

THE US AIR FORCE RESPONSE TO HURRICANE KATRINA

Dr. Daniel L. Haulman

17 November 2006

Media images of destitute flood victims in New Orleans in the wake of Hurricane Katrina generated the impression of an unresponsive federal government. Critics understandably took aim at the mayor, the Louisiana governor, the Federal Emergency Management Agency, and the President. Some also criticized the Department of Defense as if it had failed to furnish the quick and massive humanitarian relief which the American people had come to expect after a natural disaster. After all, Pentagon resources were stretched thin because of ongoing combat operations in Iraq and Afghanistan on the other side of the world. This paper will explore the validity of that impression by focusing on the response of the U.S. Air Force, as part of the larger Department of Defense, to the crisis posed by Hurricane Katrina.¹

The Air Force was involved even before the storm hit. During late August, 2005, the Hurricane Hunters of the 53d Weather Reconnaissance Squadron (403d Wing) in their WC-130 airplanes tracked and measured Katrina's intensity and location as it crossed the tip of Florida and grew into a category 5 monster in the Gulf of Mexico. Between August 23 and 29, squadron aircrews flew more than 109 hours tracking the storm. As Katrina approached the central Gulf coast, the squadron dispersed its aircraft, which were based at Keesler Air Force Base, Mississippi, to other bases beyond the projected storm path.²

Hurricane Katrina hit southeast Louisiana early on the morning of Monday, August 29, with winds as high as 140 miles per hour. After making landfall near Buras,

it followed a northward track to the Louisiana-Mississippi border. East of there, the counterclockwise winds pushed a 28-foot storm surge from the Gulf of Mexico northward into the towns of coastal Mississippi and southwestern Alabama. A combination of wind, rain, and storm surge destroyed countless buildings, leaving a scoured landscape, but the floodwaters there receded almost as rapidly as they had come. West of the storm center, the winds blew from north to south, pushing a swollen Lake Pontchartrain into the canals of New Orleans. Failures of floodwalls along those canals and overtopping of levees in the east left 80% of the city flooded for weeks. Of some 485,000 residents, approximately 100,000 who had not evacuated awaited rescue as they struggled to survive without adequate food, water, shelter, plumbing, electricity, and communications. All the parishes east and south of New Orleans were also flooded. Hurricane Katrina eventually caused 1,304 deaths and some \$50 billion in destruction and damage.³

President George W. Bush was slow in responding to the emergency. On August 31, the second day after Katrina, he finally cut short his Texas vacation and returned to Washington for the crisis. His aircraft, Air Force One, flew low over the coastal disaster area so that the President could see some of the destruction for himself. That same day, Louisiana Governor Kathleen Blanco asked for 40,000 federal troops.⁴

Once the governors of the affected states requested federal assistance, the Federal Emergency Management Agency (FEMA), tapped the Department of Defense for military assistance. The same day, the U.S. Northern Command set up Joint Task Force Katrina under Lt. Gen. Russell L. Honoré, the commander of the First U.S. Army, at Camp Shelby, Mississippi. Maj. Gen. M. Scott Mayes, commander of the USAF First

Air Force, served as the task force's joint forces air component commander (JFACC). General Mayes established the 1st Aerospace Expeditionary Task Force-Katrina at Tyndall Air Force Base, Florida. The task force set up various air expeditionary groups for a massive disaster relief operation. For example, the 97th Air Expeditionary Group was activated at Keesler. By September 7, the Air Force, Air Force Reserve, and the Air National Guard had deployed some 8,000 personnel for the emergency.⁵

USAF helicopters took part early in the disaster relief effort. Their role was most important in the New Orleans area, where only helicopters were allowed to fly below 20,000 feet. Late on August 30, the Air Force Reserve Command's 920th Rescue Wing at Patrick Air Force Base (AFB), Florida flew large HH-60 Pave Hawk helicopters to Jackson, Mississippi in order to fly FEMA damage assessment teams to the disaster zone. They and other HH-60s from wing's 943d Rescue Group from Davis Monthan AFB, Arizona, soon began flying search and rescue missions over the disaster zone. Such missions commenced on August 31. HC-130 tankers staging at Patrick AFB refueled the helicopters.⁶

At the same time, other HH-60s and HC-130s from the Air Force Special Operations Command's 347th Rescue Wing from Moody Air Force Base, Georgia and 563d Rescue Group from Davis-Monthan AFB, Arizona, performed similar search and rescue missions in the disaster area. The Pavehawk helicopters flew their missions from Jackson, Mississippi, refueled by HC-130s. MH-53 helicopters refueled by MC-130 tankers from the 16th Special Operations Wing, home based at Hurlburt Field in Florida, also took part in the search and rescue operations in the disaster zone. Like the Air Force Reserve helicopter assets, they served under the 347th Expeditionary Rescue Group under

Task Force Katrina. The Air National Guard's 106th Rescue Wing also took part in the helicopter search and rescue operations.⁷

Air Force Space Command deployed eight UH-1 helicopters, two each from Minot AFB, North Dakota; F.E. Warren AFB, Wyoming; Malmstrom AFB, Montana; and Vandenberg AFB, California, for Hurricane Katrina search and rescue missions. Smaller than the MH-53s or the HH-60s, the UH-1s were in some ways more versatile. They came from the Air Force Space Command's 37th, 40th, 54th, and 76th Helicopter Flights. From Columbus AFB, Mississippi, they carried food, water, medicine, and other supplies to hurricane victims along the Mississippi Gulf Coast. The UH-1s served in the 620th Air Expeditionary Squadron of the 347th Expeditionary Rescue Group. Two other UH-1s took part in relief efforts, one from the Air Force Materiel Command and one from Air Force Special Operations Command.⁸

Between August 31 and September 10, USAF helicopter crews rescued 4322 people, 2836 of them by HH-60s, 1461 by MH-53s, and 25 by UH-1s. On September 4, the 347th Expeditionary Rescue Group rescued a record 791 persons in one day. Some missions lasted up to 11 hours at a time. The helicopters at first concentrated on search and rescue missions, hoisting victims stranded on roofs in flooded areas of New Orleans to dry ground, but later they carried refugees from shelters within New Orleans, such as the Superdome and Convention Center, to the New Orleans (Louis Armstrong) International Airport, where there were medical treatment personnel, equipment and supplies, and where air and surface transportation resources were being concentrated for evacuation to designated shelter areas beyond the disaster region.⁹

Besides helicopters, USAF fixed wing aircraft, including C-130s, C-17s, and C-5s, flew crucial airlift missions to transport both people and equipment and supplies. The Eighteenth Air Force's Tanker Airlift Control Center (Air Mobility Command) coordinated airlift flights. Col. Jeff Franklin served as lead controller for Katrina mission taskings. Many of the same aircraft that flew equipment, supplies, and emergency personnel into the disaster area also flew medical patients and displaced persons out.¹⁰

The Air Force air-evacuated a total of 2,602 medical patients from the Hurricane Katrina disaster area to medical facilities across the United States between the end of August and mid-September. The biggest day was September 4, when Air Force transports evacuated some 1,500 patients from the New Orleans International Airport in 24 hours. Many of the medical evacuees flew to San Antonio or Houston, Texas. For example, a C-5 of the 433 Airlift wing shuttled more than 1,200 patients from New Orleans to San Antonio. Two C-130s of the 139th Airlift Wing flew 31 children and their families from the New Orleans Children's Hospital to Mercy Children's Hospital in Kansas City. As early as August 30, a C-17 and a C-130 landed at Keesler to evacuate hospital patients and pregnant women to Lackland Air Force Base's Wilford Hall Medical Center in Texas.¹¹

Not only patients, but those made homeless by Hurricane Katrina, needed airlift from the disaster area. The Air Force airlifted 26,943 displaced persons from New Orleans to temporary or new homes in more than 35 states across the country. In 55 hours, 89 aircraft moved almost 10,000 refugees from New Orleans to Kelly Field, San Antonio, Texas, where Lackland Air Force Base personnel had set up temporary shelters. C-17s that had delivered emergency personnel and equipment to New Orleans, instead of

returning to their home bases empty, carried refugees from New Orleans to Dobbins Air Force Base, Georgia, as well as San Antonio, Texas. Other C-17s of the 97th Air Mobility Wing, after having delivered generators to Keesler, airlifted 437 USAF technical students from Biloxi, Mississippi, to Sheppard Air Force Base, Texas. A total of 1,100 USAF technical students were moved from Keesler to other Air Education and Training Command facilities.¹²

Besides airlifting displaced persons and patients from the disaster area to other parts of the country for housing and medical treatment, the Air Force also transported large numbers of emergency personnel to the New Orleans and surrounding areas, including medical and communications personnel, engineers, and armed troops. USAF aircraft moved 30,412 Air National Guard passengers and 5,414 Air Force Reservists, and a total of 43,713 Joint Task Force support personnel.¹³

Many of the airlifted emergency personnel came to restore infrastructure. As early as August 30, two C-5s from the 60th Air Mobility Wing at Travis Air Force Base in California airlifted tanker airlift control elements and search and rescue teams to the disaster area. A C-17 from the 305 Air Mobility Wing from McGuire AFB, NJ airlifted contingency support groups to New Orleans International Airport. Between August 31 and September 3, 2005, other C-17s airlifted emergency response personnel and equipment from New Jersey and Michigan to New Orleans. C-5 transported 615 Contingency Response Wing from Travis AFB, CA, to Lafayette, LA as advance team to receive aircraft and cargo. On August 31, the 621 Contingency Response Wing's 818 Contingency Response Group deployed from McGuire AFB, NJ to New Orleans International Airport with combat controllers and medical teams to establish bare base

operations there. An AFSOC MC-130 took a team of combat controllers and a medical team to New Orleans International Airport on the same day. The 822d Contingency Response Group also deployed there. Meanwhile, the 615 Contingency Response Wing's 571st Contingency Response Group deployed from Travis AFB, CA, to Keesler for bare base operations in the Biloxi area of Mississippi. A C-5 moved equipment for fire and rescue personnel to New Orleans International Airport.¹⁴

The 49 Materiel Maintenance Group, the only USAF Base Expeditionary Airfield Resources (BEAR) group, deployed personnel and equipment to New Orleans and Biloxi. On 4 Sep, four C-5s each carried a BEAR Base set and more than 550 personnel from Holloman AFB, New Mexico to New Orleans International Airport. On 5 Sep, the 4th Air Expeditionary Group under Col Leonard Coleman, bedded down at a tent city there.¹⁵

On September 2, 2005, a 60-member contingency aeromedical staging facility team from Lackland AFB deployed to New Orleans, where it set up a 24-hour tent facility to care for patients. 25-bed facility ready next day, manned by 182 medical personnel. The 932d Airlift Wing moved medical teams by C-9 to the medical staging area in New Orleans, where 80 doctors, nurses, and medical technicians of the 375th Medical Group served admirably. A mobile aeromedical staging facility from Lackland Air Force Base in Texas operated in an airport concourse at New Orleans to treat patients awaiting evacuation.¹⁶

Absence of adequate communications in the wake of Hurricane Katrina required the importation of equipment and expert personnel to operate it. The 139 Airlift Wing flew military communications personnel from Colorado to Gulfport, Mississippi, while the 5th Combat Communications Group deployed resources from Robins AFB, GA, to

nearby Keesler AFB. At request of US Senator “Kit” Bond, 139 Airlift Wing (Missouri ANG) flew members of National Guard Communications Element from Buckley ANG Station in Colorado to Gulfport.¹⁷

On September 2, President Bush returned to the disaster area he had flown over two days earlier in Air Force One, a VC-25 from the 89th Airlift Wing. He landed at Louis Armstrong International Airport in New Orleans, where he met with the Louisiana governor and the mayor of New Orleans about control of the Louisiana National Guard and federal troops already active in the area. The same day he also landed at Keesler to meet with state and local officials in coastal Mississippi.¹⁸

The first week in September exposed a growing breakdown of law and order in New Orleans. Thousands of refugees, lacking adequate food, drink, plumbing, air conditioning, and space, crowded at the Superdome and the convention center, where violence threatened to erupt. Desperate people broke into grocery and drug stores in search of necessities, while others looted clothing and electronics stores for items to sell or barter. During the first nine days of September, hosts of USAF C-130s and Air National Guard KC-135s airlifted U.S. Army and Army National Guard troops from various parts of the country to New Orleans during the first nine days of September. Between Sep 3 and 8, thirty-three C-17 missions airlifted troops of the 82d Airborne Division from Fort Bragg, NC, to New Orleans. C-5s, the largest airplanes in the Air Force, also airlifted division troops to the city.¹⁹

The Air Force airlifted not only emergency personnel into the disaster area, but also some 11,450 tons of equipment, supplies, and vehicles. For example, between September 8 and 11, four C-17s and two C-5s carried large water pumps from Ramstein

Air Base in Germany to New Orleans to expel flood waters from the city. Other C-5s imported vehicles and relief cargo from New York and New Jersey to New Orleans and Gulfport between September 5 and 8. On August 31, C-17s from the 97th Air Mobility Wing of Altus Air Force Base, Oklahoma, transported 200-watt generators to Keesler. On September 7, one week later, a C-17 delivered more FEMA generators to New Orleans. C-17s delivered engineering equipment and supplies from other USAF bases to Keesler. Food was one of the most important of airlifted emergency supplies. Between 1 and 9 September, the 155th and 185th Air Refueling Wings of the Air National Guard delivered 66,000 Meals, Ready to Eat, or MREs, from Nebraska to New Orleans, using KC-135 tankers as transports. On September 4, C-5s transported huge quantities of MREs from Norfolk, Virginia, to Gulfport. To Keesler Air Force Base in coastal Mississippi went 182,640 meals ready-to-eat, 243,507 gallons of water, and 92 tons of supplies. On Sept 6, a C-5 airlifted 27,300 British MREs from RAF Mildenhall, UK, to Little Rock AFB, Arkansas, the base designated for delivery of foreign relief supplies.²⁰

Insects, breeding profusely in the floodwaters, posed a disease threat to New Orleans and its vicinity. Between Sept 12 and 20, two C-130s of the 910 Airlift Wing from Ohio sprayed insecticide over disaster area, staging out of Duke Field, Florida. On 44 aerial spray sorties, they treated more than 2.8 million acres, using 13,775 gallons of insecticide. They served under the 153d Air Expeditionary Group.²¹

Specialized Air Force aircraft performed other crucial missions. E-3 AWACS aircraft and crews from 552d Air Control Wing (960 Air Control Squadron) provided air traffic control for more than 1,000 helicopters between September 3 and 19, flying eleven sorties. The 99th Reconnaissance Squadron from Beale Air Force Base in California flew

U-2s over the disaster area for aerial photography and imagery, while the 45th Reconnaissance Squadron from Offutt Air Force Base in Nebraska flew OC-135s for the same purpose. The Air Force flew 361 intelligence, surveillance, and reconnaissance sorties during the Hurricane Katrina operation. Just in case they were needed to fight fires from the air, two 145th Airlift Wing C-130s equipped with the Modular Airborne Fire Fighting System deployed from North Carolina to Pensacola for possible use against fires that had broken out in New Orleans.²²

Statistics prove the quantitative significance of the Air Force role in Hurricane Katrina relief operations. USAF helicopters flew 648 sorties, 599 of these on search and rescue missions that rescued 4322 people. Air Force fixed-wing aircraft flew 4,095 sorties, 3,398 of these on air mobility missions. USAF aircraft evacuated 26,943 displaced persons from New Orleans and surrounding areas to airports and bases outside of the disaster area. The Air Force air-evacuated more than 2,600 medical patients to medical facilities across the country. USAF medical teams at the New Orleans International Airport treated 16,714 patients, including more than 5,500 in two days. The Air Force airlifted 11,450 tons of relief cargo from various parts of the country to the disaster zone. Transports carried thousands of emergency personnel, including engineers, electricians, doctors, nurses, cooks, and troops from all over the country to New Orleans and southern Mississippi. Among the Air Force aircraft involved were 49 C-130s, 31 KC-135s, 25 HH-60s, 16 C-5s, 15 C-17s, 31 KC-135s, 9 UH-1s, and 5 MH-53s, as well as HC-130s, MC-130s, WC-130s, U-2s, and OC-135s.²³

The immense contribution of the Air Force in Hurricane Katrina disaster relief was only a fraction of the total Defense Department effort, which involved elements of

the National Guard, the Army, Navy, and the Marine Corps. Although not technically part of the Defense Department, the Coast Guard also played a major role. The Pentagon flew 12,786 helicopter sorties, rescued 15,000 citizens, and transported 80,000 people in one of the largest mass evacuations in history. From nine regional military bases, the Defense Department distributed huge quantities of equipment and supplies, including more than 30 million meals. The Pentagon's response to Hurricane Katrina was the largest deployment of military forces for a civil-support mission in U.S. history.²⁴

DR. DANIEL L. HAULMAN
Chief, Organizational Histories Branch
Air Force Historical Research Agency

NOTES

¹ Amanda Ripley, "How Did This Happen," *Time*, vol. 166, no. 11 (Sept 12, 2005), 54-59; "The Lost City," *Newsweek*, vol. CXLVI, no. 11 (Sept 12, 2005), 43-52; Douglas Brinkley, *The Great Deluge* (New York: HarperCollins, 2006), 633.

² "Hurricane Hunters Rebound, Gear Up for Next Storm," *Air Force Link*, 2 Sep 2005; Lt Col Bob Thompson, "Rebuilding of Hurricane Hunter's Home Begins," *Air Force Print News*, 23 Sep 2005, story ID=123011890; "Hurricane Katrina and Hurricane Rita, By the Numbers," Report of First Air and Space Expeditionary Task Force/Joint Force Air Component Commander, Maj Gen M. Scott Mayes, USAF, p. 3; "Last WC-130H Departs Keesler," *Air Force Link*, 18 Jan 2006, story ID=123014553; Douglas Brinkley, *The Great Deluge* (New York: HarperCollins, 2006), 72.

³ *Hurricane Katrina: The Storm That Changed America* (New York: Time, Inc., 2005); *CNN Reports: Katrina: State of Emergency* (Kansas City: Andrews McMeel, 2005); *Hurricane Katrina: The One We Feared* (Harahan, LA: Express Publishing, 2005); Brinkley, *Deluge*, 627-629.

⁴ Brinkley, *Deluge*, 633.

⁵ Donna Miles, "Military Providing Full-Scale Response to Hurricane Relief Effort," *Air Force Print News*, 31 Aug 2005, storyID=123011498; "1st AF Provides Command, Control for Katrina Relief Efforts," *Air Force Print News*, 6 Sep 2005, storyID=123011640; "97 AEG Stands Up at Keesler," *Air Force Link*, 12 Sep 2005.

⁶ "Air Force Reserve Flies Missions to Storm-Ravaged Areas," *Air Force Print News*, 31 Aug 2005, story ID=123011510.

⁷ Louis A. Arana-Barradas, "Helicopter Mission Changes as Rescue Tempo Slows," *Air Force Print News*, 7 Sep 2005, storyID=123011674; Director of Mobility Forces After Action Report, Joint Task Forces Katrina and Rita, 18 Oct 2005, Appendix C; "Rescue Wing Featured on Outdoor Network," *Air Force Link*, 16 Feb 2006, story ID=123016394; "347 Rescue Wing Supports Hurricane Relief Efforts," 347 Rescue Wing Public Affairs News Release no. 090105 issued 1 Sep 2005; 347th Expeditionary Rescue Group, "Joint Task Force-Katrina: Lessons Learned," 22 Sep 2005, issued by 347 RQW/CC; JTF Katrina ANG Chronology, 25 Aug-7 Sep 2005..

⁸ Director of Mobility Forces After Action Report, Joint Task Forces Katrina and Rita, 18 Oct 2005, Appendix C.

⁹ MSgt. Mitch Gettle, "Geren Lauds Total AF Katrina Effort," *Air Force Print News*, 7 Sep 2005, story ID=123011671; Louis A. Arana-Barradas, "Helicopter Mission Changes as Rescue Tempo Slows," *Air Force Print News*, 7 Aug 2005, storyID=123011674; "Air Force Rescues Top 4,000 Mark," *Air Force Link*, 8 Sep 2005; 347 Expeditionary Rescue Group, "Joint Task Force-Katrina: Lessons Learned," 22 Sep 2005, issued by 347 RQW/CC, p. 5.

¹⁰ MSgt Paul Fazzini, "AMC Answering Humanitarian Call in Aftermath of Katrina," *Air Force Print News*, 31 Aug 2005, story ID=123011497; Director of Mobility Forces After Action Report for JTF Katrina and JTF Rita, 18 Oct 2005, 8.

¹¹ "AMC Focusing on Katrina Aeromedical Evacuations," *Air Force Link*, 1 Sep 2005; "Airmen Evacuate Veterans," *Air Force Link*, 1 Sep 2005; "Hurricane Katrina Patients Evacuated to Wilford Hall," *Air Force Link*, 31 Aug 2005; "Joint Task Force Katrina Photographic Chronology," First Air Force History Office; "Reservists Charge Into Aeromedical Evacuation Effort," *Air Force Link*, 8 Sep 2005; "Aeromedical Evacuation Hub Established at Lackland," *Air Force Link*, 3 Sep 2005; "Aeromedical Evacuation Hub Established at Kelly Field, Texas," *Air Force Link*, 2 Sep 2005; "139th Airlift Wing Completes Humanitarian Mission," *Air Force Link*, 1 Sep 2005.

¹² Tim Barela, "Come Hell and High Water," *Torch*, (Sep-Oct 2005) 8-10; "Joint Task Force Katrina Photographic Chronology," First Air Force History Office.

¹³ "Air Force Support to Hurricane Katrina/Rita Relief Operations: By the Numbers," Aug-Sep 2005, p. 21.

¹⁴ "Joint Task Force Katrina Photographic Chronology," First Air Force History Office; "AMC Response Groups Establish Airfield Operations for Hurricane Relief," *Air Force Link*, 2 Sep 2005.

¹⁵ "Air Force BEAR Base Deploys Supporting JTF-Katrina," *Air Force Link*, 4 and 6 Sep 2005.

¹⁶ "Air Combat Command Airmen Provide Humanitarian Relief," *Air Force Link*, 3 Sep 2005; "Air Combat Command Supporting Hurricane Katrina Relief Efforts," *Air Force Link*, 2 Sep 2005; "80-Member Expeditionary Medical Support Team Deploys to New Orleans," *Air Force Link*, 1 Sep 2005.

¹⁷ "Communication Units Deploy to Support Hurricane Relief," *Air Force Link*, 7 and 9 Sep 2005; "Airmen Provide Communications Capabilities," *Air Force Link*, 3 Sep 2005.

¹⁸ Matthew Cooper, "Dipping His Toe Into Disaster," *Time*, vol. 166, no. 11 (Sept 12, 2005) 51.

¹⁹ "Airmen, Soldiers Provide Hurricane Support," *Air Force Link*, 9 Sep 2005.

²⁰ "Air Force Reserve Flies Missions to Storm-Ravaged Areas," *Air Force Print News*, 31 Aug 2005, story ID=123011510; "Little Rock AFB Hub for International Katrina Aid," *Air Force Print News*, 7 Sep 2005, story ID=123011664; "Joint Task Force Katrina Photographic Chronology," First Air Force History Office; "AMC Aircraft, People Continue Hurricane Relief Efforts," *Air Force Link*, 7 Sep 2005.

²¹ "Reservists Reducing Hurricane-Borne Insects," *Air Force Link*, 29 Sep 2005, story ID=123011664; "Reserve Conducts Aerial Spray Mission Over Louisiana," *Air Force Link*, 13 Sep 2005.

²² "960 AACS Aerospace Expeditionary Force (AEF) Summary," Memorandum for 552 Operations Group Commander, 6 Feb 2006, from Lt Col Gregory D. Roberts, USAF, 960 AACS/CC; "Joint Task Force Katrina Photographic Chronology," First Air Force History Office; e-mail from Paul McAllister of ACC/HO to Daniel Haulman of AFHRA/RSO dated 24 Jan 2006, subject: "Hurricane Katrina Relief Operations,"; "U-2 Aids in Katrina Relief," *Air Force Link*, 13 Sep 2005; "Observation Aircraft to Deliver Pictures of the Gulf Coast," *Air Force Link*, 1 Sep 2005; "From the Air Force, A Swift and Overwhelming Response," *Air Force Magazine*, vol. 88 no. 10 (Oct 2005), 28.

²³ "Air Force Support to Hurricane Katrina/Rita Relief Operations; By the Numbers," Aug-Sep 2005, from Office of Air Force Lessons Learned (USAF/A9L), Washington, DC; "Air Force Support to Hurricane Katrina/Rita Relief Operations; Katrina/Rita Successes and Challenges," Aug-Sep 2005, from Office of Air Force Lessons Learned (USAF/A9L), Washington, DC; "Hurricane Katrina and Hurricane Rita, By the Numbers," First Air and Space Expeditionary Task Force (1 AETF)/Joint Air Force Air Component Commander (JFACC) report of M. Scott Mayes, Major General, USAF, Commander; "Lifted to Safety," *Airmen*, vol. XLIX, no. 7 (Fall 2005) 18.

²⁴ Sgt. Sara Wood, "DoD Leaders Report on Hurricane Response," *American Forces Information Service News Articles*, 10 Nov 2005 (http://www.defenselink.mil/news/Nov2005/20051110_3310.html). Director of Mobility Forces After Action Report, Joint Task Forces Katrina and Rita, 18 Oct 2005, Appendix B: Mobility Metrics Overview.