEL ARRIVALS.

OBSERVATION: Incoming USAMC-LSG personnel arrived at various locations in Miami with little or no guidance on where to report.

DISCUSSION: Incoming USAMC-LSG personnel arrived in Miami at various locations with a variety of instructions on where to report. In most instances, no one met new arrivals and escorted them to the proper inprocessing site. As a result, accountability of arrivals was incomplete, unnecessary rental cars were obtained, and unnecessary rooms rented.

RECOMMENDED ACTION: Have an element in the advance party coordinate with the EOC on the arrival of all personnel, meet incoming personnel at the arrival site, and escort them to the appropriate sites for inprocessing.

MAIL DISTRIBUTION.

OBSERVATION: Mail Distribution

DISCUSSION: The distribution and handling of mail was done by FEMA. They issued mail to the J-1, who had an authorized mail handler. The J-1 distributed the mail to the various offices. USAMC-LSG subordinate units were notified with a sign placed in their distribution box that there was mail to pick up. Though this process was time-consuming, it met all government regulations for receipt, handling, and distribution of mail.

LESSON LEARNED: Ensure that the Administrative Specialist position 71L be coded with a F5 ASI to identify the need for a postal qualified person.

RECOMMENDED ACTION: That an authorized mail handler be assigned to the G-1 section or a 71L E-4 or below that could be trained as a mail handler.

AWARDS/CERTIFICATES.

OBSERVATION: Processing Awards/Certificates

DISCUSSION: The G-1 office did not have the capability to process awards. We established a system where we sent the awards back to AMC HQ for processing. The certificate was designed using free-lance software. A contract was let to have the certificates printed at a local printing company. We designed a USAMC-LSG certificate (see attached) which we could process at our location. If we had an awards clerk, we could do the processing on site, instead of sending them through the mail.

LESSON LEARNED: Specify that the Administrative specialist position 71L be knowledgeable of military awards procedure so that an in-house capability exists.

RECOMMENDED ACTION: Ensure that TDA authorization reflects requirement for administrative support to process and prepare award nominations.

RENTAL VEHICLE MANAGEMENT.

OBSERVATION: Rental Car Authorization

DISCUSSION: Personnel were authorized rental cars on their TDY orders. Personnel reported in with rental cars before certifying the need to have a car. This resulted in more rental cars

than were necessary. Personnel in the same duty section or staying in the same hotel could carpool.

LESSON LEARNED: As part of the notification procedure, individuals should be authorized rental cars but not allowed to lease a vehicle until they sign in and determine their duty section and the availability of car pooling.

RECOMMENDED ACTION: Require individuals to inprocess before renting a vehicle to determine the need based upon the duty section assigned.

STAFF SUPPORT.

OBSERVATION: Staff Support

DISCUSSION: The current LSG concept makes no provisions for a staff section with equipment to support the commander. Rationale: It was envisioned that the LSG would be assigned in a theater of operation to a higher logistical organization which already had a staff. In disaster relief or humanitarian operations, however, there is no existing organization to satellite on. The LSG is autonomous - a separate command structure. Accordingly, a staff section with equipment is required to support the LSG commander and subordinate units for humanitarian/disaster relief operations.

RECOMMENDED ACTION: Include in the LSG concept a staff section module which contains the attached personnel and equipment (Encl 1).

LSG EQUIPMENT.

OBSERVATIONS: Equipment Requirements for LSG

DISCUSSION: Upon deployment to Florida, the LSG was issued several empty buildings from which to operate. There were no office supplies, ADP equipment, and other essential materiel needed to operate. Items either had to be shipped from home stations or locally procured from GSA or contract. Shortages of these essential items not only distracted from mission accomplishment, it caused unnecessary expenditure of funds. Now that the LSG has evolved into its current configuration and equipment/supply posture, we should use these resources for our next humanitarian contingency and not dispose of them.

RECOMMENDED ACTION: Purchase a storage container for the LSG. Have all LSG elements prepare a packing list of items on hand, as well as items required but not on hand. Place on-hand items in the storage container and move it to an AMC facility for future contingency use. Order the items which are not on hand but needed and place them in the storage container also.Then, when you next have a LSG mission, simply move the van to the site and you have the necessary supplies/equipment to immediately begin operations.

MATERIALS PROCESSING.

OBSERVATION: All donated/incoming materials must arrive at one centralized location for processing.

DISCUSSION: This concept was used most of the time. WPB was the central location that processed, then sent forward to the depots what was needed on a priority basis. The problems arose when vehicles arrived at forward depots without being processed by WPB. Those vehicles arrived with items not needed and not packaged in a way for immediate use by the forward depots. When one central location is used the following problems are prevented: (1) Forward depots getting redundant equipment, materiel, and use of personnel in the central location to download, repackage, store the supplies arriving. (2) Forward depots having excess tentage and a limited area to store excess and unneeded goods. (3) Forward depots cannot concentrate on receiving and issuing priority goods from multiple sources, nor plan the most effective management of their personnel.

RECOMMENDED ACTION: National media agencies and higher headquarters release one location for donated materials to be checked in before routing. At that location materiel can be downloaded and repacked as necessary and held to be shipped when needed. This location receives information from the forward depots and determines what will be shipped, when, and how. This location alerts the forward depots so that the forward depots are prepared for the arrival and can efficiently transfer supplies.

PROCEDURES FOR PERSONNEL DEPARTURE/REPLACEMENT.

OBSERVATION: Procedures for personnel departures/replacements were not initially established as SOP for the LSG.

DISCUSSION: The LSG needs to establish standard procedures for the departure/replacement of personnel to ensure personnel are properly inprocessed/outprocessed through their unit HQ. Otherwise, commanders will be unable to properly manage and account for personnel assets. Such was the case during the initial stages of JTF Andrew.

RECOMMENDED ACTION: Establish and disseminate standard personnel management procedures.

CIVILIAN TIME AND ATTENDANCE REPORTING.

OBSERVATION: Time and attendance reporting

DISCUSSION: There were no procedures established prior to arrival of civilian employees reference scheduled tour of duty, shift hours, time card procedures, etc. All civilian personnel were under the C2 of the USAMC-LSG, but each USAMC-LSG subordinate element was

providing T&A information to their own home stations, each establishing tours of duty, etc. There was no coordinated process or agency to consolidate and manage this function.

RECOMMENDED ACTION: A civilian from HQ AMC Personnel Office be assigned to the USAMC-LSG to manage time and attendance cards and other CPO activities. Further, a designated tour of duty should be established immediately for all civilians and each employee be told this in advance so there are no questions upon arrival. DLA needs to provide guidance/assistance with their activities. Make sure all MSCs are notified of established procedures and understand they have no authority to change without coordination with the USAMC-LSG.

PRCs (PURCHASE REQUEST COMMITMENT).

OBSERVATION: DA Forms 3953 (PRCs) were initially approved by the primary G staff officer.

DISCUSSION: At the outset of JTF Andrew, PRCs were being approved by the senior G staff officer on the LSG. Without total visibility, unnecessary items could have been purchased (already available in system) or requests duplicated. The solution was to have the G-4 and Chief of Staff screen and sign the approval block on all DA Forms 3953 after section chiefs validate the request.

RECOMMENDED ACTION: Establish an SOP for submission of DA Forms 3953 which prescribes the G-4 as the staff controlling agency and Chief of Staff as approval authority.

PROPERTY ACCOUNTABILITY.

OBSERVATION: G-4 initially did not have total property accountability of items procured on DA Forms 3953 for units in support of relief operations.

DISCUSSION: The G-4 Section was not totally staffed until five days after deployment. Initial G-4 functions were performed by a G-3 Logistic Operations Officer. As equipment for the HQ was issued to begin initial housekeeping functions, LSG staff sections signed for the items directly from GSA and the Headquarters Commandant. Immediately upon the arrival of the G-4 NCOIC, property accountability procedures were put in place; hand receipts for equipment, to include leased vehicles, were developed and filed/maintained by the G-4 staff.

RECOMMENDED ACTION: At a minimum, a supply officer and NCO should arrive with the advanced party equipped with all pertinent forms (i.e., DA 2062 and DA 3161) and a document register and property book should be established to account for/maintain accountability throughout the exercise.

SELF SUPPORT ITEMS.

OBSERVATION: Units did not deploy with adequate self support items, to include PLL.

DISCUSSION: Units under the command and control of the 80th OD Battalion did not have their full complement of MTOE equipment. The G-4 had to find several outside (contractors) sources to provide field sanitation support, maintenance, repair parts, etc. PLL for forklifts (low density item) ran out very fast.

RECOMMENDED ACTION: Units must deploy with full complement of MTOE equipment. PLL for low density items must be identified and get stocked prior to deployment from home station.

PROCUREMENT.

OBSERVATION: The Contracting Section was tasked to procure urgent supplies and services during non-business hours.

DISCUSSION: The Contracting Officers are responsible for obtaining maximum competition before obligating government funds. To accomplish this task, they must be able to contact multiple sources of supply. Most vendors are not readily available during the evening or on weekends and holidays. Points of contact that may be needed at home station (such as Policy and Compliance, Legal, Director of Acquisition) are also difficult to reach during non-duty hours.

RECOMMENDED ACTION: When locating sources, buyers should always get home phone numbers, FAX numbers, and mobile phone numbers from contractors. This information should be indexed on vendor source cards, in anticipation of future buys. Contracting personnel should bring telephone rosters and make arrangements with the home station to have on-call experts available off-duty hours.

PROCUREMENT ACTIONS.

OBSERVATION: Procurement actions are being performed by several contracting offices, often with little coordination. Who buys what?

DISCUSSION: Procurement offices include AMC, Joint Task Force (18th ABN Corps, COSCOM), DLA, GSA, FEMA, and Corps of Engineers. These offices are not co-located and little coordination is done between offices. Requirements for the same items may be assigned to different contracting offices to procure. For instance, AMC, Corps of Engineers, and GSA all awarded contracts to lease portable toilets for the same area. There are no procedures established to determine which item each command is responsible for buying, and these items are often shared between military units.

RECOMMENDED ACTION: All procurement personnel should be located in the same location. Each valid request should come to one central control point for distribution to the proper buying agency. Requests should be consolidated to save money and effort. The

procurement sections could easily coordinate sources, procedures, and other information to make effective procurements.

AMC-R 500-4.

OBSERVATION: This regulation prescribes the requirements for mobilization and deployment of a Logistics Assistance Team and would serve as a guide for deploying any civilians in an LSG.

DISCUSSION: AMC-R 500-4 contains checklists of information that deploying civilians must complete prior to deploying. For example, LAOs are required to check all LARs at least twice annually to ensure they all have current passports, shots up to date, Dental and Medical Records up to date, Civilian and Military Drivers licenses, have received Chemical Defensive Training, and familiarized with a side arm weapon (training operational for each LAR). Furthermore, all LARs are provided funds to purchase BDUs. Lastly, LARs draw TA-50 OCIE from installation CIFs to participate in exercises and operations. It is unlikely that any of the civilians (other than LARs) deployed after any POR or even have a Ruck Sack and sleeping bag. Any operation other than Humanitarian Relief will put civilians in jeopardy if there is not a plan to ensure they are prepared to deploy prior to the alert.

RECOMMENDED ACTION: That a core of Civilians be selected as Emergency Essential and be required to maintain the standards set forth in AMC-R 500-4.

REQUISITION PROCESS.

OBSERVATION: The requisition process is not well understood.

DISCUSSION: The process of requisitioning supplies and services is not standardized. Many purchase requests are delayed due to improper routing. Once the item is purchased, it is not always properly accounted for and routed to the customer efficiently.

RECOMMENDED ACTION: The requisition process should be displayed in a flow chart to follow the requisition process from identification of a need to delivery of the item to the customer. The process should include input from the G-4 to show receiving actions at the warehouse and property accountability/hand receipt procedures. Contract actions should be the last resort to satisfy a customer need; all other methods should be examined first.

HISTORICAL REPORT.

OBSERVATION: Covering the history of AMCLSG.

DISCUSSION: During Operation Desert Storm (OSD), the U.S. Army Materiel Command (AMC) did not have a historian in the theater of operations to collect data and information, to interview key people, to collect detailed records on the process of AMC's contributions to the

ODS operations. The AMC historians, both at HQ, AMC and in AMC MSCs relied primarily on data and information they could gather after ODS ended. Current CG, AMC, desires history be covered as events unfold, particularly in important AMC operations such as JTF Andrew. (Active, ongoing coverage of history, rather than coverage of the events after they end.) Accordingly, CG, USAMC-LSG appointed an Army captain as the historian for AMCLSG on or about 4 September. On 7 September, CG, USAMC sent the AMC Historian to the A/O to assist in this process by collecting and cataloging data and information; interviewing key individuals to include leaders, soldiers, AMC civilians, and private volunteers in both wholesale and retail sites. Data and information was required on AMCLSG's accomplishments and shortcomings, on the process of how each phase of AMCLSG operations were accomplished from Phase I (relief) through Phase III (reconstitution), and the interaction between AMCLSG, DLA, FEMA, HQ AMC, MSCs, and various ARFORs in the A/O. With an experienced historian on site, the history of AMCLSG would better include coverage of processes, human dimensions of the operation and interesting vignettes, rather than just an accounting of the operational aspects of this unique logistical operation.

RECOMMENDED ACTION: In future humanitarian/disaster relief operations, the presence of an AMC historian in the A/O is a must from the initial deployment until the AAR is draft-completed. The historian's tasks will be: to collect data and information, both descriptive and analytical; to record the process; to contribute to "lessons learned" process and to AAR; to coordinate historical record and information collection for HQ, AMCHO and for AMC, MSC historians; to interview AMCLSG military and civilians of all echelons; and basically to ensure a comprehensive collection of information for coverage of the history of the AMC's role in the A/O. The historian must continue to have both the support of the Command Group, both at HQ, AMC and in the A/O, and must have his own or be provided with professional tape recorders and microphones with long cords to enable him to record staff meetings in a conference room setting. He should also have a stockage of cassette tapes, camera, and access to records and personnel in AMCLSG. Another related matter involves provision of timely transcription support by HQ, AMC Historical Office, by EOC at HQ, AMC, or preferably by some in the A/O using available, extra clerical support time to ensure timely transcription of taped interviews and their timely availability for "lessons learned" and for AAR in the A/O.

DEPLOYMENT OF "C4" UNIT.

OBSERVATION: The 533d Transportation Company, Ft Benning, GA, deployed at 60 percent personnel strength and had reported C4 for personnel on the previous six Unit Status Reports (USR) to FORSCOM.

DISCUSSION: The unit was expected to perform a medium truck company mission requiring its full complement of personnel and equipment. The unit was only capable of deploying with 33 of its authorized 55 vehicles due to personnel and equipment shortages. The result was that the unit had to turn down commitments that it would normally be expected to handle.

LESSON LEARNED: FORSCOM should send unit with at least 90 percent strength.

RECOMMENDED ACTION: FORSCOM should develop a plan to quickly backfill units with personnel and equipment similar to what would happen under wartime conditions, or task another unit.

LACK OF AOAP (ARMY OIL ANALYSIS PROGRAM).

OBSERVATION: No AOAP was immediately available in the AO.

DISCUSSION: There are at least two mobile AOAP labs in the Army inventory. Failure to deploy one of these labs required units to mail samples back to their installations, or to borrow the facilities at Air Force and Navy installations in Florida.

RECOMMENDED ACTION: That a mobile lab deploy to AOs that contain a division size force with aviation.

FUEL TESTING.

OBSERVATION: There were no facilities for testing fuel.

DISCUSSION: Over 140 Army helicopters were involved in this operation. At no time was there a procedure established to test for fuel contamination.

RECOMMENDED ACTION: That adequate facilities be established to accompany deploying units to accommodate testing of fuel. Prior coordination be made for use of any existing facilities in the area of operations.

BILLETING FOR LARS.

OBSERVATION: LARs were all billeted in the same hotel in a central location.

DISCUSSION: Central billeting of all LARs with the LAO was an excellent arrangement that provided access between AMC MSCs to discuss common problems and to feed information to the LAO for the daily SitRep.

RECOMMENDED ACTION: That all LARs be centrally billeted with the LAO in future operations, unless units, such as aviation, are remotely located.

SAFETY OF FLIGHT AND SAFETY OF USE MESSAGES.

OBSERVATION: These messages were not readily available to units or LARs.

DISCUSSION: These messages are of extreme importance in protecting the lives of soldiers operating equipment. The only known source during this operation was through E-Mail from

ATCOM-Aviation to the LARs through E-Mail. The LAO has not seen any SOU messages and has only seen SOF messages as a courtesy of the ATCOM Aviation LARs.

RECOMMENDED ACTION: Distribution of message traffic must continue to units and LARs regardless of the AO.

DEPLOYING CIVILIAN EMPLOYEES W/O EMERGENCY ESSENTIAL CONTRACTS.

OBSERVATION: Civilian employees who have not signed a Mobility and Emergency Essential Employee Contract are under no obligation to deploy in support of military operations.

DISCUSSION: Supporting a Humanitarian Relief operation poses little threat to life and even less threat from an organized enemy force. Accordingly, civilians were merely "sent TDY" to Miami to perform many of the same functions they would have performed at AMC and MSC HQs. During ODS, civilian employees not classified as Emergency Essential "came and went" as volunteers; many left on/about 15 Jan 91. LARs have signed Emergency Essential Contracts and can be sent anywhere in the world with no notice. A LAR's only recourse in failing to deploy would be termination of employment. For the AMC LSG to be a deployable concept that is dependent upon civilian employees, a core of civilians must be selected and hired as Emergency Essential.

RECOMMENDED ACTION: That a core of civilians in AMC HQs, MSC HQs, and Depots be identified as Emergency Essential and offered contracts as such.

REPORTING REQUIREMENTS.

DISCUSSION: The reports used by the staff evolved on a day to day basis with a final product of a daily SITREP, a daily internal PERSTAT, and a modified daily internal LOGSTAT. Since these changed somewhat each day, different requirements for tracking information were placed on the internal units during the operation which caused extra effort trying to reorganize their procedures. The biggest problem was determining what needed to be tracked for reporting in the Log and Opns areas.

RECOMMENDED ACTION: AMC needs to establish on the shelf Tactical Standard Operating Procedures (TAC SOP). This tactical SOP will spell out those critical information requirements commanders must track and report.

AVIATION LOGISTICS ASSISTANCE TEAM (ALAT).

OBSERVATION: Aviation Logistics Assistance Team (ALAT)

DISCUSSION: The ALAT that arrived on 4 Sep 92 from the Aviation and Troop Command (Prov), St Louis, MO, did a superb job in providing aviation maintenance and supply assistance

to the units. To date, the team completed 114 air-on-the-ground requests, parts the units do not have on hand, with 98 completed, minimizing time on the ground for aircraft.

RECOMMENDED ACTION: ALAT be deployed on all significant exercises to continue the assistance that allows deployed aviation units to operate efficiently and effectively.

ARMY OIL ANALYSIS PROGRAM (AOAP).

OBSERVATION: Army Oil Analysis Program (AOAP)

DISCUSSION: A requirement for an AOAP lab was established when units like the 10th Mountain Division arrived. These units were too far from home station to transport samples back and forth like 82d is doing. Commander, MRSA, confirmed that AOAP support for Army aircraft will be provided by Air Force labs in several Florida sites. On 10 Sep 92, it was decided to use Jacksonville Air National Guard AOAP lab for JTF Andrew aircraft. Only aircraft samples are accepted due to the lack of equipment and manuals for ground vehicles or fuel samples. Turnaround time is averaging about 3 days.

RECOMMENDED ACTION: A team, with all appropriate equipment and manuals to do air, ground and fuel samples, be located on site for future exercises of this nature.

MSC EOC REQUISITIONING PROCEDURES.

OBSERVATION: MSC EOC Requisitioning Procedures

DISCUSSION: MSC EOCs do not have standard procedures in obtaining parts for major end items managed by respective MSCs. ATCOM-Aviation EOC will take a request for any part on any aircraft, find the correct SOS and ensure it is transported by the most expeditious means to the customer. TACOM EOC apparently has the same policy per the DCG, but does not carry it out. It is unknown how the other MSCs intend to handle emergency requests.

RECOMMENDED ACTION: That AMC publish an SOP on emergency operating procedures with an annex for each MSC, DLA, and GSA that includes the proviso that the LAO has the emergency authority to call for critical parts by NSN and have them shipped on MSC Document Numbers.

EXPANDED EMPLOYMENT AGREEMENTS WITH CIVILIANS.

OBSERVATION: The limited scope of the USAMC-LSG Commander's authority over off-duty conduct of civilians deploying with the force sometimes requires establishing differing standards for civilians which detracts from unit cohesiveness.

DISCUSSION: During this operation, the Commander was effectively precluded from establishing an alcohol policy because this policy would have to distinguish between civilians and

military. In order to maintain unit cohesiveness, the Commander decided not to issue any formal policy. Instead, a purely voluntary policy was articulated. While this proved to be effective in this operation, future contingency operations may require establishing uniform working and non-working conditions for all members deploying in support of the operations. In order to do this, civilians deploying with the USAMC-LSG must voluntarily agree to comply with the same policies and procedures applicable to military members of the command.

LESSON LEARNED: All individuals deploying with USAMC-LSG during contingency operations must be subject to the same conditions of employment in order to foster organizational cohesiveness and effectiveness.

RECOMMENDED ACTION: The CONPLAN for Humanitarian Operations should include a requirement to have all civilians deploying with a military force to sign a modification of their employment agreement which makes all USAMC-LSG Commander's rules, regulations and policies a part of their job description and a condition of employment.

CONTRACTING OFFICER WARRANTS.

OBSERVATION: Several of the LSG's contracting officers did not have valid warrants.

DISCUSSION: During the relief effort, ATCOM was designated the contracting office. However, several of the LSG's contracting officers were from a different MSC. Upon examining their warrants, it was discovered that the warrants only authorized them to contract for their MSC, not ATCOM. The warrants were useless.

LESSON LEARNED: The LSG contracting officers must deploy with valid warrants authorizing them to award contracts for the LSG contracting activity.

RECOMMENDED ACTION: The designated contracting officers for the LSG should arrive in the disaster area with warrants issued by the HCA of the designated LSG contracting activity.

GOVERNMENT CREDIT CARDS.

OBSERVATION: No credit cards were issued to the LSG contracting officers.

DISCUSSION: The acquisition regulations allow contracting officers to make purchases by commercial credit cards issued to their contracting activities. The LSG contracting officers experienced problems making local purchases through the use of handwritten small purchase forms. Many vendors were reluctant to accept the forms. If the contracting officers had been issued commercial credit cards, they could have easily made purchases from almost any source -- almost any vendor will accept a VISA or MasterCard. This would also eliminate the need for a large impress fund, albeit a small impress fund is still vital for emergency situations.

LESSON LEARNED: LSG contracting officers should be issued and authorized to make purchases by commercial credit card.

RECOMMENDED ACTION: Issue commercial credit cards to the LSG contracting officers.

AFTER ACTION REPORT (AAR) TEAM.

OBSERVATION: Activating the AAR team early in the operation was advantageous for USAMC-LSG.

DISCUSSION: The AAR team was activated on 9 Sep 92, eleven days after deployment of USAMC-LSG to the area of operation (AO). The USAMC-LSG AAR team was composed of two majors (O-4) and a typist. The two majors were pulled out of G-3 operations to perform this mission. A typist (GS-7) came from MICOM. The USAMC-LSG team prepared two products: (a) Write USAMC-LSG executive summary to be submitted to JTFA with all appropriate Joint Universal Lessons Learned (JULLs). (b) Prepare USAMC-LSG AAR with back-up JULLs. The following process was used to collect data: The USAMC-LSG team identified all POCs from various staff sections, depot operations, and the 80th Ord Bn. A meeting was conducted to pass on guidance for data collection. The POCs were given a JULLS sample and instructed to submit data to the USAMC-LSG AAR Team for duration of the operation or as observations/issues surfaced. Once the JULLS inputs were received, they were logged, reviewed for content and application, then typed. After AAR team review, then G-3 and Chief of Staff would review the inputs. If a particular JULLS had a JTF application, then after G-3/Chief of Staff review, the CG or DCG would review the observation before submission to the JTF AAR Team.

One of the majors was designated as POC to interface with Joint Task Force Andrew (JTFA) AAR Team. The POC attended JTF AAR meetings and updated the CG or DCG on all General Officer (GO) required sessions. Most importantly, daily interface with the JTF was crucial to remain updated on all activities.

The equipment for USAMC-LSG AAR team, as a minimum, should include (1) table-top computer, (2) laser jet printer, (3) software package - JULLS, Word Perfect, and Multi Mate, (4) ink cartridges, (5) Diskettes, 3.5 inch, double sided, double density.

RECOMMENDED ACTION: That USAMC-LSG AAR Team activate early in future operations in order to capture relevant data and attempt to emulate superb accomplishments.

SECRETARY OF THE GENERAL STAFF (SGS) MISSION AND FUNCTIONS.

OBSERVATION: Position created and filled with one officer to handle joint duties as the SGS and protocol officer due to the influx of visitors.

DISCUSSION: Five days after the initial deployment of the AMC Logistics Support Group (LSG) staff a request was initiated for a SGS. The duties entailed normal SGS functions plus the protocol mission. No administrative assistants were detailed to provide assistance. Office equipment included a laptop computer, accompanying the arriving SGS, and laser printer.

Duties include attending LSG staff meetings, writing the minutes to the meeting, monitoring and tracking all taskings by the Commander and Deputy Commander, providing a list of outstanding taskings at the daily staff meetings, and keeping the command group and staff abreast of current and future visiting dignitaries.

As dignitaries (both military and civilian) were identified, by the Joint Task Force Andrew protocol office, elements within the task force were tasked to prepare the itinerary. Direct coordination ensued with various units (XVIII Airborne Corps, 1st Corps Support Command (COSCOM), 724th Main Support Battalion, 80th Ordnance Battalion and the Depot Command). Coordination continued hourly as changes were constantly made. Itinerary format varied with each responsible agency until JTF Andrew Protocol established a standard format for the Task Force. Final itineraries submitted included all seating assignments for transportation (both ground and air) meetings.

A total of over 40 dignitaries (President, Vice President, Congressmen, General Officers, and federal/state officials) visited the area of operation during a 4-week span of the operation.

RECOMMENDED ACTION: A SGS officer be identified and included in the initial stages of deployment.

COMMAND, CONTROL AND COMMUNICATIONS

REQUIREMENT FOR BATTALION HEADQUARTERS.

OBSERVATION: Command and Control

DISCUSSION: The initial organization of the LSG consisted of a LSG Commander and Deputy Commander; LSG staff; depot commander; and four companies (226th S&S, 227th GS, 533 TC, 365th TC). Very quickly, it was realized that a battalion headquarters structure was required to provide C2 and staff assistance to the four companies. The LSG staff is not able to be the interface with the JTF staff, be the LSG Commander's staff, and be the "battalion staff" for the companies. Clearly, a separate battalion headquarters is a necessity to provide C2.

RECOMMENDED ACTION: Include in the LSG concept a battalion HQ module which can be used to provide C2 to company size organizations during humanitarian operations.

JTF COMMAND AND CONTROL OF USAMC-LSG.

OBSERVATION: Command and Control

DISCUSSION: The current LSG concept calls for the LSG to be under the operational control of the senior logistics headquarters. For support of JTF Andrew, the LSG was a major subordinate organization OPCON to the JTF. There was no senior logistical headquarters (other than the JTF J-4) to work for. Working directly for the JTF Commander did not appear to cause any problems with C2 or mission accomplishment. There does not appear, in disaster relief operations, to be a need to create another logistical C2 structure for the LSG to report to.

RECOMMENDED ACTION: Modify the wording in the C2 paragraph of the LSG concept document to provide flexibility in command relationships in disaster relief operations.

LSG REAR DETACHMENT.

OBSERVATION: LSG Rear Detachment

DISCUSSION: HQ AMC, through its EOC, performed the rear detachment functions for the LSG during JTF Andrew. Support provided was excellent. This is a viable means to perform this function in future disaster relief operations.

RECOMMENDED ACTION: No change to current concept. Use HQAMC EOC as an option based on METT-T.

USE OF A USAMC-LSG OPERATIONAL FORCE.

OBSERVATION: Command and Control

DISCUSSION: For JTF Andrew, the LSG evolved into an organization consisting of a LSG HQ and a depot command of four companies and a battalion HQ for C2. The companies and the battalion HQ all came from different installations, arrived at different times, and had to be incrementally integrated into a cohesive organization by the LSG. Because of the urgent nature of humanitarian operations, units need to arrive at the site prepared to operate at peak efficiency. Requiring the USAMC-LSG to bring together four different companies under a new battalion headquarters is challenging in this environment and unnecessarily uses precious time to build cohesiveness, continuity of operations, reporting procedures, etc.

RECOMMENDED ACTION: Identify a Force Package 2 nondivisional battalion with organic supply and transportation units and assign them a contingency mission to deploy to areas of operation under the OPCON of the USAMC-LSG to operate the humanitarian depots. This unit could be exercised annually in a CPX/LOGEX mode to ensure skill levels remained high for humanitarian operations. The end result is a cohesive, trained organization which could very quickly deploy and provide immediate humanitarian support.

TRANSPORTATION ASSET CONTROL.

OBSERVATION: Control of transportation assets in support of the depot system.

DISCUSSION: The DESCOM uses varied transportation sources (commercial, light truck, medium truck) to support its operation. Type of transportation required is cargo and destination dependent. There is currently no organizational structure organic to the DESCOM to coordinate, manage, and control these assets.

RECOMMENDED ACTION: A movement control team needs to be deployed and attached to the DESCOM prior to arrival of attached truck companies to control and manage DESCOM transportation assets.

TIMELY ARRIVAL OF THE HISTORIAN.

OBSERVATION: Historian should be on site at the beginning of the Humanitarian Relief operations.

DISCUSSION: An experienced historian was not on site at the beginning of Humanitarian Relief operations to accurately record and document key events. As a result, decision makers and action officers had departed the area or were difficult to contact to interview and record their initial assessment of the disaster area and their methodology to provide Relief and Recovery. A historian's role is to conduct field visits, record observations, interact with leaders/soldiers and state and local officials to collect descriptive and analytical information, narratives, and information on procedures and on processes on how orders are given and executed. He also interacts one-on-one with general officers to capture their thoughts and record successes and failures. To accomplish these tasks, a historian must arrive with all necessary equipment, supplies, and administrative support to effectively perform his mission. In future humanitarian type operations, historian must have a package of essential items (i.e., camera, tapes, two tape recorders w/mike).

RECOMMENDED ACTION: That an experienced historian arrive on site at the beginning of the relief effort with self-sustaining equipment, or have arrangements made to have those services provided.

INFORMATION MANAGEMENT.

OBSERVATION: Information Management Systems to support disaster relief operations.

DISCUSSION: There is no single DOD standard system to control supply operations. While each service/agency has a system that flows from the source of procurement to the ultimate consumer, those systems are not designed to support disaster relief operations. Existing systems are basically structured on a pull system, where a customer identifies a requirement by

submitting a request that flows up through the system, followed by a flow of supplies against that requirement to the user. Disaster relief is a push system driven from the top down, and does not conform to the standard DOD accountability requirements down to the consumer.

RECOMMENDED ACTION: First of all, basic policy decisions must be made with regard to accountability, to include actual hand-off on supplies and equipment to the civilian sector. Based on those policies, a lead agency (most probably within DOD)needs to develop a software program to accommodate that need. It should be PC based, real time and self sustaining with communications links. It needs to interface with the supporting wholesale system and should reach to the lowest level of required accountability before transfer to the civil sector. It should also automatically generate proper documentation for the various functional aspects of the operations (e.g., Transportation movement control documents), and contain the appropriate financial management data base.

PROPONENT RESPONSIBILITY.

OBSERVATION: Proponent responsibility for disaster relief

DISCUSSION: FEMA is responsible for planning, coordinating and funding for disaster relief operations. However, they are dependent upon other Federal agencies, state and local government agencies, nonprofit organizations or contractors to execute such operations. During Operation Task Force Andrew it was obvious that several agencies were tasked to provide the same services, such as supply distribution. At Hanger 22, Miami International Airport, the Forest Service arrived first and established control over Federal supply items being shipped south, the Army Materiel Command and DLA followed, and the Corps of Engineers arrived to control construction material and power generation equipment. This caused confusion.

RECOMMENDED ACTION: There needs to be a joint agency effort to develop specific roles and missions for each agency to eliminate overlap. Each agency should then develop specific contingency plans to include all personnel, equipment and facility requirements, as well as information systems and communications needs. Those roles and missions need to be incorporated into the mission statement of each organization involved, and specific training programs and exercises should be developed.

LAO OPERATIONS CENTER.

OBSERVATION: Insufficient office space in Bldg 11. LAO Operations was moved into the hotel where the LAT stayed.

DISCUSSION: Bldg 11 had insufficient space for the entire LAO Operations Cell (23 people). As a result, the LAO moved his Operations Center to a hotel room furnished at no cost by Best Western. The hotel provided additional phones and provided a second FAX at no cost. All "local phone charges ($.75 each)" were waived by the management.

RECOMMENDED ACTION: That the LAO be provided sufficient office space in the vicinity of the USAMC-LSG HQ to establish an operations center 24 hours daily. Equipment required includes Data FAX, Desk Top Computer, Microfiche Reader, two commercial phone lines (one for E-Mail and FAX, and one for incoming/outgoing calls), distribution boxes for eight subordinate elements.

CELLULAR PHONES.

OBSERVATION: Cellular phones were not immediately available for LARs and not all had phones as of C+15.

DISCUSSION: It is imperative that units and key logisticians be able to contact LARs 24 hours daily. Furthermore, it is imperative that LARs have the ability to contact representatives from the wholesale supply, maintenance, and depot network. Failure to provide phones renders the LARs less than optimally effective.

RECOMMENDED ACTION: That cellular phones be made a part of the deployment package for LAO Operations.

TRANSPORTATION.

OBSERVATION: A car for every LAR.

DISCUSSION: This is the first operation that this LAO has participated in that every LAR had a rental car.

RECOMMENDED ACTION: That, in the future, each LAR be furnished a vehicle for his/her own official use.

LAO AND LSG.

OBSERVATION: The LAO and AMC's Logistics Assistance Team (LAT) has always been considered an entity of its own, not a part of other AMC activities in the AO.

DISCUSSION: On tactical deployments, the LAT is attached to tactical units, but report to AMC HQ. LAOs are identified with Corps, Divisions and COSCOMs, not LSGs. This relationship was maintained during ANDREW by physically removing the LAT from Bldg 11 and billeting them as a team in a separate hotel and establishing an LAO Operations Center in that hotel. The direct relationship between LAO and unit supported never materialized. For example, the LAO team in support of ANDREW was: LAO-JTF? or LAO-ARFOR? or LAO-LSG? AMC Chain of Command and Rating Scheme during ODS was through LAO-SWA, then AMC DCSLOG. The LSG is the logical organizational chain of command and rating scheme for the LAT. The LAO should not be considered a part of the staff, but a functioning unit reporting directly to the CG LSG.

RECOMMENDED ACTION: That the LAO report directly to the CG, LSG.

PROXIMITY OF J STAFF AND AMC G STAFF.

OBSERVATION: Proximity of J Staff and AMC G Staff.

DISCUSSION: For this operation, the J and G Staff was located on the same floor of the same building. This proved to be the best command arrangement. The reasons are that coordination and information sharing was done face to face with no down time and no burden on the fledgling land line communication system that was put in over the first week. This also allowed the G Staff to piggy-back on the J Staff's office equipment, feeding, and other services. The commander and primary staff also lost no transit time to attend meetings.

RECOMMENDED ACTION: AMC's task force should collocate with the JTF staff for future operations.

INMARSAT.

OBSERVATION: USAMC-LSG units/elements must have a viable communications means during the first initial/critical days of deployment, followed immediately by a primary and backup/redundant communications throughout the duration of deployment.

DISCUSSION: USAMC-LSG used INMARSAT assets to accomplish communications in areas unreachable by other means. This gave forward deployed elements the capability to communicate until other systems were in place. It is possible to provide pinpoint communications in a very short (15 min) timeframe with INMARSAT.

RECOMMENDED ACTION: INMARSAT proved to be a reliable means of communication able to handle the mission. INMARSAT packages, complete with prime power, need to be assembled and ready for the contingent of momentary mission requirements. A communications installation team needs to deploy with the advanced party to establish communications to higher HQ and assess the need for additional communications. Emergency telephone requests need to be prioritized further to ensure the critical areas are addressed.

COMPOSITION OF ADVANCE PARTY.

OBSERVATION: LSG Advance Party

DISCUSSION: In disaster relief operations, the actual extent of the problem and assets available for use on site cannot be determined until a reconnaissance is conducted. There is a definite need for an advance party to: (1) Define the mission and determine the concept of the operation; (2) determine work areas for the AMC-LSG staff operation; (3) determine the equipment available/needed to establish staff operation; (4) determine lodging sites for the staff;

(5) verify the number and type of units and staff members needed to support the operation; (6) determine, and if possible establish, communications back to AMC-EOC and communications needs for the staff; (7) establish staff offices and prepare to smoothly accept main body personnel; (8) begin personnel status recording (alpha roster), daily log, and manning of communications; (9) begin acquiring needed housekeeping supplies, lodging, and rental cars. In this deployment, the advance party did not have sufficient detail, G4, Contracting, HQ Commandant, and G1 personnel.

RECOMMENDED ACTION: Establish a LSG SOP which establishes an advance party consisting of: Commander; C/S; Commander's driver; HQ Commandant; G4; Contracting Officer; G3; G3 Opns SGT; Commo NCO; G3 NCO; detail soldiers (5 each). The total is 6 officers, 3 NCOs, and 6 enlisted men. Of the 5 duty soldiers, one should be a Clerk/Typist; one a computer operator.

LAO AND TMDE.

OBSERVATION: The LAO was designated as the responsible agency for supervising the TMDE Team.

DISCUSSION: The LAO has only an indirect relationship with TMDE. TMDE Detachments are attached to Division DISCOMs, usually the MSB. MSB Commander provides letter input or suggested comments to the TMDE Det Commander. With an LSG, the deployed TMDE could be attached directly to a TOE organization. In ANDREW it would have been logical for the TMDE detachment to be a part of the 80th Ord Bn. In multi-division operations, such as ODS, the TMDE Bn would deploy and the TMDE teams would deploy with its respective division, but report to the TMDE Bn.

RECOMMENDED ACTION: That the TMDE Detachment not report directly to the LAO.

LAO AND AOAP.

OBSERVATION: AOAP Lab was not officially available until 10 September, C+13.

DISCUSSION: It took over a week to get a decision on whether an AOAP Lab would deploy to the AO. A decision tripper is needed to determine when the Lab would deploy. For example, the Lab would deploy if two full Aviation Bdes were deployed, or if two full divisions were deployed.

RECOMMENDED ACTION: That MRSA and FORSCOM develop a model equation that would determine when it was feasible to deploy an AOAP Lab.

UNIFORMS FOR CIVILIANS.

OBSERVATION: AMC civilians are required to wear BDUs or uniforms prescribed by the ARFOR Cdr on exercises and operations.

DISCUSSION: The LAO made a conscious decision for civilians not to wear military uniforms in Humanitarian Relief Operations. The reason was to prevent victims from asking LARs for help in placing plastic on rooftops, carrying water, finding food, etc. If anyone in uniform refused to help, it would have been a media event. While the LARs would be more than willing to help civilians in a direct manner, they could be best utilized in their primary mission of maintaining readiness of equipment that is used to revitalize South Florida. On military operations, civilians should continue to wear uniforms.

RECOMMENDED ACTION: That civilians be exempted from wearing military uniforms while supporting Humanitarian Relief Operations.

EQUIPMENT READINESS-AVIATION.

OBSERVATION: Aviation Readiness was made available on the day units arrived in the theater.

DISCUSSION: A Corps, JTF, and AMC Aviation Officer tracked aviation readiness on a daily basis and was ready at all times to request assistance from AMC assets to correct any unusual problems in obtaining parts, LARs, or Engineer assistance.

RECOMMENDED ACTION: That the procedure utilized in this operation (similar to ODS) be retained and institutionalized.

TF MAINTENANCE CAPABILITY.

OBSERVATION: As of C+15, there has been no assessment of maintenance capability in the AO.

DISCUSSION: To date, at least four DS non-divisional Maintenance Companies are listed in 1st COSCOM's TF; however, only the 659th is operational for an AO that stretches from West Palm Beach to the Florida Keys. Units can get faster service by calling LARs than by calling their respective DS Maintenance Company. The 659th is doing an excellent job, it is just too remote to serve the needs of the AO.

RECOMMENDED ACTION: That Corps and COSCOM re-evaluate the maintenance capability in the AO as the task force expands and contracts, and take action appropriately.

AREA SUPPORT BY NON-DIV MAINTENANCE CO.

OBSERVATION: No distinct areas of support were developed that would aid the maintenance company or the supported units in planning maintenance operations.

DISCUSSION: Non-Div Maintenance Companies provide support on an area basis to all non-div units in or passing through their respective areas. Normally this is determined by drawing support boundaries on Log maps and distributing to all units through G4/S4 channels or through AG distribution. This was a lesson learned in ODS that was repeated in ANDREW. All DSUs are prepared to support all units; however, there are some area relationships as well as some functional relationships that should be developed and executed.
RECOMMENDED ACTION: That the 2d MMC with coordination with Corps G4 publish overlays showing area support boundaries.

DIRECT SUPPORT MAINTENANCE.

OBSERVATION: Direct support (DS) maintenance for units OPCON to AMC, Logistics Support Group (LSG).

DISCUSSION: The 80th Ord Battalion subordinate units were attached to the Army Forces, 18th Abn Corps, 1st COSCOM, and OPCON to AMC, LSG. Based on their attachment to 1st COSCOM, all DS maintenance was performed by 1st COSCOM DS maintenance companies. Maintenance priority went to 18th Abn Corps units, thus creating unacceptable DS downtime for AMC units. The mission of the AMC units were severely hampered by the lack of identified DS maintenance support.

RECOMMENDED ACTION: That a dedicated DS maintenance contact team consisting of personnel capable of performing wheel and materiel handling equipment maintenance be attached to the support battalion responsible for operating the humanitarian depots. The size of the contact team will depend on the quantity of equipment that it must support.

AMC EOC SOP.

OBSERVATION: AMC EOC SOP

DISCUSSION: AMC EOC needs to publish and distribute an external SOP to provide the USAMC-LSG and customers of the wholesale system information on what the EOC can provide. LAO is frequently required to coordinate actions with the EOC. Two prime actions are calling forward LARs and obtaining information on requisitions. Neither of these functions has been accomplished satisfactorily. MSC EOCs and DLA EOC override the AMC EOC on almost every issue resulting in confusion to the LAO and USAMC-LSG.

RECOMMENDED ACTION: That AMC EOC publish an external SOP or LOI for use by AMC employees and customers.

USE OF CHAIN OF COMMAND.

OBSERVATION: Elements of the JTF Staff were initially unclear as to the organizational structure and chain of command of AMC and its subordinate units.

DISCUSSION: During the initial stages of the operation, J-staff elements were unclear as to the organizational structure and chain of command of AMC. As a result, they were calling subordinate units for information for reports/briefings. This process resulted in duplicate reporting and effort, as well as confusion when data was not consistent.

LESSON LEARNED: USAMC LSG should be established immediately as a subordinate element (OPCON) to the JTF and required JTF reporting must be through the LSG staff.

RECOMMENDED ACTION: Organization and functions of the AMC LSG must be explained to the JTF staff. Further, USAMC LSG must be immediately established upon arrival in the AO as a subordinate element (OPCON) to the JTF. Reporting must flow from LSG staff to JTF staff.

PRIORITY TASK CHECK LIST.

OBSERVATION: Relief operation support personnel arrived in the area of operation with inadequate insight of scope of work and tasks required to complete the mission.

DISCUSSION: A joint civil/military operations requires a mission essential task list just like military operations to prioritize work and equipment requirements. There was no METL established for the JTF. As a result, prioritizing the work of scarce personnel and equipment resources was not accomplished in a timely and efficient manner, and unnecessary stress and effort was expended to accomplish needed tasks.

LESSON LEARNED: Early deployment of an already established METL for humanitarian/disaster relief operations is a necessity to accomplish in a timely and efficient manner the tasks on hand.

RECOMMENDED ACTION: That a METL for humanitarian/disaster relief operations be established.

NO STATE LNO IN JTF OPERATIONS.

OBSERVATION: The state of Florida did not have a permanent LNO in J3 Operations Section.

DISCUSSION: The absence of a State LNO in the JTF Operations Section unnecessarily complicated coordination efforts with required state agencies by the JTF. Too much time was taken to effect required coordination because of inadequate knowledge on agency responsibilities

and points of contact. The presence of a State LNO could have eased that process and actually facilitated action on needed tasks.

LESSON LEARNED: A State LNO should always be a permanent member of the JTF staff. RECOMMENDED ACTION: That a State LNO be collocated with other LNOs in J-3 Operations Section.

GUIDANCE FOR INTEGRATION OF FUNCTIONS.

OBSERVATION: JTF guidance as to how ARFOR (724th MSB) was to integrate itself into the Florida State operation at West Palm Beach and take over functions from local volunteers and Red Cross was inadequate and not well coordinated.

DISCUSSION: The 724th Main Support Battalion (MSB) was instructed to occupy West Palm Beach and assist the State in operating that facility. An OPLAN or OPORD was never issued. As a result, procedures had to be developed as the effort evolved, causing some confusion, duplication of effort, and initially straining relationships with on site agencies.

LESSON LEARNED: Any mission tasking for an ARFOR unit should be issued via an OPORD or FRAGO.

RECOMMENDED ACTION: That procedures be developed now for future operations of this type which specify fundamental basis of coordination for dealing with state, county and private organizations.

UNCLEAR COMMAND RELATIONSHIP BETWEEN 724TH MSB AND ARFOR COMMANDERS.

OBSERVATION: Commander and Staff from 724th Main Support Battalion were required, because of their mission, to report and respond to Commander, JTF, AMC and 1st COSCOM.

DISCUSSION: Because of their mission at West Palm Beach, the Cdr, 724th MSB was required to report and respond to three separate commanders. This created duplicate reporting, confusion on priority of effort, and frustrations for the chain of command. This situation could have been avoided if the 724th MSB had been placed OPCON to the USAMC LSG.

LESSON LEARNED: There is a need for a CSS unit at the State Truck Intercept Point. This unit should always be OPCON to the USAMC LSG.

RECOMMENDED ACTION: That in future humanitarian/disaster relief operations, a CSS unit which is OPCON to USAMC LSG be assigned the mission to assist at the State Truck Intercept Point.

TRANSITIONING OPERATIONS/EQUIPMENT.

OBSERVATION: Procedures for transitioning operations/equipment to FEMA and state/county authorities are not in place.

DISCUSSION: Procedures for transitioning operations/equipment to FEMA and state/county authorities did not exist. As the Army prepares to transition required equipment to continue disaster support operations to these organizations, procedures must be published and distributed to ensure the transition and accounting for government furnished equipment (GFE) is properly accomplished.

LESSON LEARNED: Procedures for transitioning must be SOP prior to initiation of humanitarian relief operations.

RECOMMENDED ACTION: That written procedures be established and made available to appropriate DOD personnel involved with the Disaster Relief Operations.

REIMBURSABLE ACCOUNT FUNDING LIMITATION.

OBSERVATION: Funding limit on the reimbursable account established by AMC exceeded the funding ceiling that FEMA agreed to reimburse in the Mission Assignment Letter issued by FEMA for the Army Humanitarian Depot system. (This was caused because the reimbursable account was established before FEMA issued the Mission Assignment Letter.)

DISCUSSION: When FEMA requests disaster relief assistance from DOD, FEMA issues a Mission Assignment Letter requesting the assistance and establishing a funding ceiling on costs for which it will reimburse DOD. This letter is AMC's authority to establish a reimbursable account to capture all costs for assistance AMC provides at FEMA's request. The limit on this reimbursable account should not exceed the funding limit established by FEMA. If the Army expends more costs than the FEMA funding limitation, the Army runs the risk that these costs will not be reimbursed by FEMA. If the Army does not have sufficient funds to cover the excess costs, a violation of the Anti-Deficiency Act may occur.

LESSON LEARNED: Theoretically, the ceiling on the established reimbursable account should not exceed the funding limit established by FEMA.

RECOMMENDED ACTION: Ceiling on the reimbursable account should not exceed ceiling provided by FEMA unless DA determines that it has sufficient funds to cover nonreimbursable costs and is prepared to absorb those costs without reimbursement from FEMA.

MISSION AUTHORITY TO PROVIDE DISASTER RELIEF ASSISTANCE.

OBSERVATION: FEMA did not issue a Mission Assignment Letter requesting that AMC provide disaster assistance prior to AMC commencing assistance efforts.

DISCUSSION: The Stafford Disaster Relief Act provides that DOD may perform disaster relief operations when specifically requested by FEMA. Furthermore, the Act provides that DOD may be entitled to reimbursement from FEMA for such assistance. The normal request procedure provides that prior to a Federal agency providing assistance, FEMA will issue a written Mission Assignment Letter requesting specific assistance and establishing a funding limitation for reimbursement purposes. There is no assurance that expenditures in excess of the funding limitation will be reimbursed by FEMA. At the outset, FEMA did not issue a Mission Assignment Letter to DOD requesting the establishment of a Humanitarian Depot System. Rather, the Mission Assignment Letter was not issued until AMC specifically requested the issuance of the letter almost two weeks into the operation. Thus, when AMC began providing disaster assistance,its authority to provide such assistance was questionable, and there was no assurance that FEMA would reimburse AMC for the assistance provided by AMC.

LESSON LEARNED: AMC should ensure that a Mission Assignment Letter is issued prior to commencing disaster relief assistance, or immediately thereafter.

RECOMMENDED ACTION: Ensure that a Mission Assignment Letter is issued prior to commencing disaster relief assistance.

FUNDS AVAILABILITY CERTIFICATION.

OBSERVATION: The AMC LSG contracting officer did not possess a certification that funds were available before he awarded contracts for the local procurement of items and services necessary for the AMC LSG to provide disaster relief assistance.

DISCUSSION: Army regulations provide that prior to awarding a contract, the contracting officer must have a certification from the accountable officer that funds are available for obligation in the amount of the contract. This certification was not provided to the contracting officer at the outset of the operation. Failure to possess this certification could have resulted in a violation of the Anti-Deficiency Act.

LESSON LEARNED: The LSG contracting officer must have certification of funds availability prior to awarding contracts.

RECOMMENDED ACTION: Provide the contracting officer with a certification of funds availability prior to the contracting officer deploying to the disaster area. The funds certification should be of sufficient amount to cover expenditures until a formal Resource Management procedure is established for the disaster relief operation. Thereafter, a fund certification should be provided for each contract action.

DESIGNATION OF CONTRACTING ACTIVITY.

OBSERVATION: At the outset of the operation, a formal designation of the contracting activity for the LSG was not made.

DISCUSSION: There was no formal designation of the contracting activity for the LSG. The first contracting officer to arrive in the disaster area was from ATCOM. However, ATCOM had not been designated as the contracting activity. Confusion existed as the LSG's contracting activity.

LESSON LEARNED: A contracting activity must be designated from the outset.

RECOMMENDED ACTION: A contracting activity be designated or established for the AMC LSG on a permanent basis.

LACK OF SOP/CCIR.

OBSERVATION: As an ad hoc Task Organization, the Logistics Support Group did not have an SOP, organization and functions manual, or identified Commander Critical Information Requirements (CCIR).

DISCUSSION: The lack of established critical procedures, organization and functions and commander information requirements, slowed the staff in development of a clear understanding of requirements, needs, organization functional responsibilities and alignment. Reporting, briefing, information processing and presentation, although in many cases will be changed based upon the personality of the Chief of Staff or Commander, should be standard enough for the development of an on-the-shelf operational SOP.

LESSON LEARNED: An SOP which defines organization function, CCIR, reporting requirements and procedures would have prevented a trial and error learning process.

RECOMMENDED ACTION: Prepare generic SOP and organizational manual for a Logistics Support Group headquarters to facilitate the immediate productivity of an ad hoc staff.

AD HOC STAFF VERSUS BATTLE ROSTER.

OBSERVATION: The Logistics Support Group staff was an ad hoc group of personnel from various AMC commands without any previous association and humanitarian relief training or experience.

DISCUSSION: The staff that came together lacked initial familiarity, cohesion, experience or knowledge of the concept task, organization, or procedures related to a log support group. Staff responsibilities were continually redefined as new staff sections arrived without a full recognition of their mission, role or place in the organization. To the credit of the individuals, they quickly

adapted to the demands of the mission and the requirements of the command. SOPs were put in place as time passed. Cohesion was built over time; however, initial efficiency was hampered.

LESSON LEARNED: Cohesion and effectiveness is built through training and exercise.

RECOMMENDED ACTION: The Log Support Group organization be formalized and personnel be designated by battle roster to fill the TDA. Also that semiannual CPXs in AMC HQ be conducted in conjunction with FEMA to train, exercise and familiarize the team with a series of possible missions, establish SOPs, establish commander critical information requirements, and learn the possible DOD roles in humanitarian support.

LACK OF UNDERSTANDING OF OTHER AGENCIES.

OBSERVATION: Little knowledge existed or continues to exist among most individuals involved in Operation Andrew as pertaining to the Federal Response Plan, FEMA organization, ESF responsibilities, authorities or structure.

DISCUSSION: The Federal Response Plan and FEMA organization are not understood by most involved in JTF Andrew support to South Florida. As a result, much energy and effort is wasted as individuals duplicate, contradict, or confuse actions while they learn the ropes.

LESSON LEARNED: All personnel must be familiar with the Federal Response Plan.

RECOMMENDED ACTION: Have available in a deployment package the Federal Response Plan and other implementing documentation to ensure all responsible individuals can become familiar with the roles, authorities, functions, and responsibilities within the plan.

OPCON OF 724 MAIN SUPPORT BATTALION (MSB).

OBSERVATION: 724 MSB, an ARFOR unit, was tasked to operate the truck intercept point at West Palm Beach.

DISCUSSION: This site, while a key part of the USAMC-LSG depot distribution system, belonged to the State; 724th MSB to ARFOR (1st COSCOM) was OPCON to 1st COSCOM but actually performed duties for the USAMC-LSG. As a result, 724th MSB worked for three separate elements - USAMC-LSG, 1st COSCOM, and the State of Florida. While the 724th MSB was able to work within this framework, it was very difficult and is not the desired approach. Since future humanitarian/disaster relief operations will require a similar truck intercept point, we need a battalion-size force to do this mission and it should be formally attached to USAMC-LSG.

RECOMMENDED ACTION: Attach a non-divisional S&S battalion to the USAMC-LSG to run the intercept point.

EXPANDING THE DEFINITION OF CONTINGENCY OPERATIONS.

OBSERVATION: The definition of "contingency operations" does not clearly include disaster relief and humanitarian operations and could lead to disparate treatment of similarly situated soldiers.

DISCUSSION: In order to maintain morale, esprit de corps and physical as well as mental fitness, the Commander, USAMC-LSG wanted to establish a command MWR program. Before AMC could provide these funds, a legal determination that the term "contingency operations" includes disaster relief and humanitarian operations was necessary. In order to avoid this delay during disaster relief or humanitarian operations and to permit commanders to plan for MWR activities, AR 215-2, Section V should be amended to expressly include disaster relief and humanitarian operations within the term "contingency" operations.

LESSON LEARNED: Army Regulations must be amended to clearly include disaster relief and humanitarian operations within the term "contingency" operations.

RECOMMENDED ACTION: AR 215-2 should be amended to include disaster relief and humanitarian operations within the term "contingency" operations.

A COSCOM LNO AT USAMC-LSG FORWARD DEPOTS.

OBSERVATION: A COSCOM LNO was initially not located at the forward depots to expedite coordination process with COSCOM Distribution Centers.

DISCUSSION: Initially, a COSCOM LNO was not located at USAMC-LSG forward depots. The LNO was moved later to Homestead HD. This action resulted in closer coordination between the depot and distribution centers (DC) and established an essential link to all COSCOM DCs, ensuring needed supplies were being moved from depots to distribution centers.

RECOMMENDED ACTION: That in similar operations, an LNO be placed immediately at forward depots to affect smooth coordination and execution.

EARLY DEPLOYMENT OF AAA.

OBSERVATION: The early arrival of the U.S. Army Audit Agency (AAA) to the area of operation was advantageous to the JTF.

DISCUSSION: A decision to employ AAA early to the Area of Operation (AO) was a smart move. It provided this agency a good perspective of the initial stage of relief operations. Furthermore, the officials could see the magnitude of activity across the entire devastated area. This allowed AAA a better understanding and appreciation of the effort the multi-services were

performing and involved them in the planning cycle to modify existing regulations and policies to permit expeditious support of humanitarian relief operations.

RECOMMENDED ACTION: That AAA arrive early to any humanitarian/disaster relief area of operation allowing this agency to see, first hand, the planning and execution of humanitarian relief operations and assist in resolving any regulatory or policy problems hindering humanitarian relief efforts.

TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT (TMDE).

OBSERVATION: Deployment of TMDE support went well.

DISCUSSION: Eight personnel and one ea AN/GSM-287 set deployed from Ft Stewart, GA to Miami, FL beginning 7 Sep 92 (at the request of 82d ABN Div aviation) to provide area TMDE support. The team set up at Opa-Locka Airport, central to potential customers. However, most units did not deploy with TMDE because (a) of the perceived short-term nature of the deployment, and (b) a belief the humanitarian effort required little technical work.

LESSON LEARNED: Determine the TMDE workload prior to deploying a TMDE support package. Consider if TMDE may be evacuated to a pre-existing facility, or if a smaller TMDE team can do the work.

RECOMMENDED ACTION: Identify mission requirements prior to deploying TMDE support assets.

AMC TRANSITION TEAM - COMPOSITION.

OBSERVATION: As requested by Commander, LSG, HQ AMC identified early in the exercise a requirement for a "Transition Team." The make-up and expertise of the team members were critical to accomplishing the mission.

DISCUSSION: The team was to provide support to the LSG to develop a transition plan. Areas of property accountability and financial management had special emphasis. Some of the members had familiarity with the AHD system since they were part of the original staff. Others were intentionally chosen from home station. This mix allowed expertise not resident in the LSG to provide input to the planning process.

RECOMMENDED ACTION: The concept of a Transition Team be established in the USAMC Disaster Control Plan. Establish criteria for selection of team members which includes the following:

> Expertise in legal, resources management and property accountability are required. Member should have the rank/ability to expedite staffing through MSCs, AMCLG, AMCRM, and AMCCC.

Have representatives from outside AMC (e.g., USAAA) or from Internal Review and Audit Compliance Office to assist and provide independent assessments.

AMC TRANSITION TEAM - COMMAND RELATIONSHIP.

OBSERVATION: To facilitate this coordination process, the AMC CofS produced a "Personal for" message to MSCs and AMC staff. This message required addressees to identify a POC and be prepared to expedite staffing of the OPLAN.

DISCUSSION: The OPLAN needed input and concurrence from HQ AMC staff and MSCs and coordination and guidance from DA DSCLOG and DLA.

RECOMMENDED ACTION: AMC Transition Team, when needed in Disaster Situations, should act as the Commanders Special Staff or Advisory Committee.

AMC TRANSITION TEAM - OPERATING CONDITIONS.

OBSERVATION: It was an effective decision to move the Transition Team from Miami to Alexandria to complete the writing of the OPLAN.

DISCUSSION: The decision to move the Transition Team was based on two variables, namely: (1) TIME - Movement of the team to Alexandria took an entire day. However, the team gained access to the higher headquarters of AMC, DA, DLA and accelerated the staffing process. Locating the team at HQ AMC made it easier to obtain quick responses from the MSCs. (2) DISTANCE - True, the movement of the Transition Team put a great degree of distance between AO and the team, but realistically the team after its five day assessment and observation period actually was looking to remove itself from day-to-day operations of the AHD.

LESSON LEARNED: It was an effective decision to remove the team from the mainstream of LSG operations. With a short suspense the distance acted as a filter and kept the team focus on the mission. The AMC COC has sufficient communications in data link, fax and voice to make up for the distance between Miami and Alexandria.

RECOMMENDED ACTION: After a short intense on the ground assessment/observation period, the Transition Team removed itself from the system to formulate the plan. The best place is AMC COC. AMC COC is removed, yet has access to information in the AO. In addition, the AMC COC provides a good location and facilities for coordination with DA, DLA and MSCs.

PALLET RISERS REQUIREMENT.

OBSERVATION: Requirement for pallet risers.

DISCUSSION: The packaging and storage of civilian donated items did not lend itself to proper use of storage space inside the clamshell. Pallets could not be stacked, which forced more floor space to be used. A clamshell will fit approximately 500 pallets configured in four rows at a height of 25 feet. Pallet risers give greater storage capability.

RECOMMENDED ACTION: Recommend pallet risers become part of deploying units' packing list for future natural disaster relief operations.

CLAMSHELL USAGE.

OBSERVATION: Use of clamshells.

DISCUSSION: During this disaster relief operation, large amounts of donated items quickly filled available overhead storage areas. Excess items were required to be placed outside. Placing these items outside exposed them to bad weather and possibly caused further unwanted damage to food items and clothing. The need to have clamshell shelters erected early in disaster operations is a must to prevent more damage to critical items. Clamshell shelters provide excellent overhead protection as well as additional storage space.

RECOMMENDED ACTION: That clamshell shelters be available early in deployment and installation be conducted soonest in disaster relief operations.

TRIWALL BOXES.

OBSERVATION: DLA CONEX inserts, i.e., triwall boxes, do not perform well in humid climates.

DISCUSSION: Triwall boxes used to repackage clothing attracted moisture in the humid, tropical climate of South Florida. The boxes began to deteriorate and collapse under the weight of the clothes.

RECOMMENDED ACTION: Identify a substitute box for use in humid climates. The triwalls were marginally satisfactory, but only provide the full height double fold. This affords maximum utilization of primitive strapping techniques. (Banding equipment is required for boxes with bottoms and lids.)

U.S. POSTAL SERVICE (USPS).

OBSERVATION: Reception of donations through the U.S. Postal Service (USPS).

DISCUSSION: Donated goods marked for General Delivery - Hurricane Relief, South Florida Fairgrounds, have accumulated in West Palm Beach. Contents are unknown, but delivery is required. This was not covered or considered in the transition planning process.

RECOMMENDED ACTION: Identify a means to receipt for donations through the USPS. Suggest forwarding to Red Cross for disposition.

CLASS I AND CLASS IV BULK DONATIONS.

OBSERVATION: Coordination of bulk Class I and Class IV donations caught the disaster relief phone line representatives off-guard. On several occasions, they were unable to coordinate destinations.

DISCUSSION: Bulk shipments of Class I and Class IV began to arrive in the second week of the relief effort. Most were corporate donations sought by the "special needs" unit operating at West Palm Beach. The arrival of these shipments, while welcomed, would have been better coordinated at the Class I point serving the MKTs. Attempts to divert Class I deliveries for ultimate use by the MKTs were met by roadblocks in J-4 food service.

RECOMMENDED ACTION: A knowledgeable representative from J-4 food service should provide guidelines for diversion and deliveries of bulk shipments to a Class I point versus the forward humanitarian support depots. This representative should work with the AMC LNO and CIMIC Team to identify and divert Class I cargo for use in food service operations.

DISTRIBUTION OF SUPPLIES.

OBSERVATION: Conversion from "pure" push distribution to multiple relief centers proceeded smoothly to a system of hybrid "push-pull" to two forward humanitarian support depots.

DISCUSSION: During the initial 10 days of relief effort, all supplies were funneled directly into Red Cross, churches, and civic relief centers. Supplies were shipped from West Palm Beach to more than a dozen locations. Soon these relief centers were overwhelmed with supplies arriving 24 hours a day. Relief workers could not unload trucks, distribute supplies, and care for the needs of victims at the same time. Upon approval of AMC Depot Plan (4-5 Sep), AMC placed an LNO at West Palm Beach. With the cooperation of state, volunteer, and military personnel, we successfully converted (in a three-day period) from pure push to hybrid push-pull. Education, simplification of forms, and a desire to respond to relief centers were key to the conversion. While the DS/GS conversion worked well, DS and unit distribution was unable to get supplies routinely to relief centers.

RECOMMENDED ACTION: DS forward humanitarian support depots need a light transportation company attached to conduct local haul to relief centers during daylight hours. While making deliveries, drivers can assess critical needs and pass them up the chain. EEFI could be developed and passed through CIMIC channels. These feed into the hybrid push-pull system. At West Palm Beach we configured "combat loads" which could be pushed on a routine basis, while unusual or special needs were pulled through based on depot request. The entire system should be brought together by CIMIC to do a relief preparation of the disaster area (i.e., IPB) along with a log estimate.

ACCOUNTABILITY OF DONATED GOODS.

OBSERVATION: Accountability of donated goods existed for large corporate donations, i.e., solicited donations. Individual donations at West Palm Beach were not tracked unless someone asked for a receipt.

DISCUSSION: In-bound donations were not formally tracked. Result - obtaining stock status was difficult. During initial phases, all transport actions were push in nature, i.e., as quick as supplies came in, they were sorted, palletized and prepared for shipment south. Accountability of outbound shipments was very good. Manifests were completed for each truck; prior to departure the manifests were collected and input into a makeshift dispatch program. This program used commodity codes based solely on the type of donated goods. Upon conversion to a pull system, in which the staging area shipped to only the two forward depots, we converted to military classes of supply. This was readily adapted by the civilian volunteers.

RECOMMENDED ACTION: Revise and edit dispatch program to utilize in future disasters. This does not require a complex procedure, simply a form with the number of pallets, boxes, or bundles donated.

TRANSITION OF RELIEF STAGING AREA.

OBSERVATION: Transition of relief staging area responsibilities from West Palm Beach to Dade County.

DISCUSSION: The turnover of operation of fairgrounds to a new area in Dade County did not overlap. A unilateral decision was made by state personnel to shut down receipts prior to operations starting at Goodwill and Daily Bread reception points. Result - donated goods continued to arrive in West Palm Beach area without forwarding instructions. What had been a smooth flow of goods into the affected area suddenly ceased, with the potential of not supporting victims.

RECOMMENDED ACTION: Transitioning requires coordination of all parties prior to the execution of the handoff, i.e., a passage of lines coordination. The numerous organizations need to have an approved transition plan with time line to provide uninterrupted service to those in need.

DISTRIBUTION.

OBSERVATION: Donated materiel was received, repackaged (if required), loaded, and sent out in convoys with police escorts to all relief centers and forward humanitarian support depots. The forward depots were unable to distribute to relief centers. Divisional personnel planned on making distribution to relief centers, but they seemed unable to do this. As a result, supplies backed up at forward depots.

DISCUSSION: Failure of the forward distribution net to locate and deliver supplies to all relief centers resulted in certain areas of population going without while others had plenty. Advertisement of the availability of goods to the civilian relief centers was incomplete. During the initial days of transition between push and pull, getting the word out through Red Cross, United Way, and Salvation Army was difficult. The key to avoiding "stampedes" at the HSD is communicating and coordinating pick-ups with unit distribution and relief centers.

RECOMMENDED ACTION: Designated relief centers should have scheduled delivery times with transportation. HSDs push to relief centers based upon demand history and critical items priority.

PREVENTATIVE MEDICINE TEAMS.

OBSERVATION: Preventative Medicine Teams ascertained that contaminated bottled water was shipped to relief centers and forward depots.

DISCUSSION: Several brands of bottled water were determined to be contaminated at the source or during storage. Preventative Medicine Teams were not proactive from the beginning of supply operations. However, once the water issue surfaced, the team corrected the problem to prevent further shipments.

RECOMMENDED ACTION: PM Team needed in receiving and shipping to spot potentially contaminated products prior to shipment to relief centers, forward depots and Class I point. Class I must be segregated from all general cargo to facilitate screening of incoming donations.

OFFICE AUTOMATION EQUIPMENT.

OBSERVATION: ADP equipment was not available to adequately support the USAMC-LSG disaster relief staff operations.

DISCUSSION: Upon initial deployment the USAMC-LSG staff had a nonexistent capability of office automation. Most of the initial equipment was brought into the area by deployed personnel. A few items of support equipment were received from GSA and FEMA, but this capability was limited, even when the operation stabilized. Simply, USAMC-LSG must plan to be self-supported.

The G-1 staff endured 3 days of no automation. To date the equipment on hand (3 ea laptops and 1 ea laser printer) does not allow the staff to perform the mission normally accomplished by this staff. The G-2/3 staff published the first automated SITREP on the fifth day of operations. This single laptop was used to support a staff of 13 personnel. The G-4 staff had 7 days of personnel without any automation support. At the time, 14 personnel were operating out of this office. All other staff elements have experienced similar events because of inadequate automation equipment available.

The previous description resulted in a situation that brought about a tremendous amount of decreased capacity and inefficiency. Numerous manhours were lost.

RECOMMENDED ACTION: An ADP specialist must be deployed in conjunction with the task force. This person will function as courier to bring the assembled equipment in the area. Upon arrival, a library of the pre-packaged software would be set up (one copy). This would serve as a reference for all staff offices, and would be augmented by the ADP specialist.

Pre-deployment packages should be compiled for immediate availability. The following hardware/software configuration is required:

HARDWARE: 386 SX or DX (laptop)
100MB+ Hard Drive
3.5" Floppy Drive (1.44MB)
9600bps Fax 2400bps Modem (Int)
2MB RAM (min)
1 Box Disks (3.5 HD)
Carrying Case
Trakball
All cabling (including power strips)

SOFTWARE: Menu System (uniform)
FAX Package
Spreadsheet (123 Pref)
Database (DBase Pref)
Word Processor
Graphics (HG Pref)
Communications (Carbon Copy Pref)

These systems should be assembled to support the Staff in the following quantities:

USER	QUANTITY	OTHER EQUIPMENT
CMD Section	1 Ea	Printer (Personal Laser)
SGS	2 Ea	1 Ea Laser Printer w/Spooler
HQ Cmdt	1 Ea	1 Ea Printer
G-1	8 Ea	2 Ea Laser Printer w/Spooler and oversized Paper Tray
	1 Ea	Electric Typewriter
	1 Ea	TACCS Computer (Pers Software)
G-2	1 Ea	1 Ea Printer
G-3	2 Ea	1 Ea Printer w/Spooler
	1 Ea	Electric Typewriter
G-4	2 Ea	1 Ea Printer w/Spooler
	1 Ea	TACCS (Supply/PBO Software)
Contracting	2 Ea	1 Ea Printer w/Spooler
	1 Ea	Scanner w/OCR Software
	1 Ea	Electric Typewriter
PAO	3 Ea	1 Ea Laser Printer w/Spooler, Publishing Software (Page Maker Pref)
SJA	2 Ea	1 Ea Printer, CD Rom, LAAWS, Enable
Historian/AAR	2 Ea	1 Ea Laser Printer w/Spooler*
		1 Ea Joint Uniform Lessons Learned
		System (JULLS) Software
		1 Ea Scanner w/OCR Software
		1 Ea Multi-Mate or Word Perfect

*Spoolers allow printer sharing. Should accommodate numbers outlined.

In addition, to support all staff activities, the following is required:

1 Ea Med/High Volume Copier (double sided and sorting req)
1 Cs 3.5" HD Microdiskettes
30-day supply Plain Paper

1 Ea Plain Paper Facsimile
10 Ea 50-Foot Heavy Duty Extension Cords
2 Ea Manual Typewriters

The graphics office requires special support. In order to meet their needs, a desktop 386DX, 8MB RAM, 200MB+ Hard Drive as a minimum is essential. The printer to support this must have high resolution color quality w/8MB RAM. A special set of software is also required, as a minimum HG 2.3, HG 3.0, and Freelance Graphics from LOTUS.

TOTALS: 26 Ea Pre-Deployment Packages
5 Ea Laser Printers w/Spoolers
1 Ea Personal Laser Printer
6 Ea Printers w/Spoolers
2 Ea Scanners w/OCR Software
2 Ea TACCS Computers
1 Ea Graphics Support System
3 Ea Electric Typewriters
1 Ea Staff Support Package

Above mentioned Software as outlined

In order for any deployed element to function properly in a forward environment, office automation must be considered and basic requirements met. For a staff element to provide timeliness and responsiveness to the everyday routine, automation equipment must deploy with the advance elements. The above outlined package is required to support a staff as assembled for JOINT TASK FORCE ANDREW.

VIDEO SUPPORT.

OBSERVATION: Dedicated video support.

DISCUSSION: A video production specialist arrived on Day Seven and went to work immediately. He brought two sets of camera equipment: 1 VHS camera, 15 VHS tapes, 2 VHS batteries, 1 Hi-8 camera, 40 Hi-8 tapes, and 3 Hi-8 batteries. Video support required includes video for Public Affairs purposes and documentation. Video footage from this operation was sent to Washington and used in a production to brief senior officials on the operation. In addition, 3 unit vignettes were produced on site. Additional footage was gathered to do future productions.

LESSON LEARNED: AMC Public Affairs must define equipment requirements prior to deployment. What is desirable equipment must be weighed against what is available. Because the 22d Mobile Public Affairs Detachment was located nearby, the Command was able to use their equipment during off-hours to do simple editing. This capability may not be available in all instances.

RECOMMENDED ACTION: A video production specialist should arrive about 2 days after the public affairs specialist (in this case, on Day Three). A Beta camera and recorder should be part of the equipment. A playback capability for all types is necessary so that the Commander and Staff can review progress of the operation. Audio/video connectors to the preview monitor must be part of the equipment brought by the production specialist.

PHOTOGRAPHIC SUPPORT.

OBSERVATION: Dedicated photographic support.

DISCUSSION: Photographer should arrive at the earliest possible time and be prepared to work immediately. The photographer should bring 2 35mm cameras, an assortment of lenses, flash attachments, batteries, and film. He should be prepared to work with Contracting to establish a local contractor for film processing and photographic supplies. Photo support required includes photos for news releases and articles, slides for briefings, military ceremonies, damage, and documentation.

LESSON LEARNED: USAMC-LSG photographer arrived on Day Three, established support contracts, familiarized himself with the organization, and went to work. For the first time, USAMC was able to capture all aspects of the operation in slides and photographs. The slides and photographs were used on site to support briefings and Public Affairs activities. In addition, photos and slides were sent to Washington by Express Mail.

RECOMMENDED ACTION: In future USAMC-LSG operations, the photographer should arrive on Day Three or earlier, depending on the situation. Specific guidance should be given as to the type of film needed, i.e., black and white print and color slide.

PUBLIC AFFAIRS STAFF.

OBSERVATION: Selection of a public affairs officer and staff with the necessary skills is critical to the USAMC-LSG mission.

DISCUSSION: The public affairs officer and public affairs specialists must be able to perform the entire spectrum of public affairs duties with a minimum of guidance and direction. Work expected includes writing for external and internal audiences, media relations, and community relations. Typical public affairs products include: fact sheets, news releases, articles and outlines for installation and command newspapers, media advisories, and scripts for video and slide presentations. The public affairs officer and staff must be prepared and able to provide public affairs advice and support to all levels of the command, including attached units. In addition, the USAMC-LSG PAO must be prepared to provide guidance and support to any other public affairs resources which may be assigned or attached to the other military units in the USAMC-LSG. Other public affairs resources may include additional duty public affairs officers and NCOs or public affairs teams. Support includes photo processing, assistance in distributing articles and news releases.

LESSON LEARNED: Since the majority of experienced public affairs personnel are civilian, individuals must volunteer for duty in operations. If experienced personnel do not volunteer, the command could have inadequate public affairs support for an operation.

RECOMMENDED ACTION: MSCs should identify the public affairs personnel who have a broad spectrum of skills within their organizations. Since the majority of the command's experienced public affairs personnel are civilian, these individuals must be encouraged to volunteer for operations, since their skills are critical to the operation. Further, such public affairs personnel in the grades of GS-12 and above should attend the Joint Public Affairs Advanced Course so that they are trained in the public affairs requirements of joint operations.

CLAMSHELTER STRIKING/REMOVAL.

OBSERVATION: Clamshelter hurricane and base-plate anchors are not recoverable once the shelter is struck.

DISCUSSION: After the shelter is struck, a number of cables (70-100) are left protruding 10-24 inches above the ground level. Efforts were made to pull them up, but in every case the cable stretched and broke above ground level, leaving digging out the only means of removal, where required.

LESSON LEARNED: (1) Hurricane end base-plate anchors cannot be pulled out of the ground. (2) Depending on the future use of the clamshelter location, removal of the cables or cutting of the cables at some depth below ground level is desirable. (3) Removal of the cables below ground level requires some type of earth removal machine, e.g., a backhoe, and heavy bolt cutters or a torch.

RECOMMENDED ACTION: Consider lessons learned for future exercises.

CLAMSHELTER ERECTION/STRIKING.

OBSERVATION: The erection and striking of clamshelters requires a knowledgeable technician and laborers only.

DISCUSSION: Clamshelters are well suited for an operation of this sort since it comes complete with all the tools and equipment required for erection and striking. There are items, however, that are not recoverable, e.g., anchors, roll pins, etc., that are part of and included in the relocation kit.

LESSON LEARNED: Some of the clamshelters that were used in Saudi Arabia had not been brought up to a condition code A status and were, therefore, short some items critical to the erection.

RECOMMENDED ACTION: Always return the clamshelters to depot after use for repacking, cleaning, inventorying, and bringing up to condition code A where they will be ready for future exercises.

CLAMSHELTER ERECTION/STRIKING LABOR REQUIREMENTS.

OBSERVATION: The ideal work force required to erect or strike a single clamshelter is 1 technician and 15-20 laborers.

DISCUSSION: Based on the experience gained during this exercise, it has been determined that the ideal work force required to erect or strike a single clamshelter is 1 technician and 15-20 laborers. When striking, there is a requirement for an additional trained carpenter to repair and build, as necessary, boxes (storage/shipping containers). Given that the laborers are dedicated, therefore negating the requirement to train a new crew each day, a single clamshell with doors on each end can be erected or struck in 36 clock hours; without doors, 28 clock hours.

LESSON LEARNED: (1) Dedicated erection/striking crews are essential. (2) Storage/Shipping crates should be protected from damage as much as possible and saved for repacking. (3) An experienced carpenter is essential to the repacking process. (4) Movement and loading of boxes/crates requires a forklift with at least 5,000-lb capacity, with forks that have at least a 6-foot reach.

RECOMMENDED ACTION: Consider lessons learned for future exercises.

COMBAT CAMERA TEAM.

OBSERVATION: USAMC-LSG did not make timely use of CCT.

DISCUSSION: CCT was in the AO as of 25 Aug 92 with ten people to take still and motion pictures in support of JTF operations. CCT took still photos and videos, covering a variety of subjects. CCT did not cover humanitarian depots and other USAMC-LSG operations thoroughly. HQ AMC failed to task CCT through the U.S. Army Visual Information Center in the Pentagon to cover USAMC-LSG operations.

LESSON LEARNED: CCT is a valuable asset in the JTF arena, which could provide still pictures and video coverage of USAMC-LSG operations. In the future, HQ AMC should task CCT through the U.S. Army Visual Information Center in the Pentagon to cover USAMC-LSG operations. USAMC-LSG historian should coordinate the implementation of that tasking in the AO with CCT.

RECOMMENDED ACTION: HQ AMC should task CCT through the U.S. Army Visual Information Center in the Pentagon to cover USAMC-LSG operations in the AO in the future. USAMC-LSG historian should coordinate with CCT in the AO to ensure timely and comprehensive coverage of USAMC-LSG operations.

SITUATION REPORTING PROCEDURES.

OBSERVATION: Identifying and presenting critical information needs to the LSG CDR and staff.

DISCUSSION: The need for a standard Situation Report to provide essential information on Humanitarian Depot operations was identified as mission essential. Accordingly, the G-3 Section developed a standard report and placed it into operation. The SITREP was submitted by the Depot Command to the USAMC-LSG G-3 daily. Initially, reporting times were telephonic every four hours, starting at 0600, with a written report due at 1700, to summarize the last 24 hours. During the first week, this requirement was difficult to meet due to the lack of communications and speed at which logistics operations were occurring. As the Area of Operations matured, communications improved and additional staff personnel arrived, written reports were provided twice a day (1200 and 2400) with verbal updates on activities of command interest. Essentially, the items of interest to the command were personnel statistics, equipment readiness (pacing items that were critical to the Humanitarian Depot mission), depot site status, receipts/issues in tractor trailer equivalents and short tons, on hand balances by major category (to include Class IV construction materials, high demand items and noncritical items required at the relief sites), redistribution of assets, dollar value of those assets returned to depot and on hand balances of federal supplies.

RECOMMENDED ACTION: Current SITREP format is sufficient. Written reports furnished twice daily. Based on the Commander's concerns, provide updates throughout the day as significant status changes.

STAFF MEETINGS.

OBSERVATION: Log Ops updated the Commander on all operations and significant events.

DISCUSSION: LSG Staff meetings were held nightly after JTF's briefing and often concluded with taskers. The information presented to the commander reflected data extracted from the 1200 report. This report was consolidated by the depot and delivered to the G3 at approximately 1500 each day. Initially, log ops updated the commander on all logistics and operations. Each morning, an update of this data along with a Reading File with the various agencies' SITREPs was provided to the commander. The LSG Commander attended the JTF morning and evening briefings (the G3 provided mission essential data and charts for the LSG CDR to present to the JTF Commander. They included the AMC Significant Events, Short Tons of supplies shipped and received, On Hand Balance, and Redistribution of Assets to Include Dollar Value) and the nightly LSG briefings.

RECOMMENDED ACTION: Morning staff meetings (0700) utilizing data as of 1700 the previous day would allow the Commander, Chief of Staff, and staff elements to better focus efforts and resources during the day to accomplish the LSG mission.

G3 MISSION AND FUNCTIONS.

OBSERVATION: G3 Log Ops expanded from 2 personnel with 1 office to 20 personnel and 5 offices.

DISCUSSION: The original G3 was present for only a couple of days before being deployed to establish forward depot sites and coordinate actions which expedited depot operations. Since G-3 initially had the most people, staff level functions were redistributed from the G3 to their respective areas. Concurrently, the G-3 established an operations section which operated 24 hours daily, seven days a week (the only staff section to do so). Two teams were established with shift hours consisting of 0700-2000 and 1800-0800. G3 was divided into six sections, excluding the G3 and his NCOIC. They consisted of: Plans, Operations, Air, Communications, After Action Report and Administrative Sections. Once fully staffed, each section (minus Air) had a representative on the second (night) shift. The Plans Section was responsible for developing Operations Orders, Fragmentary Orders and force additions and redeployments. The Operations Section was responsible for taskings and coordinating daily operations. The Air Section controlled the Commander's aircraft and crew, Aviation Army Oil Analysis Program, Aircraft on Ground Team and any other aircraft related requests. The After Action Report Team collected observations from joint/internal/external operations in support of Hurricane Andrew and obtain lessons learned. The Communications mission involved the establishment of a communications network for all deployed units OPCON to the USAMC-LSG. The Administrative Section maintained the situational overlays in the Commander's office and briefing room. The Administrative Section, with the assistance of the NCOIC, obtained supplies, equipment, furniture and maps needed to establish the briefing room, which was second to none.

RECOMMENDED ACTION: Document missions and functions for each LSG staff element in a LSG SOP to avoid duplication of effort and make operations more efficient.

G3 RECORDKEEPING.

OBSERVATION: G3 Log Ops maintained an official log and files, made distribution on incoming and outgoing correspondence and assembled Reading Files for the primary staff.

DISCUSSION: G3 Log Ops initiated an official log using DA Form 1594 within 3 days of arrival. The log proved invaluable in keeping the staff section informed on current status and identified the action officer. This ensured all correspondence was reviewed with a note annotated addressing the impact to AMC operations. If there was no impact, no distribution was made and the document was filed. If an action was required, a note was added and forwarded to the staff element or unit for action. Files were established and maintained within the G3 section on all incoming and outgoing correspondence. These files served as the official reference library. Additionally, a consolidated daily Reading File was maintained which included the current SITREPs (FEMA, JTF, ARFOR, AMC and AMC-LSG), JTF Briefing and

AMC Significant Event charts, last daily log and OPORDs and FRAGOs published by the JTF in the past 24 hours. The night shift would file old correspondence. Reading Files for the Commander, Chief of Staff and G3 were assembled each night from this data for morning review and information.

RECOMMENDED ACTION: Inability to locate key documents can create unnecessary work and confusion. The G3 Administrative Section must perform the function of daily log maintenance and filing of official records for the LSG.

DEPLOYMENT

DEPLOYMENT.

OBSERVATION: LAO could have deployed earlier, but could not get release from AMC to depart.

DISCUSSION: LAO and LMS were prepared to depart early on 27 Aug 92, but could not get release or orders from AMC. In the meantime, ATCOM-TS sent two LARs to the area to begin assessing and supporting their respective equipment. While these two LARs did an outstanding job, they had no interface with LAO or direct supervision from anyone in the AO.

RECOMMENDED ACTION: LAO and tailored LAT should depart as soon as the tactical situation permits. In the case of Humanitarian Relief, this should be with the deployment of the first units and equipment. Deployment can be by commercial means as well as with deploying units. This advance party should assess the situation and be prepared to call forward the remainder of a team within 24 hours.

DOCTRINE

LOGISTICS SUPPORT GROUP CONCEPT.

OBSERVATION: Logistics Support Group Concept

DISCUSSION: During Operation Desert Storm (ODS), the U.S. Army Materiel Command (AMC) established a TDA organization (Army Support Group) to meet the logistics needs of the theater. The Army Support Group consisted of DA civilians, contractors, active duty military, and reserve component TOE organizations. The force was tailored to accomplish its mission and proved to be highly efficient and effective. Upon conclusion of ODS, the concept, organization, and doctrine for a Logistics Support Group (LSG) was formally developed by CASCOM, in conjunction with AMC, and staffed with the Army CINCs. Staffing is still ongoing. When AMC was alerted in Aug 92 to send a force to Florida as part of Joint Task Force Andrew in support of relief efforts, it selected the LSG to be its force. Again, the LSG provided an organization which could be tailored to meet the specific needs of the relief efforts. It performed superbly, demonstrating that the LSG concept is sound and provides exactly the type

of base organization a theater commander needs and can tailor to meet his logistical needs - regardless of the mission (i.e., humanitarian, combat, etc.). The base logistical support elements are present in the proposed LSG TDA to permit incremental build-up of desired/required functions. Clearly, the LSG concept has been validated as a result of its employment now in two separate contingency operations.

RECOMMENDED ACTION: That the LSG concept be approved for implementation and placed into Army doctrine.

MATERIEL

LATE ARRIVAL OF TMDE.

OBSERVATION: TMDE was not available until C+15.

DISCUSSION: TMDE teams are available and deployable at every installation that has a division size force. On this operation, units were piecemealed into the AO from a variety of installations. Consequently, no TMDE Detachment deployed with a unit. The result is especially significant to aviation units.

RECOMMENDED ACTION: That a TMDE Detachment deploy to AO where there is a division size force on the ground or air.

MILITARY POLICE.

EMPLACEMENT OF HIGHWAY SIGNS.

OBSERVATION: Highway signs were not emplaced immediately to direct delivery trucks to drop-off points.

DISCUSSION: Highways signs were not emplaced immediately after the truck intercept point was designated and established, thus causing highway congestion and delays on delivery of supplies to the needed sites. Signs were eventually installed through a priority effort by the State DOT.

LESSON LEARNED: State Department of Transportation should have as a priority task emplacement of directional signs.

RECOMMENDED ACTION: That directional signs be assigned one of the highest priorities by the state. In doing so, trucks bringing supplies to a disaster relief area can get to proper locations quickly.

OPLAN/OPORD

COMMAND GROUP COMPOSITION.

OBSERVATION: LSG Command Group Composition

DISCUSSION: The LSG Command Group, as deployed to Florida, was tailored differently than the proposed TDA. The TDA calls for a Colonel as Commander, no Deputy Commander, a GM-15 as Civilian Executive Assistant versus a Chief of Staff (Colonel) and no CSM. Clearly, for JTF Andrew, General Officer presence, rather than a Colonel, was required to effect coordination with the JTF chain of command and influence critical activities in mission accomplishment. The same is true for the DCG. As the area of operation stabilizes and matures, a Brigadier General is required to command the LSG. As operational requirements decrease, use of a Colonel commander should be considered. Use of a Colonel, as a Chief of Staff versus a GM-15 as the Civilian Executive Assistant, should be METT-T dependent based upon composition of the LSG force. The LSG did not have a CSM. A CSM/Opns SGM is required and should be part of any future force. Lastly, motor vehicle operators are required for the CG/DCG.

RECOMMENDED ACTION: Modify the TDA to assign a Major General as LSG Command; a Brigadier General as DCG; rename the Civilian Executive Assistant position to Chief of Staff (Colonel); assign a Senior NCO as CSM/Opns SGM to any future LSG effort; and include motor vehicle operators in any future LSG efforts.

ORGANIZATION

DESIGNATION OF USAMC LOGISTICS SUPPORT GROUP.

OBSERVATION: Task Organization

DISCUSSION: AMC was initially tasked to support JTF Andrew in an OPCON status via a SECARMY order on 30 Aug 92. The mission was to deploy a depot support group capable of providing depot support functions for disaster relief operations in southern Florida. The concept called for establishment of a humanitarian support depot to receive, store, and issue materiel. Upon arrival, the AMC element was designated as Task Force Arwood. On/about 2 Sep 92, Task Force Arwood was redesignated as U.S. Army Materiel Command Logistics Support Group. This series of name changes caused considerable confusion with the JTF Staff and our customers.

RECOMMENDED ACTION: For future deployments, AMC should prepare and publish a General Order officially establishing the LSG as U.S. Army Materiel Command Logistics Support Group and use it as the official C2 organization name. Humanitarian depots and TOE units (OPCON) would then be subordinate organizations to the LSG, a legitimate C2 structure. This would greatly clarify current problems.

PLANNING

LAND ACQUISITION FOR DEPOT OPERATIONS.

OBSERVATION: Land Acquisition

DISCUSSION: Upon arrival in the area of operation (A/O) USAMC-LSG Engineer was tasked to obtain land for use as depot storage sites, trailer transfer points and vehicle/materiel staging areas. Coordination was made with Jacksonville District, Corps of Engineers real estate specialists. Priorities for land were Federal, state, county and municipal. Last resort for land was donated and lease. No problems were noted.

RECOMMENDED ACTION: No change in system; worked well.

SUPPLY

CLASS IV RECEIPT AND DISTRIBUTION.

OBSERVATION: Class IV construction materials were obtained for temporary and follow-on repair missions from a variety of sources.

DISCUSSION: Some materials were contracted for by the Corps of Engineers; some were donated and others provided by Defense Logistics Agency/AMC depots. There was much confusion over what materials were ordered for what mission and rules for use of donated items. Lack of Task Force Engineer involvement in the receipt, storage and issue tasks contributed to the confusion.

RECOMMENDED ACTION: A central clearing house for Class IV must be established early in the operation with all affected parties involved in the decision process. Close coordination must occur between expected users, ordering officers and depot personnel to prevent confusion.

TASKING MESSAGES

Appendix IV

The following pages contain a message from the Secretary of the Army, released by the Director of Military Support, which tasked AMC to furnish a depot support group in support of all military, federal, and civilian organizations involved in the Hurricane Andrew relief effort.

TASKING MESSAGES

TASKING MESSAGES

TASKING MESSAGES

TASKING MESSAGES

TASKING MESSAGES

Appendix V

The following is the text of the 30 August 1992 priority message from the Secretary of the Army which formally tasked AMC to establish a Humanitarian Depot in Florida in support of the Hurricane Andrew relief operation.

1. DOD DISASTER ASSISTANCE OPERATIONS FOR THE STATE OF FLORIDA IS BEING PROVIDED THROUGH THE JOINT TASK FORCE. EXTENSIVE DOD RESOU[RC]ES ARE BEING DELIVERED FOR DISTRIBUTION TO VICTIMS OF THE HURRICANE AND IN SUPPORT OF THE JOINT TASK FORC[E].

2. MISSION: THE ARMY MATERIEL COMMAND (AMC) WILL IMMEDIATELY DEPLOY A DEPOT SUPPORT GROUP CAPABLE OF PROVIDING DEPOT SUPPORT FUNCTIONS FOR DISASTER RELIEF OPERATIONS IN SOUTHERN FLORIDA.

3. EXECUTION:

(A) CONCEPT: A HUMANITARIAN SUPPORT DEPOT WILL BE ESTABLISHED [TO] RECEIVE, STORE, AND ISSUE MATERIELS RECEIVED FROM DOD AGENCIES. IN ADDITION, IT MAY BE USED BY OTHER FEDERAL AGENCIES, AND CIVILIAN RELIEF ORGANIZATIONS AS REQUIRED.

(B) TASKING:

(1) AMC

(A) DEVELOP REQUIREMENTS FOR ESTABLISHING AND OPERATING THE HUMANITARIAN SUPPORT DEPOT IN SOUTHERN FLORIDA. PROVIDE REQUIREMENTS FOR SHORTFALLS TO THIS HQ.

(B) DEPLOY PERSONNEL AND EQUIPMENT REQUIRED TO OPERATE THE DEPOT.

(C) LIASE WITH LOGISTICS TASK FORCE 507 AND THE DEFENSE LOGISTICS AGENCY (DLA) TEAM.

(D) DETERMINE A LOCATION FOR THE DEPOT AND INFORM ALL SUPPORTED AND SUPPORTING ORGANIZATIONS AND AGENCIES.

(2) DLA PROVIDE ASSISTANCE TO AMC AS REQUIRED.

(C) COORDINATING INSTRUCTIONS:

TASKING MESSAGES

MACDILL AIR FORCE BASE HAS BEEN DESIGNATED THE BASE SUPPORT INSTALLATION.

4. COMMAND: CDR OF THE HUMANITARIAN SUPPORT DEPOT IS OPCON TO COMMANDER JOINT TASK FORCE.

APPENDIX VI

LIST OF AMC PERSONNEL DEPLOYED TO SOUTHERN FLORIDA

NAME	RANK	DATE DEPLOYED	FUNCTION
		AMCCOM	
BILDERBACK, TIMOTHY	CPT	09/03/92	
CLINE, LAWRENCE	CPT	08/30/92	TRANS
FORT, EDWARD	CPT	09/03/92	
GONZALES, OSCAR	CPT	09/03/92	
KOELLER, MICHAEL	LTC	09/05/92	ASST G4
MEIER, DUANE	CIV	09/15/92	PAO
MOOK, WALLACE C.	COL	09/03/92	ENG OFF
WRIGHT, JOHN	CPT	09/03/92	
		ATCOM	
ANZELONE, RICHARD	CPT	09/04/92	CONTRACT OFF
BARNETT, BOB	CIV	08/31/92	EQUIP SPEC
BENNET, JAMES H.	COL	08/28/92	ALAT CHIEF
BENNETT, BEAU	SGT	09/04/92	CAMERA MAN
BROWN, RAY	SGT	08/31/92	LOG SPEC
DOLLOFF, SCOTT C.	CPT	08/28/92	ACQ OFFICER
FAGLIE, LONNIE	CIV	09/01/92	LAO
HAMBLIN, DON L.	CIV	08/28/92	LOG MGMT
HUNT, ROBERT	CIV	09/04/92	PUBLIC AFF
HURST, JESSIE	SFC	09/04/92	SUPPLY
LARSON, LYNN	CIV	08/30/92	LAO
MEYERS, WILLIE	SFC	09/04/92	LOG SPEC
MILLER, MICHAEL	CIV	09/01/92	LAO
PACIENCIA, JOE P.	MSG	08/31/92	LOG SPEC
PANICO, ANTHONE	SSG	09/01/92	LOG SPEC
PRIDDY, DON E.	CW4	09/04/92	MAINT TECH
REYNOLDS, DOROTHY	CIV	09/04/92	ACQ MGMT SPEC
ROLLAND, MAURICE	CIV	09/03/92	LAO
RUCKER, WILLIAM	SFC	09/04/92	LOG SPEC
SPORRER, BRYAN	CIV	09/04/92	RESOURCE MGMT
STONICH, BERT	CIV	09/04/92	LAO
SUPPLEE, JOHN H.	MAJ	08/28/92	LAO

AMC PERSONNEL DEPLOYED TO FLORIDA

TAFOYA, BOB	CIV	09/01/92	LAO
TYNDALL, SHERWOOD	CIV	08/30/92	LAO
WASDYKE, JIM	CIV	09/01/92	LAO

CECOM

BIOLSKI, NELLO	CIV	09/23/92	LAO
BLANCHARD, DAVID	SSG	08/30/92	SATE OPER
BROWN, RONALD	MAJ	09/01/92	
DENYS, JOHN	CIV	09/01/92	LAO
FAUSTINO, ALFRED	MAJ	09/09/92	SJA
HAWKS, MICHAEL	CIV	09/01/92	LAO
JEFFERYS, JAMES	CIV	09/01/92	LAO
KORB, MATTHEW	SPC	08/30/92	SATE OPER
MARSHBURN, JAMES	CIV	09/24/92	LAO
MCDOUGLE, DEXTER	SSG	09/04/92	MOTOR TRANSPORT
OWENS, THOMAS	CIV	09/01/92	LAO
PARKER, JOBE	CIV	09/01/92	LAO
PETERSON, CRAIG	MIL	09/02/92	CE OFFICER
POSTEL, RAMON	SPC	08/30/92	SATE OPER
SCHAERTL, ERIC	CPT	08/31/92	OPS OFFICER
VAOLI, EDDIE	SFC	09/12/92	SUPPLY

DESCOM

ANDERSON, GORDON	CIV	09/02/92	WAREHOUSEMAN
BARFUSS, DWIGHT	CIV	09/02/92	WAREHOUSEMAN
BAYLESS, BILLY	CIV	09/01/92	WAREHOUSEMAN
BENDER, ROBERT	CPT	09/01/92	OPS CELL
BROWER, WILLIAM	CIV	09/02/92	WAREHOUSEMAN
BROWN, PHYLLIS	CIV	09/08/92	HAZMAT HANDLER
CASH, CHARLES	CIV	09/02/92	WAREHOUSEMAN
CONWAY, JOEL	CIV	09/13/92	STOCK CTRL
CRAZE, WILLIAM	CIV	09/27/92	DEPOT OPNS
DEMPSEY, PATRICK	MAJ	08/31/92	PROCUREM
DINGLER, RITA	CIV	09/13/92	PROCUREM SPC CIV
DOSS, REBA D.	CIV	09/02/92	STOCK CONTROL
DROOG, PIETER	MAJ	09/04/92	OPERATIONS OFF
DYER, DICK	CIV	09/03/92	PUBLIC AFFAIRS
EAVES, DIANE L.	CPT	09/04/92	CONTRACTING OFF
EVERETT, PAUL	CPL	09/03/92	ADMIN SPEC
FORAKIS, JOHN P	CIV	09/02/92	WAREHOUSEMAN

AMC PERSONNEL DEPLOYED TO FLORIDA

FORTIN, ROBERT	CIV	09/18/92	POWER SUPPORT SY
FOSTER, DEBORAH	CIV	09/02/92	STOCK CONTROL
GIBSON, MARVIN	CPT	09/01/92	ORD OFFICER
GOODWIN, RODNEY	CIV	09/02/92	WAREHOUSEMAN
GOWER, RONALD	CIV	09/01/92	STOCK CONTROL
GRANBERRY, STEVE	CIV	09/02/92	WAREHOUSEMAN
GREEN, RALPH D.	CIV	09/08/92	SUPPLY SYS ANAL
HALL, ANTHONY	SFC	09/09/92	OPNS NCO
HALL, RICHARD	LTC	09/08/92	SP AS, DC CG
HAMPTON, ANTHONY	CIV	09/02/92	WAREHOUSEMAN
HANNA, BOBBIE	CIV	09/02/92	FOREMAN
HARRELSON, HERM	CIV	08/31/92	PUBLIC AFFAIRS
HAYS, PEGGY	CIV	09/01/92	WAREHOUSEMAN
HIGGS, ALLAN	CIV	09/18/92	ELEC SYS/PWR GEN
HIXSON, JOHN	CIV	09/02/92	WAREHOUSEMAN
HORN, GERALD L.	CIV	09/02/92	WAREHOUSEMAN
HORNBUCKLE, CAR	CIV	09/04/92	TRAFFIC MGMT SP
JOHNSON, MICHAEL	SFC	09/04/92	SUPPLY
JORDAN, ROBERT	CIV	09/02/92	WAREHOUSEMAN
KIRBY, PATRICK	COL	09/05/92	TRANSITION TEAM
KRAMER, PAULA	CIV	09/13/92	CONTR SPC
LEPEK, JEFFERY	CPT	09/04/92	OPERATIONS
LINT, JAY W.	CIV	09/02/92	WAREHOUSEMAN
LOCKRIDGE, KEITH	CIV	09/08/92	INVENT CTRL
MILLER, RONALD	CIV	09/03/92	DEPOT OPERATION
MONN, SUSAN	CIV	09/01/92	STOCK CONTROL
MORGAS, RAY R.	CIV	09/02/92	WAREHOUSEMAN
MORPHEW, AUDIE	CIV	09/02/92	WAREHOUSEMAN
NEIKIRK, DANIEL	CIV	09/02/92	WAREHOUSEMAN
NORTH, DONALD R.	CIV	09/02/92	WAREHOUSEMAN
PEACOCK, ROGER	CIV	09/02/92	STOCK CONTROL
PELFREY, EDSEL	CIV	09/02/92	WAREHOUSEMAN
PHILIPS, ROBERT	CIV	09/10/92	SUPPLY CLERK
PHILLIPS, ANTHONY	CIV	09/08/92	HAZMAT
REEVES, CHARLES	CIV	08/30/92	MAT MVMT
RHODES, LONNY N.	CIV	09/02/92	WAREHOUSEMAN
ROBINSON, PAUL A.	CIV	09/02/92	WAREHOUSEMAN
ROOS, JAMES W.	CIV	09/03/92	DEPOT OPERATION
SALSMAN, MARVIN	CIV	09 10/92	TRANS SPC
SENCI, DARLENE	CIV	09/01/92	STOCK CONTROL
SEVILLE, JUDY	CIV	09/01/92	WAREHOUSEMAN
SEVILLE, MARK	CIV	09/01/92	WAREHOUSEMAN

AMC PERSONNEL DEPLOYED TO FLORIDA

SHATZER, RONALD	CIV	09/04/92	COMPUTER PROG
SHERRILL, VIRGI	CIV	09/01/92	WAREHOUSEMAN
SMITH, ANDRE	CIV	09/01/92	WAREHOUSEMAN
STAHL, TWILA	CIV	09/11/92	SAFETY OFFICE
STANLEY, LARRY	CIV	09/02/92	WAREHOUSEMAN
STOFFEL, RUTH	CIV	09/11/92	PBO
STRSCAVAGE, BERNALD	CIV	09/09/92	SAFETY OFF
SWAIN, BETTY	CIV	09/02/92	WAREHOUSEMAN
TOLAN, TIM	CIV	09/02/92	COMPUTER SPECIAL
TOOLAN, KEVIN	CIV	10/02/92	PUB AFFAIRS
TRUAX, STEPHEN	CIV	09/01/92	WAREHOUSEMAN
WIREMAN, RANDLE	CIV	09/02/92	WAREHOUSEMAN

HQ AMC

AGOGINO, MICHAEL	MAJ	09/12/92	TRANSITION TEAM
ALDRICH, CLIFTON H.	COL	09/02/92	MI
APONTE, REY	CIV	09/23/92	MEDIA RELATIONS
ARWOOD, THOMAS	MG	08/29/92	TF CMDR
BRAVEMAN, CLIFFORD	CIV	09/08/92	PAO
BRIGGS, JOSEPH	COL	08/31/92	ENGINEER
BRYANT, TOM	COL	09/15/92	TRANSITION TEAM
DARIUS, ROBERT	CIV	09/07/92	HISTORIAN
DUNN, NANCY	CIV	08/30/92	PAO
DURR, WINZOIR V.	CIV	09/03/92	COMPUTER SPECIAL
GAJDA, THOMAS	CIV	09/12/92	DCSRM REP
GREEN, DALE	CIV	09/12/92	TRANSITION TEAM
HARTZELL, DONALD	CIV	09/16/92	PROPERTY ACCTG
KEATING, WILLIAM	LTC	09/09/92	TF XO
KIEFER, MICHAEL	CIV	09/26/92	BUDGET ANAL
MANNING, BENJAMIN	LTC	09/12/92	CHAPLAIN
MEDSGER, WILLIAM	MAJ	09/12/92	SJA
NORRIS, JIMMIE	CPT		PROTOCOL
PEYTON, ROBERT	CIV	09/02/92	AUTOMATION SPECI
PINSON, HUBBARD	SGM	08/30/92	OPS NCO
ROBERTS, MADONNA	CPT	08/31/92	
ROUSE, JOHN M.	SGT	09/02/92	SUPPLY
TRUSSELL, CYNTHIA	CIV	08/30/92	ADMIN
WAGNER, ROBERT A.	CPT	09/02/92	
WILLIS, ARTHUR	CIV	08/30/92	GRAPHIC SPC
WILSON, DONALD	SSG	08/31/92	DRIVER

AMC PERSONNEL DEPLOYED TO FLORIDA

MICOM

CARREON, ADALBERTO	MAJ	09/01/92	AVIATOR
COUCH, SHARON L.	CIV	09/13/92	ADMIN
DETHLEFS, LOREN	CW4	09/15/92	PILOT
ELEDUI, WILLIAM B.	MAJ	09/01/92	APM PROGRAM MANA
HAAS, LESLIE	CIV	09/29/92	PILOT
HAAS, LESLIE J.	CIV	09/02/92	PILOT
HITT, DAVID A.	SSG	09/29/92	CREW CHIEF
KELSHEIMER,TIMOTHY	SGT	09/02/92	CREW CHIEF
MCMULLEN, MICHAEL	CW3	09/02/92	PILOT
SANDERS, KENNETH	SSG	09/15/92	CREW CHIEF
WISENER, LARUE	CIV	09/15/92	PILOT

SIMA

HORNBUCKLE, CAVVAL	CIV	09/08/92	TRAFFIC MGMT/PRO
SHATSER, DONALD	CIV	09/08/92	PROGRAMMER

TACOM

DATES, CLARK	SGT	08/31/92	DRIVER FOR DCG
GEE, HOMER	CIV	08/31/92	LAO
GREENE, WARREN,	CPT	09/05/92	MAT MGT
MONROE, JAMES W.	BG	08/30/92	DEP CG SYS & LOG
STONE, CHARLES	MAJ	09/04/92	MAT MGT
TANGIERS, CHARLIE	CPT		
WALDON, JEFF	CIV	08/31/92	LAO
YOUNG, CAROL	CPT	09/04/92	MAT MGT

TECOM

ANDREWS, ROBERT	LTC	09/02/92	G1
MILLARD, MICHAEL K.	LTC	09/30/92	SJA
WARREN, DONALD D.	SSG	09/04/92	TRUCK MASTER

TMDE

BENN, JAMES	SGT	08/30/92	ADMIN
CASPAR, GEORGE	SFC	09/07/92	TMDE SUPPORT TEA
DOUCETTE, ANDREW	SGT	09/08/92	TMDE SUPPORT TEA
JORDAN, DONNA D.	CW3	09/07/92	TMDE SUPPORT TEA

AMC PERSONNEL DEPLOYED TO FLORIDA

KEMPER, ROBERT	SGT	09/08/92	TMDE SUPPORT TEA
MCCARTNEY, JOSE	SSG	09/08/92	TMDE SUPPORT TEA
PRICE, WILLIAM	SFC	09/08/92	TMDE SUPPORT TEA
SKRINE, HENRY	SFC	09/08/92	TMDE SUPPORT TEA
WALLACE, JEFFREY	SGT	09/08/92	TMDE SUPPORT TEA

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