

THE U.S. AIR FORCE RESPONSE



SE TO HURRICANE KATRINA



Daniel L. Haulman

A U.S. Air Force Reserve C-130 Hercules from the 910th Airlift Wing at Youngstown Air Reserve Station, Ohio, sprays Dibrom, a pesticide approved by the U.S. Environmental Protection Agency, over the city Sept. 13, 2005.

**THE 1ST
AEROSPACE
EXPEDI-
TIONARY
TASK FORCE-
KATRINA...
SET UP
VARIOUS AIR
EXPEDI-
TIONARY
GROUPS FOR
A MASSIVE
DISASTER
RELIEF
OPERATION**

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. Some suspected that Pentagon resources were stretched thin for an adequate response 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 stationed at Keesler Air Force Base, Mississippi, to bases beyond the projected storm path.²

Early on Monday morning August 29, Hurricane Katrina hit southeast Louisiana with winds up to 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 percent 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 waited for Louisiana governor Kathleen Blanco's request for federal assistance before committing the defense forces already prepared. That request was delayed, in part because initial news reports prematurely declared that New Orleans had "dodged the bullet" and escaped another big hurricane. The broken levees and resultant flooding did not become apparent until after the storm had passed. On August 31, Governor Blanco asked for federal intervention. That same day, the President cut short his Texas vacation and returned to Washington. Aboard Air Force One, the President flew low over the coastal disaster area so that he could see the destruction for himself.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. Honore, the commander of the First U.S. Army, at Camp Shelby, Mississippi. Maj. Gen. M. Scott Mayes, commander of the 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 from Patrick AFB, Florida flew large HH-60 Pave Hawk helicopters to Jackson, Mississippi in order to deliver FEMA damage assessment teams to the disaster zone. On August 31, they and other HH-60s from wing's 943d Rescue Group from Davis-Monthan AFB, Arizona, began flying search and rescue missions. HC-130 tankers, staging at Patrick AFB, Florida, 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 AFB, Georgia and 563d Rescue Group from Davis-Monthan AFB,

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The pararescueman is from 38th Rescue Squadron at Moody Air Force Base, Ga., and was deployed to New Orleans for Hurricane Katrina search-and-rescue operations.



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Arizona, performed similar search and rescue missions in the disaster area. The Pavhawk 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 4,322 people, 2,836 of them by HH-60s, 1,461 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

By mid-September, the Air Force had air-evacuated a total of 2,602 medical patients from the Hurricane Katrina disaster area to medical facilities across the United States. The busiest 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

Several Air Force Space Command UH-1N Huey helicopters and crews deployed in support of Joint Task Force-Katrina. Crews, as part of the 620th Air Expeditionary Squadron, provided search, recovery and relief for displaced persons.



USAF AIR-CRAFT MOVED 30,412 AIR NATIONAL GUARD PASSENGERS AND 5,414 AIR FORCE RESERVISTS, AND A TOTAL OF 43,713 JOINT TASK FORCE SUPPORT PERSONNEL

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 AFB, 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 AFB, 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 AFB, California, delivered 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, New Jersey, airlifted contingency support groups to New Orleans International Airport. Between August 31 and September 3, other C-17s airlifted emergency

response personnel and equipment from New Jersey and Michigan to New Orleans. C-5 transported the 615th Contingency Response Wing from Travis AFB, California, to Lafayette, Louisiana, as advance team to receive aircraft and cargo. On August 31, the 621st Contingency Response Wing's 818th Contingency Response Group deployed from McGuire AFB 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 615th Contingency Response Wing's 571st Contingency Response Group deployed from Travis AFB 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 49th Materiel Maintenance Group, the only USAF Base Expeditionary Airfield Resources (BEAR) group, deployed personnel and equipment to New Orleans and Biloxi. On September 4, 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 September 5, the 4th Air Expeditionary Group under Col. Leonard Coleman bedded down at a tent city there.¹⁵

On September 2, a 60-member contingency aeromedical staging facility team from Lackland AFB deployed to New Orleans, where it set up a 25-bed tent facility manned by 182 medical personnel to care for patients. The 932d Airlift Wing moved medical teams by C-9 to the medical staging area in New Orleans, where 80 doctors, nurses,

An Air Force Reserve Command WC-130 Hercules sits on the runway at Dobbins Air Reserve Base. The Hurricane Hunters from the 53d Weather Reconnaissance Squadron evacuated their home at Keesler Air Force Base, Miss., before Hurricane Katrina slammed the Gulf Coast.



THE AIR FORCE AIR-LIFTED... SOME 11,450 TONS OF EQUIPMENT, SUPPLIES, AND VEHICLES

and medical technicians of the 375th Medical Group served. A mobile aeromedical staging facility from Lackland AFB 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 139th Airlift Wing flew military communications personnel from Colorado to Gulfport, Mississippi, while the 5th Combat Communications Group deployed resources from Robins AFB to nearby Keesler AFB. At the request of U.S. Senator “Kit” Bond, the 139th 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, flying aboard a VC-25 from the 89th Airlift Wing, returned to the disaster area he had flown over two days earlier in Air Force One. 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 elec-

tronics 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. Between September 3 and 8, thirty-three C-17 missions airlifted troops of the 82d Airborne Division from Fort Bragg, North Carolina, 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 AFB, Oklahoma, transported 200-watt generators to Keesler. On September 7, 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 September 1 and 9, the 155th and 185th Air Refueling Wings of the Air National Guard delivered 66,000 Meals, Ready to Eat (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

An R-11 jet fuel truck drives through the flooded streets of New Orleans to its operating location. A fuels team from Barksdale Air Force Base, La., deployed to New Orleans to assist with refueling operations in the city, to include refueling generators and stranded vehicles.



SPECIALIZED AIR FORCE AIRCRAFT PERFORMED OTHER CRUCIAL MISSIONS

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 September 12 and 20, two C-130s of the 910th Airlift Wing, Ohio, sprayed insecticide over disaster area, staging out of Duke Field, Florida. Flying 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 AFB, California, flew U-2s over the disaster area for aerial photography and imagery, while the 45th Reconnaissance Squadron from Offutt AFB, Nebraska, flew OC-135s for the same purpose. The Air Force flew 361 intelligence, surveillance, and reconnaissance sorties during the Hurricane Katrina operation. 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

The Civil Air Patrol (CAP) also responded to the crisis, in league with Defense Department elements. CAP Personnel from seventeen states flew 68 aircraft on hundreds of sorties over southeastern Louisiana and southern Mississippi to survey the damage and help determine the need for rescues and relief. They also used 71 ground vehicles. By September 19, they had surveyed 4,266 houses.²³

Statistics support the quantitative significance of the Air Force (including the Air Force Reserve

and Air National Guard) role in Hurricane Katrina relief operations. USAF helicopters flew 648 sorties, 599 of these on search and rescue missions that rescued 4,322 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.²⁴

The immense contribution of the Air Force in Hurricane Katrina disaster relief represents 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 part of the Defense Department, the Coast Guard also played a major role. The Defense Department flew 12,786 helicopter sorties, rescuing 15,000 and transporting 80,000 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. ■

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