

Operation Dragon Comeback

Air Education and Training Command's Response to Hurricane Katrina

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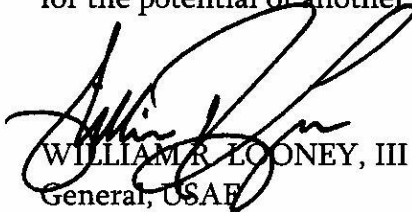
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Foreword

Hurricane Katrina was certainly one of the most destructive incidents you could ever have to go through. Having said that, it made the men and women of AETC stronger and reminded us all what a magnificent Air Force we possess—and more importantly, how magnificent the people are that belong to it, and what they can do when challenged. Their achievements are always far above expectations, and they responded to this crisis with alacrity and a sense of purpose. Everyone felt they had a role to play, that they were responsible to help alleviate the suffering and the despair that could be felt, and they worked selflessly to make things better as fast as they could. I am not going to say it was perfect. Who would expect the response to a disaster of this magnitude to be perfect? There were certainly some starts and stops, but the team came together quickly and worked well. I could not have been more proud of their hard work or more satisfied to be part of this command.

This study tells the story of the men and woman of AETC who rushed to the aid of their wingmen at Keesler and to their countrymen in need. The historians of the command interviewed many of the people directly involved, and the authors allowed the participants tell the story in their own words. In addition, these pages preserve some of the lessons we learned, both things that worked and things that needed to be improved, and for that reason should serve the reader well as we prepare for the potential of another catastrophic storm in the hopefully distant future.



WILLIAM R. LOONEY, III
General, USAF
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Preface

The Air Education and Training Command's response to Hurricane Katrina was a pivotal event in the organization's history. Unlike previous storms that shut down training for a day or two, Katrina caused serious problems. In a fast-paced disaster response, often the information most significant to the historical record is not available in written documents, making interviews essential. This study rests solidly on a series of oral history interviews conducted at several AETC bases by the command's historians with 65 members of the command and other participants in the relief effort. In addition, Dr Bruce Ashcroft and Dr Joseph Mason had extensive informal discussions with AETC members, and Dr Ashcroft attended meetings of the technical training reconstitution Tiger Team. Throughout the effort, AETC historians collected documents that underpinned the information gathered in interviews.

The authors attempted to cover not only the hurricane, but also, and perhaps more importantly, the first few months of the recovery effort. Chapter 1 deals with the preparations and initial response to the devastation Hurricane Katrina wrought on Keesler AFB. It covers the first few days of digging out after the destructive storm, evacuating students to Sheppard AFB, and evacuating medical patients from the base, as well as the welcoming of Air Force evacuees to Maxwell and Columbus AFBs. Chapter 2 provides a historical overview of hurricanes at Keesler and covers the reconstitution of training. The command's extensive involvement in humanitarian relief operations is the subject of Chapter 3. Because the leadership of the 97th Mission Support Group formed the nucleus for the 97th Air Expeditionary Group and, moreover, was assigned to Keesler to support the 81st Training Wing, their operations are covered here, though the group was under the operational control of First Air Force. Other significant topics in Chapter 3 are the evacuation of displaced persons from New Orleans to Lackland AFB and facilities on KellyUSA, the aerial port operations of the 314th Airlift Wing to receive international aid flights at Little Rock AFB, and the support provided to FEMA by the 42nd Air Base Wing at Maxwell AFB and the command's medical community. Chapter 4 addresses the quality of life of Keesler members, and Chapter 5 covers the interim and long-term projects to rebuild Keesler.

Operation Dragon Comeback was the name adopted by Keesler to describe the base's hurricane recovery effort. Though AETC, in addition to reconstituting training at Keesler, played an important role in many other aspects of the national disaster response, we decided the name was a fitting title to describe the command's overall effort.

The work was a collaborative effort. Dr Mason wrote Chapters 1 and 3 and the interim recovery section of Chapter 5, while Dr Ashcroft wrote Chapters 2 and 4 and the long-term recovery portion of Chapter 5. Mr Thomas Manning, command historian, edited the manuscript. Ms Ann Hussey, also of the AETC Office of History and Research, conducted several oral history interviews at Altus AFB, with the assistance of MSgt Rich Guinan, the 97th Air Mobility Wing historian. TSgt Logan Blackmon, 81st Training Wing historian, was instrumental in setting up interviews with key personnel at Keesler AFB and obtaining and copying source documents used in this study; Wall Studio generously opened their doors for three days in order to videotape these interviews. Mr George Cully of the Air Force Historical Studies Office shared the work of interviewing Keesler members with Dr Ashcroft, who also recorded many interviews at Sheppard AFB, with the assistance of Dr Dwight Tuttle and Ms Kathryn Miller of the 82nd Training Wing history office. MSgt Devin Driskell, the 314th Airlift Wing historian, conducted interviews at Little Rock AFB, and TSgt Tracy English, the 37th Training Wing historian, assisted with the interviews at Lackland AFB. Dr Mason interviewed members of Luke AFB's 56th Fighter Wing as well as General Looney and CMSgt Rodney Ellison. Mr Richard Emmons, deputy command historian, and Dr Ashcroft interviewed several other members of the Headquarters AETC staff. We also thank all of those who helped to schedule the interviews, as well as TSgt Oscar Vega, who arranged for their transcription, and to the members of the command who candidly shared their experiences with us.

When Maj Gen Michael C. Gould assumed the reins of Second Air Force, he visited HQ AETC and briefly toured the history office. Faced with the daunting task of rebuilding Keesler and resuming its training mission, he asked for what lessons the Air Force had learned in restoring bases stricken by past disasters. Unfortunately, most previous studies had succumbed to the temptation to comply with the "a big storm came, there was lots of wind and rain, and everyone was a hero," genre. We consequently resolved to write, with the help of the men and women of AETC who directly participated in the hurricane response, a study that might prove more useful to future commanders. Any shortfalls in the attempt are ours alone.

Bruce Ashcroft
Joseph Mason

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Chapter 1

Crisis Response

For several Air Education and Training Command (AETC) bases on or near the Gulf of Mexico, hurricane season was an annual affair. Atlantic hurricanes form between June and November each year, when warm ocean waters, abundant atmospheric moisture, and light winds allow tropical depressions to strengthen. Hurricanes produce heavy rain, high winds, and a dangerous storm surge in coastal areas. AETC bases and training locations had experienced destructive storms. Hurricane Camille hit coastal Mississippi in August, 1969, battering Keesler Air Force Base (AFB) with sustained winds approaching 190 mph and caused widespread devastation. In August 1992, Hurricane Andrew destroyed Homestead AFB, forcing AETC to relocate its USAF Water Survival School to Tyndall. Tropical storm activity in the Atlantic Ocean had been in at an above normal level since 1995, part of a long-term climactic cycle. In 2004, Hurricane Ivan significantly damaged Pensacola Naval Air Station and Corry Naval Station, Florida, where AETC conducted aircraft maintenance, water survival, and intelligence training. Experience with major storms meant that AETC bases in coastal areas prepared for tropical storms as a normal part of their operations.¹

In addition, the USAF regularly offered support to state and local governments during natural disasters. The process was for local authorities to request assistance from the Federal Emergency Management Agency (FEMA), which in turn requested the support of active-duty forces from the Department of Defense (DoD).

After the 2004 hurricane season, the command revamped its crisis response procedures. The response to Hurricane Ivan had been reactive; the CAT brainstormed solutions to problems as they occurred. To improve their response, AETC developed operating guidelines to use before the hurricane made landfall to ensure personnel safety and accountability and to minimize impact on the mission. The planning also focused on developing procedures to account for personnel and to resume training in the aftermath of a storm.²

Keesler AFB had a long history of hurricanes and rehearsed emergency procedures regularly, many of which had been fine-tuned just prior to Hurricane Katrina. The base had not been hit by a serious hurricane since 1998, so Hurricane Ivan in 2004 exposed a lack of recent experience with sheltering procedures, as people waited in

long lines to process into the shelters. The base made adjustments, and the evacuation and sheltering during Hurricane Dennis in July 2005 went very smoothly.³ Hurricane Ivan had done \$3 million in damage to the base in 2004 and required base personnel to shelter overnight. Base residents practiced entering designated shelters twice a year, and the wing developed efficient methods of accounting for people entering the shelters. Brig Gen William T. Lord, Commander, 81st Training Wing (81 TRW), explained the system:

One of the lessons learned [from Hurricane Ivan] was that it takes a while to process folks, their families, and their pets into shelters. So we had developed, and purchased, and implemented kind of a unique bar code scanner where we could just read your ID card and whether you were civilian, military or dependent,...and send you straight into the shelter. And then we knew exactly where people were and what rooms they had been assigned to.

The wing designated six shelters on the base, one of which was the hospital. The other five were classroom buildings constructed in the 1950s and 1960s out of cinder blocks with few windows. Only one shelter had enough windows to allow its occupants a ring-side seat to watch the hurricane unfold. As Brian Drake, the deputy base civil engineer, explained, however,

while the exercises were very helpful in ironing out the decision-making process, the damage from Katrina exceeded anything they had contemplated.⁴

Hurricane Katrina

Hurricane season in 2005 was very active, spawning 27 tropical storms between 1 June and 30 November, the conventional hurricane season, though tropical cyclone activity continued into January 2006. Seven of the storms were major hurricanes measuring Category 3 or more on the Saffir-Simpson scale.

Figure 1.1
Saffir-Simpson Scale

| Hurricane Category | Sustained Wind Speed | |
|--------------------|----------------------|-----------|
| | (mph) | (knots) |
| 1 | 74-95 | 64-82 |
| 2 | 96-110 | 83-95 |
| 3 | 111-130 | 96-113 |
| 4 | 131-155 | 114-135 |
| 5 | Above 155 | Above 135 |

In 2005, the storms formed earlier and more were stronger than in a typical year, with an unprecedented three storms reaching Category 5 (including Hurricane Wilma, the lowest recorded pressure ever in the Atlantic basin), more than any season on record.

The National Hurricane Center issued its first advisory on Katrina on 23 August 2005, reporting the formation of Tropical Depression 12 southeast of

Nassau, Bahamas. The storm had just reached hurricane strength (Category 1) when it made its first landfall between Miami and Fort Lauderdale, Florida, on Thursday, 25 August, bringing heavy rain and damaging trees, power lines, homes, and businesses in south Florida.⁵ The storm passed over the Florida peninsula in seven hours, losing little strength, and rapidly intensified as it traversed the Gulf of Mexico. Friday's forecast predicted that the storm would turn to the north and make a second landfall in western Florida on Monday morning as a Category 3 storm. As the storm loomed in the Gulf of Mexico, Maj Jeffrey Szatanek, the chief of operations for the 81st Civil Engineer Squadron (CES), received a call from the 823rd RED HORSE⁶ Squadron (RHS) at Hurlburt Field, Florida. His colleague joked, "Hey, do you think we could evacuate to Keesler? Because it looks like we're going to be hit by Katrina." The predictions of a storm's intensity and projected path contained a high degree of uncertainty, however, and the storm intensified quickly, gradually shifting to the west. Within days, a convoy of the 823 RHS was cutting its way through downed trees to reach the Mississippi base.⁷

On 26 August, President George W. Bush declared a state of emergency in Louisiana, and Governor Kathleen B. Blanco activated the state's emergency response and recovery program. The governor of Mississippi followed suit the next day. On the weekend prior to Hurricane Katrina's second landfall, the president added the states

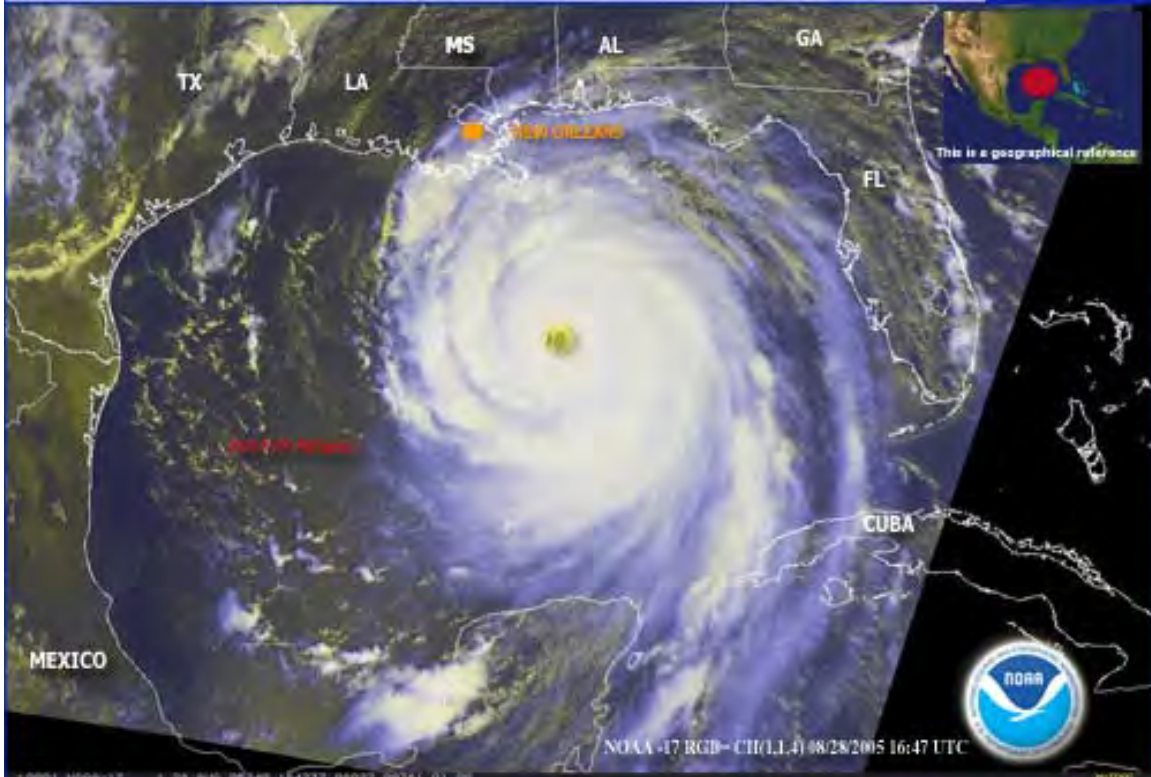
of Mississippi and Alabama to the previous disaster declarations in Florida and Louisiana.⁸

Standup of Crisis Action Teams

Hurricane Katrina intensified rapidly in the Gulf of Mexico. Situated on the Gulf Coast, the 81 TRW's operations support flight always kept an eye on the weather, and on Thursday, 25 August, the wing staff began to watch Hurricane Katrina closely. They began to form their Crisis Action Team (CAT) the following day.⁹

Also at Keesler, on Friday, 26 August, Second Air Force CAT member, Capt John Sims, telephoned Capt Charles Rice, who was the officer on duty at the time. After discussing the forecast, they activated the CAT immediately.¹⁰ The 81 TRW CAT formally stood up on Saturday at 0730, with Second Air Force representatives in attendance. Although Headquarters, Second Air Force was officially a tenant organization on Keesler, General Lord integrated its leadership with the wing CAT. He and Maj Gen Loyd S. "Chip" Utterback, commander of Second Air Force, "sat at the head of the table and helped make decisions for the entire base, as a great partnership. And his staff integrated with my staff [helped] us manage all of the balls that were in the air at the time."¹¹

On Maxwell, the 42nd Air Base Wing (ABW) activated its CAT at 1330 on Friday, 26 August and directed the Unit Control Centers (UCC) for the



This satellite image shows the size of Hurricane Katrina on 28 August 2005, as Keesler AFB personnel were taking shelter or evacuating (NOAA photo).

42nd Medical Group and the 42nd Mission Support Group (MSG) to activate at 0800 on 28 August.¹² The function of the UCC, which normally consisted of unit orderly room personnel, was to track information concerning personnel and manning strength.¹³

As the hurricane approached, General Looney realized that “this was a very, very powerful storm, and it was going to do some significant damage.” Headquarters AETC also stood up its CAT, though most of the preparations were performed happening at Keesler. After speaking with General Lord and General Utterback, he was confident they had “a superb job of determining

when people needed to evacuate, get them on the road, [and] for those that did not evacuate, [and] to get them into shelter,” and the CAT awaited the hurricane’s landfall.¹⁴

All senior AETC staff members were off base in a training course as Hurricane Katrina crossed the Florida peninsula into the Gulf of Mexico. Brig Gen Gilmary “Mike” Hostage, the AETC Director of Operations, was on leave. Normally the deputy director of operations is the CAT director, but under the circumstances that responsibility fell to Col Anthony Imondi, the chief of the Flying Training Division, Directorate of Operations. Normally, he and several colonels would have ro-

tated the deputy CAT director position. As the storm unfolded, Colonel Imondi worked 18-hour days for the first four days of relief operations to stabilize the situation at Keesler and evacuate the students. After that, AETC established a schedule in which several colonels served in the position to fill two 12-hour shifts per day.¹⁵

Many of AETC's senior leaders had just taken command of their units, because summer was the typical time for PCS moves. Major Szatanek had just arrived at Keesler days before Hurricane Dennis in July, and when Katrina appeared in the Gulf of Mexico, he quipped, "Welcome to Keesler," was a very common joke." General William R. Looney III became the AETC commander in June 2005. Col Paul McGillicuddy, 42 ABW vice commander, spent his first weekend on the job in CAT meetings. "I've been in CATs before at Kunsan, so I know the functions of them... and the attitude I saw [at Maxwell] was that we were going to lean forward to support the relief effort." Throughout AETC, new commanders relied on the experience of civilians and military members who had been on a base for awhile, and all military personnel, whether in leadership positions or not, fell back on their training and experience in their core air force specialties. General Looney observed that, while certainly no one would ask for a devastating hurricane to strike their organization, the crisis brought the new leadership of AETC together in a way that day-to-day training and exercises could never have done.¹⁶

Keesler Evacuation and Sheltering

On Saturday evening, at 1800 local time, General Lord ordered all of Keesler's approximately 16,000 personnel either to evacuate or take shelter in anticipation of Hurricane Katrina's landfall.

As [Hurricane Katrina] began to get very powerful, we really began to focus our attention. We thought that we would have time perhaps to wait it out through the weekend, and then she began to travel much more quickly, almost due north. So it was Saturday that I decided that we needed to head into shelters. [On] Saturday evening I declared under my own authority, [following] a little consultation with the two mayors [when I] told them what I was doing and not asking their permission, and evacuated 10,000 people.¹⁷

The remaining 6,000 sheltered on base.

All non-mission essential personnel living within a 75-mile radius of Keesler AFB were to evacuate beginning at 0600 the following morning, unless they planned to shelter on base. Evacuees went to any location they selected as their "safe haven," as long as it was between 150 and 700 miles from the base, and called their UCC to report their safe arrival. General Lord "directed that they go farther than 150 miles from base, because we had some

trouble in previous hurricanes where we evacuated people and they drove 20 miles down the road. So they really needed to get out of the way of this one.”¹⁸ Those who decided to shelter on base along with the mission-essential personnel were ordered to report to one of six shelters on Keesler by 1100 on Monday. Civilians were urged to shelter in their local communities or evacuate. All students, whether living on or off-base, sheltered on base. The six designated shelters on Keesler were to open at 2000 on Sunday evening.¹⁹

Throughout the weekend, the 81 CES worked to protect the mission-essential buildings on Keesler. Engineers installed pre-cut plywood panels over windows, to protect from flying debris, but as Major Szatanek explained, “We did not have any hardening kits for a 20-foot storm surge.” The 81 CES assigned a team to each hurricane shelter to handle any emergency repairs necessary during the storm.²⁰

Hurricane preparation at the Keesler Medical Center differed somewhat from other parts of the base. One of the six shelters on base, the hospital housed patients and those with potential health care needs, in addition to roughly 1,000 ordinary personnel seeking shelter. Women in the later stages of pregnancy, for example, could potentially require medical attention but be unable to reach the hospital if they sheltered off-base and the storm damage made roads impassible. As part of their hurricane preparation, the hospi-

tal staff made certain the necessary supplies, equipment, and adequate staff was on-hand to meet the special needs of patients sheltering in the facility. Preparations otherwise were the same as for the other shelters. Dr (Brig Gen) James Dougherty, commander of the 81st Medical Group, explained the routine procedures of securing the shelter under his command.²¹

*The rest of the sheltering operation is pretty typical from what we practice all the time. We make sure that we have food and water supplies and the people are assigned to teams. There were shelter teams, there were manpower teams, there were those kinds of things that we always constitute when we practice this so we can make sure that we can react to any changes while the storm is going on.*²²

Hurricane Dennis had been good preparation for Katrina. The staff had been through the procedure only a month before for that July storm, which did relatively minor damage to Keesler and had required people to remain in shelters for only 8 hours.²³

Hurricane planning involved five degrees of warning that corresponded to the severity of the threat (see Figure 1.2). At each level, the base took appropriate actions to prepare personnel for a potentially damaging storm.

Due to the massive evacuation of New Orleans, which was voluntary on

Friday morning but became mandatory on Saturday, I-55 northbound from New Orleans, I-10 eastbound to Pensacola, Florida, and westbound to Houston, Texas, and I-65 northbound from Mobile, Alabama, were jammed with traffic. The mayor of Biloxi waited until Sunday morning to order an evacuation. Captain Rice recalled the evacuation.

*hours ahead, they were able to get to their locations, and it did take some time but they were able to make it there.*²⁴

Those who remained in shelters at Keesler avoided the traffic jams, but they faced a six-day ordeal few anticipated.

Figure 1.2
HURCON (Hurricane Conditions)

- 5 General State of Preparedness
- 4 Winds of 50 knots or greater possible within 72 hours
- 3 Winds of 50 knots or greater probable within 48 hours
- 2 Winds of 50 knots or greater expected within 24 hours
- 1 Winds of 50 knots or greater imminent within 12 hours

Source: BBP, Maj Caudill, "AETC Hurricane Operating Guidelines," 1 Aug 05.

Several training detachments assigned to Sheppard AFB's 82nd Training Wing faced potential damage from Hurricane Katrina. The 982nd Training Group had training detachments at Tyndall, Eglin, and Hurlburt Field, Florida, who also sheltered in place and expected to resume normal duty no later than Tuesday. Also sheltering in place at Eglin was Detachment 3 of the 366th Training Squadron and a detachment of the 882nd Medical Group, with only mission-essential personnel expecting to report to work on Monday. Much closer to the likely landfall, 4 permanent party and 82 students of Detachment 6, 366 TRS sheltered on Gulfport Naval Station, while 33 other permanent party evacuated with their families. The commander of Pensacola Naval Air Station, expecting a storm surge between 9 and 13 feet, ordered an evacuation, including Detachment 2 of the 361st Training Squadron, by bus to Albany, Georgia, Corry Naval Station, or to safe havens locally.²⁵ Other bases not in the path of the hurricane prepared to provide assistance if needed.

An interesting point on the evacuation is that every major exit for the Gulf Coast was blocked because of the traffic, come even Saturday night. So when Biloxi decided to go ahead and issue the order, Sunday morning, as we were all going to come to the CAT meeting, I-10 was at a standstill. Just the fact that our folks were ready to go and had gas in the car because they got the word out 24



Hurricane Katrina's record low pressure, 125 mph winds and high tides converged to create a storm surge that raised the level of the Back Bay of Biloxi nearly 30 feet above normal. This restroom lies between the 12th and 13th holes on the Keesler AFB golf course (USAF photo).

Meanwhile, the 81 TRW completed its last-minute preparations. In the words of General Lord:

As an Air Force you know we are used to bringing the fight to the enemy, not waiting for the enemy to overrun our position which is what we do in a hurricane. So, for a while there it was very busy. We have a lot of experience in buttoning-down the base, so the civil engineers, were out sandbagging everything. We knew that, for example, the Air Traffic Control simulators that we have in the training group [were] very expensive

*equipment [and] the only place in the Air Force that you can teach that stuff, so we made sure that equipment was protected.*²⁶

Commanders and UCCs focused on maintaining an accurate head count and knowing where their people were. Procedures for checking people into the shelters had been streamlined in 2004 and in effect dress-rehearsed during hurricane Dennis in July. Assuring the safety of approximately 16,000 base personnel continued long after the decision to evacuate. "And then it is accounting for everybody," General Lord explained, "okay are you in the shelter or are you outside of the shel-

ter—and then setting a shelter for of all crazy things, pets.” Animals were not allowed in the six hurricane shelters, and experience had shown that their owners were reluctant to enter the shelters unless they were certain their pets were also safe. In addition to sandbagging building entrances, engineers had also placed barriers around storm drains to prevent potential hazardous material spills from flowing into the ocean. Of course, considering that the storm surge was soon to sweep millions of tons of debris into the ocean from the Mississippi Gulf Coast, their assiduous efforts would resemble the proverbial Dutch boy with a finger in a dike. As a final preparation, the six hurricane shelters were “hardened” by sandbagging and nailing plywood over most entrances.²⁷

General Lord explained that the wealth of responsibilities kept him from thinking about the approaching storm.

Initially, quite frankly, you are so busy concerned about the buttoning-up of the base, making sure that people you have are doing safe things, that you are not really worried about a Category 5 storm that is bearing down on you. And then all of a sudden you go into this literally ‘the eye before the storm,’ if you will, where there is nothing more that you can do except wait for it to come on shore and pass.²⁸

The Storm

Landfall

The town of Buras-Triumph, in Plaquemines Parish, Louisiana, had the dubious distinction of hosting Katrina’s second landfall, this time with sustained winds of 140 mph. The storm had been downgraded from Category 5 only two hours before landfall. After crossing the southern isthmus of Louisiana, the storm crashed ashore for a final time near the Louisiana-Mississippi border with sustained winds of 125 mph at 1000 on 29 August and dropped 8-10 inches of rain. Keesler AFB endured hurricane-force winds for approximately 12 hours. Located on the Back Bay of Biloxi, Keesler suffered a storm surge of approximately 18 feet, which effectively submerged half of the base, destroying 800 houses on base, filling the Base Exchange (BX) with 5 feet of water, and flooding the basement of the Keesler Medical Center (see Appendix B). The triangle dormitory area, however, had been built on slightly higher ground and designed to withstand Category 5 winds. For this reason, Keesler survived the storm more intact than most of the surrounding communities. Tens of thousands of homes were destroyed in coastal Mississippi, many reduced to mere foundations. Needless to say, power, telephone, and cell phone service were destroyed, bridges were washed away, and roads were filled with downed trees, overturned cars, beached boats, and debris from shattered homes. Nearly 300 people were

killed or went missing in Mississippi. Over the next 24 hours, the storm deteriorated and passed near Columbus AFB, Mississippi, though it remained a hurricane until midnight on 29 August and maintained tropical storm-force winds all the way to Clarksville, Tennessee.²⁹

In the shelters, Keesler personnel heard shrieking winds much more powerful than any storm in their memory. The CAT was housed in one of the six shelters, and Col Robert F. Simmons, Second Air Force director of operations, recalled the scene. “The winds were howling, to say they were screaming for about 12 hours.” Com-

munications failed. “We started losing phones, then cell phones, and [then were] down to e-mail, and then, of course, we lost e-mail for a bit as well.” The CAT was reduced to “the mark 2 eyeball,” that is, collecting the information available only to their immediate senses. General Utterback and other members of the CAT went to the building’s second floor, where they could watch the storm through a glass window. Colonel Simmons knew that General Utterback had seen the storm surge, “and he kept that to himself; he did not want to create a panic.”³⁰

The civil engineers, security forces, medical personnel, and com-



This photo, taken by members of the 81st Civil Engineering Squadron in front of the commissary from their truck, nicknamed the “Dominator,” shows the storm surge on Keesler AFB, Mississippi, as Hurricane Katrina began to pummel the base.

mand staff stayed active throughout the storm, and their efforts preserved critical infrastructure as well as saving lives. There were “hairy moments for a very small population of the first responders, but they did a great job,” Colonel Simmons recalled. “They did a great job saving the water supply on the base, which required some pretty extraordinary heroics.” The civil engineers had filled the tank of a vacuum truck, nicknamed the “Dominator,” with water, which served as ballast to weight the truck to prevent it from floating in the anticipated floodwaters. As the storm worsened, Al Watkins, utilities manager, and MSgt Lonnie Bacon, in charge of the base’s electrical infrastructure, drove around the base in the Dominator to keep emergency generators running at nine active well-heads to prevent brackish water from contaminating Keesler’s water supply. On a second trip, Mr. Watkins and Stanley Morgan, infrastructure manager, rescued two members of the 81 CES squadron trapped at the Keesler Medical Center. From inside the vehicle they took photos, which were widely circulated on the internet immediately after the storm, showing the severe flooding. Colonel Simmons stated, however, that the photos had been taken “before it started getting really bad.” Eventually, “the winds started snapping off limbs, and they came really close to one of the senior officers out in the vehicle,” and all personnel retreated to the shelters.³¹

The hospital basement flooded at around 10:30 on Monday morning, disabling first the main and then the

backup power to the building. The 1,327 people who had taken shelter in the hospital were plunged into an eerie darkness illuminated only by flashlights for the next five days. General Dougherty, who had arrived at Keesler days before hurricane Dennis in July, witnessed the powerful storm surge as it flooded the medical center. “The process by which this occurs is fascinating,” he recalled.

That morning of the storm I got up at 6 a.m. and went up to the 4th floor to look back in the northeast corner of the hospital, which is about 7,500 yards from the [Back Bay of Biloxi]. It is real close there, and I was looking out there because I had been told that...we get flooding... when the bay comes up to the hospital. It looked like it was pretty much where it always is, and the winds were about 35 knots, so I thought, well we will watch this and see how it progresses.

I always thought a storm surge was like a tsunami or something. Or maybe just a rising tide, but it is not either one of those things. It happens very fast, and it is like waves breaking on the shore, but each one is higher.

Though he had experienced several hurricanes before Katrina, this storm was the most powerful in his memory.³²

About 1000, the hospital staff ran up to the general and told him to come down to the basement at once. The flooding was severe. Cars were floating in the parking lot and, pounded by waves, were bumping into the sides of the hospital. By the time he reached the basement, the windows had all blown out, and water was up to the window sills. The situation in the basement was critical. "I had one exterior door [in a corner of the basement] that was glass, and the water was up about 3 feet on that door," General Dougherty recalled. "It was like an aquarium—like when you go to the zoo, you know you can actually see the fish swimming around—and I thought, 'That [door] is going to go here any minute now.'" The dining facility, also in the basement, was destroyed, though the freezers remained intact and their contents provided an alternative to MREs during the recovery after the storm. The staff preserved thousands of medical records by hauling them out of the basement to an upper floor by hand.

We had 100,000 medical records down there, and before the water got too high, we managed to get every one of them out of there and to higher ground. We had a few that got a little damp, but they are still intact. We thought that was our first priority. I can replace drugs, I can replace an EKG machine, but a medical record is a treasure that cannot be replaced. [It] is a lifetime

*medical history that is crucial to people's care.*³³

As the flood waters rose, the next priority was to retrieve the shelter's emergency food supply, MREs and bottled water. As General Dougherty explained, the medical staff adapted to the problem at hand.

That was an interesting process, too, because they were all out in a warehouse that was adjacent to a loading dock where the largest water breach came in. So they were wading through this current getting the MRE boxes. My staff was ingenious about this. They found that the current...flowed the length of the warehouse into a hallway around the corner and up to a stairwell. They took the MRE cartons and threw them in the water, and they floated all the way down to there and then somebody in the stairs picked them up and took them upstairs.

The hospital staff salvaged two-thirds of the MREs before some of the Airmen were in danger of being swept away, at which time General Dougherty called a halt and ordered everyone out of the basement. Before they evacuated, however, there was one more urgent task.³⁴

The fuel storage tanks for the backup generators were leaking, causing diesel fuel to mix with the water in



The storm surge from Hurricane Katrina devastated businesses along U.S. 90, the highway that passed through the coastal communities near Keesler AFB, Mississippi.

the basement. The safety valve had to be shut off, which General Dougherty explained was done by “one young man who was an absolute hero.” SrA Mark Prohaska, an EMT-trained firefighter and reservist from Homestead Air Reserve Base, Florida, had sheltered at the hospital.

He came with all his fire equipment. I don't think I have ever taken my medical equipment on a TDY, but he came with all his fire equipment, his suits, his air packs, everything, and he brought that to the shelter with him. So when this happened, he

was the guy that was trained [in hazardous material handling] to be able to go down and [close the fuel valve].

Airman Prohaska did not stop there, General Dougherty recalled.

About three different times during the sheltering he was instrumental. We had a car fire outside, and he went out and took care of that. During the middle of the storm, we actually put a life line on him with people holding on to it inside the building while he went out to the generator

*building to secure that area and to make sure that no leaks would occur out there. A wonderful young man, he was just a constant presence. I would come out of meetings and he would be standing there saying, is there anything you need me to do?*³⁵

The other five hurricane shelters were not in the area of the base most affected by the storm surge, but they also suffered some flooding. Water leaked into one shelter after the wind ripped plywood off the entrances and overwhelmed the sand bag barricades. “The wind ripped off the plywood and it was gone pretty darn quick,” Maj Anthony Williams, a shelter commander, recalled, “and then you could see the flood waters coming over the sand bags into the building. That added a little more stress to our already stressful situation.” The temporary residents of that shelter built dikes out of sand bags to channel the water and to contain the flooding as much as possible before crowding into the second floor. The winds forced water through the ventilation ducts in another shelter, forcing the residents from one side of the building to the other. Fortunately, the shelters were not filled to their maximum capacity because of the lower number of non-prior service (NPS) students in the FY05 year group, and so the shelter commanders were able to get their people out of the water.³⁶

The most immediate problem at the Keesler Medical Center involved

two patients on ventilators in the intensive care unit (ICU). Though the machines could operate on battery power, the supply of batteries was all-too-quickly depleted after the flooding disabled the primary and backup power in the building. General Dougherty recalled the scene.

It was a last minute save when some of the CE guys drove up in the near aftermath of the storm. The winds were still pretty high. They drove up with a small portable generator and chained it to a pillar outside an exterior door so it would not blow away. We then ran power cables through that door, up the stairs, across the hall into the ICU, and plugged those people into that portable generator, literally within minutes of us totally running out of [battery] power. We had people standing there waiting to bag [the patients] manually to keep them alive, so their arrival was timely....These guys showed up, soaking wet, and came running into the ICU with their power cables. Around the room were startled looks, and the cardiologist said, “My God, you guys just saved this guy’s life.”³⁷

The medical personnel preformed heroics of their own when doctors delivered a baby by caesarian section. Seven lanterns and three headlamps



The damage from Hurricane Katrina made many roads around Keesler AFB impassible, even after workers had cleared debris from shattered houses and downed trees. In the distance, only a roof and vertical supports remain of a fast-food restaurant.

provided enough visibility for doctors to perform the operation and deliver a baby girl (not named Katrina) safely.³⁸

Initial Damage Assessment

After the storm, senior leaders began to assess the damage to Keesler and prepared to restore basic services on the base. All personnel who sheltered on base survived the storm. One Keesler employee who sheltered off-base, died from complications related to an injury sustained during the storm.³⁹

The 81 CES's Damage Assessment and Recovery Teams (DART) were the first Keesler personnel to respond to the storm. As soon as the hurricane-force winds subsided, they were responsible for assessing the damage to the base and assuring the safety of base personnel. The squadron also maintained a command and control center in the civil engineering building to support the initial recovery effort.⁴⁰

While personnel worked to clear the runways, the 81 CES's DART teams began to clear pathways through the debris on base, gradually clearing roads to allow vehicular traffic. Many

downed trees blocked roads, and others had fallen on homes or had damaged natural gas lines underground as the winds uprooted them. To guide the initial assessment and recovery, Major Szatanek referred to Keesler's disaster recovery plan, which assigned a priority to each building on base, but the widespread damage required some immediate decisions to restore the basic necessities of life. In addition to restoring airfield operations, the 81 CES focused on bringing the dining halls back on-line and finding places to sleep for the 6,000 base residents who had sheltered on Keesler (as well as those deploying to the base to assist with recovery efforts).

The storm damaged approximately 95 percent of Keesler's infrastructure. Nearly three-quarters of the industrial facilities had sustained roof damage, and a quarter of the buildings were unusable. Garrard and McClellan Halls, 2 of 14 major training facilities on the base, were non-operational because of flood damage. Of the 1,800 family housing units, 1,000 were uninhabitable. The 403rd Wing's headquarters building was also heavily damaged. As mentioned previously, the BX and commissary had flooded. The Keesler Medical Center, the Air Force's second largest hospital, was disabled. The storm surge left sink holes on the base and washed out soil underneath the foundation of the medical center. "One of the civil engineering guys was walking along the back edge of the hospital where there is a sidewalk next to the actual exterior wall, and he just disappeared," General Dougherty recalled.

"He just went sploosh." Despite the devastation, much of the Mississippi Gulf Coast had fared worse.⁴¹

Mississippi Gulf Coast

With limited communications, the Keesler CAT did not at first realize the extent of the damage to the surrounding communities. From his location at the medical center, General Dougherty, like the other senior leaders at Keesler, did not initially realize the full impact of the storm on the Gulf Coast.

It was not until the second day, because we were so isolated from everybody outside the perimeter, that we realized we were in some sense the best-off island here in the middle of an absolute disaster. We were so shut off for that first day or so that we had no idea [of the extensive damage off-base]. Our radios were not connecting up with anybody, and of course all the land lines, cell phone towers, and everything else were gone. I tried the first day to send out a pharmacist with the security forces guys three times, to get to the VA [Veteran's Administration hospital], which is just a mile down the road, and they could not get there. There was just too [many] trees, power lines, and everything down, they just could not make it. We were physically isolated. The communica-

*tions were all out and we just had no idea, because we did not sustain any losses. Everybody that sheltered on base survived the storm...it was a shock to realize that we had been very fortunate.*⁴²



General William R. Looney (center), AETC commander, Maj Gen Loyd "Chip" Utterback (left), Second Air Force commander, and Brig Gen William T. Lord, 81st Training Wing commander, discuss the extensive damage to Keesler AFB's industrial and housing areas during General Looney's visit to the base to survey the damage caused by Hurricane Katrina three days earlier (USAF photo by TSgt Jennifer C. Wallis).

As soon as they were able to leave the base, however, the base leaders realized the scale of the disaster and rushed to help the local communities. In addition, the USAF ordered active-duty forces, including the 97th Air Expeditionary Group (AEG), led by the Altus AFB's 97th Mission Support Group, into the disaster zone to assist civil authorities. These humanitarian relief operations are the subject of Chapter 3.

General Looney and CMSgt Rodney Ellison, AETC command chief master sergeant, visited Keesler on Thursday, 1 September, to examine the damage to the base. "We came here because we wanted to see [the damage] for ourselves," he explained to Keesler personnel. "Chief Ellison and myself also brought each of our wives because we wanted them to talk to your wives. It pains me to see my people suffer."⁴³ General Looney said the destruction was "sobering," but noted that the base, because of its decision to build Category 5-proof buildings and bury the communications and power lines, had fared better than Biloxi, "which looked like some kind of weapon of mass destruction had gone off."⁴⁴ Chief Ellison realized immediately that the devastation off-base would impact Keesler for years.

We had the opportunity to board a Blackhawk helicopter [UH-60] and fly over the coastline. Landmarks that had been there since [hurricane] Camille were totally gone, and it, again, was something you're just not prepared to see what was an Antebellum home be nothing but a pile of sticks. The casinos, many of the landmarks, and some of the old churches were just completely off the map. So, even though leaving Keesler, you realize how fortunate we were 'inside the compound,' inside the confines of the base, how lucky you were. You understand



The devastation depicted in this aerial photo is an example of the damage sustained in Gulfport, Mississippi, a few days after the cleanup of debris left by Hurricane Katrina began. Bridges, roads, and tens of thousands of homes and businesses were destroyed along the Mississippi Gulf Coast.

how the devastation outside the gates will impact the mission at Keesler as well, probably a lot more than anyone could imagine.⁴⁵

In spite of the obvious adversity they faced, the esprit of the base personnel impressed Chief Ellison.

One of the things that impressed us the most was the attitude of the individuals we met from day one. The folks on their [the 81 TRW] Crisis Action Team had weathered the storm and had been on duty anywhere from 24 to 36 hours when we landed. All of them had a can-do attitude,

and you were lifted by their spirits. They knew by and large that everyone in that room, about 20 to 26 people, had lost everything that they owned, and yet they were focused on taking care of the mission. There were about 6,000 folks who had weathered the storm in shelters on Keesler, and they [the Crisis Action Team] were focused on making sure they took care of those folks. You could not help but be impressed by the level of dedication and devotion to duty. Their spirit was 'we're going to be okay.'⁴⁶

Initial Recovery

The restoration of basic services at Keesler, including hot food and secure shelter for the base inhabitants, electrical power, and communications began as soon as the storm winds died down. Also important was clearing enough debris from the runway and roads to allow aircraft and vehicles to access the base.

Though conditions in the Keesler shelters were not as comfortable as their 6,000 inhabitants may have desired, the buildings weathered the storm winds and surge and kept everyone safe within. There were no

fatalities on base. Colonel Simmons described conditions as “hotter than Hades” because of a lack of air conditioning, but because the senior staff wanted to ensure the safety of personnel in the shelters, they were reluctant to allow them to leave. “They did not want people getting out of the building and taking off, so we had to formulate some ground rules,” he explained, in order to “keep a very tight control over them and the students.” The “Natives,” as one shelter commander immortalized them, remained in their shelters for six days. Commanders implemented creative solutions to maintain morale while preserving the safety of the often frustrated occupants, one of



Airmen with the 823rd RED HORSE Squadron at Hurlburt Field, Florida, prepare an emergency airfield lighting system on 1 September 2005 for deployment to Keesler AFB, Mississippi (U.S. Air Force photo by A1C Chris Bautista).



A P-19 fire truck sits ready to be loaded on to a C-130 Hercules bound for Mississippi for Hurricane Katrina relief efforts on 9 September 2005. Fire trucks were essential for providing crash rescue capability to Keesler AFB and other regional airports experiencing a higher tempo of operations due to the relief effort. The Airmen are from the Arizona Air National Guard's 162nd Fighter Wing in Tucson (USAF photo by TSgt David Neve).

the topics covered in Chapter 4.⁴⁷

As the command's first situation report to the Air Staff stated, "Keesler AFB warriors are facing their losses and the challenges with a resolute and can-do attitude in the best traditions of the USAF. They will be back."⁴⁸

Training at Keesler was obviously cancelled until further notice.

Keesler Airfield

As the Keesler CAT began to assess and report the damage to higher headquarters, it became apparent to all levels of the military and government

that the base was the only semi-functioning facility on the decimated coastline. A functioning airfield would provide a vital air bridge not only for moving disaster relief into the area, but also for evacuating base personnel, many of whom were non-prior service (NPS) students who had just completed basic military training at Lackland AFB.

Keesler personnel were able to open the runway, half of which had been submerged at the height of the storm, in only 11 hours after the winds died down. The airfield was initially open for daytime visual flight rules (VFR) landings only, because the ap-

proach and runway lighting were inoperable.⁴⁹

Colonel Simmons recalled that the biggest problem “about the airfield initially, and the scary thing about it, was we were [only] VFR capable. We had a lot of people coming in and landing here, and some mistakenly landed and pulled in front of faster and wide-bodied jets with a very limited ability to control [their movement]. So bringing up a capability for IFR here at the base was a very top concern.” Command and control of the airfield, however, was maintained with some friction.

Some of these people came in and thought that they had the highest priority and did not necessarily. The one famous incident [was] a senior general officer, [who] was insistent that he was coming in [to land]. We told him we could not allow him to come in and he was rather upset with that. There was a lot of dialogue between that staff and this individual, and we could not tell him why he did not have the highest priority. Essentially it was because the President was coming, and he did not have the highest priority coming in the aircraft. We had some disagreements with them in that regard.

The Keesler staff relied on their operational experience to tackle the problem, a recurring theme in the

AETC response to the hurricane. The regular rotation of personnel from operational commands to training positions assured that the command had recent operational experience in the schoolhouse. “We have all the combat expertise here doing the training, so once the base started coming back together, most of us that were involved actually went back to our core AFSC, Capt John Sims, an aircraft maintenance and logistics expert and a Second Air Force CAT officer, explained. Keesler did not normally handle large cargo aircraft, which were now bringing in supplies and personnel to restore base operations. “We had to actually do all the planning on what was needed,” Colonel Simmons explained, “and... having aircraft maintenance officers with me and some guys with that background, we were doing all kinds of things you would not normally expect a guy in a CAT to do.” Captain Sims, for example, shifted focus from his position as deputy chief of the 2nd Air Force Training Applications branch, and acted in the role of an A4 (logistics staff officer).⁵⁰

The airfield continued with daylight operations until 0700 on Sunday, 4 September, when, with outside assistance, 24/7 operations (with IFR capability) resumed.⁵¹ Air Mobility Command deployed the 571st Contingency Response Group (CRG) from Travis AFB to run air mobility ramp operations at Keesler AFB. As with many units and individuals who deployed to the Gulf Coast, the unit traveled on orders completed after their departure to expedite their

movement to Keesler. The group arrived on 31 August at the Gulfport airport on a C-17 and drove to Keesler the following day. Their assignment was to enable the air evacuation of non-prior service students and other personnel and their dependents, and to handle aircraft delivering humanitarian supplies, mainly water on commercial aircraft. The group remained under AMC's operational control and was not CHOPed either to JTF-Katrina or to the 81 TRW.⁵²

Communications and Hammer ACE

On-scene before the storm from Langley AFB was a three-man team from Hammer ACE, a self-supporting, quick-response unit equipped with a variety of communications systems, including satellite links, able to run on batteries, solar power, or portable generators, to ensure that the command element could remain in contact with the outside world in the event that the storm destroyed normal communications systems. The team landed in Mississippi on a commercial flight just before the Gulfport airport closed.⁵³

The Hammer ACE system proved invaluable to the Keesler commanders. The storm disabled commercial and cell phone systems, and though the Defense Switched Network (DSN) survived, Hammer ACE supplemented that phone capability, allowing Keesler enough bandwidth to allow members to briefly contact loved ones to let them know they were safe. In addition, Hammer ACE provided Land Mobile Radios (LMR) and satellite phones to

the humanitarian relief convoys that General Lord dispatched to provide food, water, and a medical team to the local communities immediately after the storm. The team also supported Public Affairs by taking photographs prior to the arrival of combat camera teams. Because the capability was so useful, and the storm damage more severe than anticipated, Maj Alan Estes, the 81st Communications Squadron commander, requested additional support, and seven more Hammer ACE personnel deployed to Keesler from Langley and Scott AFBs.⁵⁴

Hammer ACE provided an important VTC capability to Generals Lord and Utterback. Though at times network problems restricted the capability to voice only, without Hammer ACE the Keesler leadership would have had no VTC capability immediately after the storm. Eventually, technicians at Wright-Patterson AFB reestablished Keesler's VTC capability, using the Air Technology Network (ATN) system, an interactive television network that normally provided continuing education and training to thousands of students at Keesler as well as bases all over the United States and Europe.⁵⁵

Hammer ACE was designed to provide secure command and control capability for a command staff for a relatively limited time. The team deployed with a small footprint, and it was invaluable. If the DSN network had failed, Hammer ACE would have provided the only communications link between the Keesler and the outside world.⁵⁶

To restore communications capability for the rest of the base, members of the 5th Combat Communications Group deployed to Keesler. The senior staff, along with many local residents, were grateful when the regular cell phone system was restored, which happened much more quickly than the regular telephone system.⁵⁷



Carol Evans, a cook with the 81st Services Division, Keesler AFB, dishes up the lunchtime offering of yakisobi at the Azalea Dining Facility on 8 September. At that time, the base's two dining facilities provided two hot meals a day while the base community reestablished its mission in the wake of Hurricane Katrina (USAF photo by TSgt Jennifer C. Wallis).

Because the DSN system survived the storm, unlike commercial long distance and cell phone networks, Eglin, Maxwell, Columbus, and Vance off-netted their DSN calls to commercial lines to free up bandwidth for Keesler members to report in. This capability allowed Keesler to stay connected to the outside world, and as evacuees learned that the capability had survived, DSN became a primary way for previously unaccounted for Keesler personnel to report to their Unit Control Centers.⁵⁸

Services

Base functions that the leadership did not normally think of as critical in a disaster response proved vital. MSgt Stephan Ellis of Headquarters Second Air Force, explained the importance of these functions:

One of the things that impressed me most about being in the CAT was finding out how valuable some of our nontraditional resources were. When we go into battle staff, you go into battle staff with your war fighters, you maintain your logistics. The things we did not consider was how important our Chaplain's services and AAFES were, or [the] commissary. These guys came in and were able to do phenomenal things and from a morale standpoint, the morale of the base changed two days after the hurricane, when AAFES senior leader came in and said I have three truckloads right behind me and we are bringing ice, water, food and gasoline, and generators.⁵⁹

Services personnel counted the available rooms on base and began to bed down relief workers. The Chaplain played a key role in humanitarian relief on the Gulf Coast, not only by providing pastoral care and religious services, but also through their con-



A High Mobility Multipurpose Wheeled Vehicle, far better known as a Humvee, passes a historic home still standing on the Mississippi Gulf Coast. Many of these coastal homes were destroyed by the storm, which washed away the roadway, as seen in this photo.

nections with the many churches in coastal Mississippi.⁶⁰

Maj Pamela D. Backeberg, the Deputy Director of Services at the 81 TRW, declined the opportunity to evacuate prior to the hurricane, remaining instead at Keesler to assist with preparations for the storm. Fifteen hours after the storm passed, one of the damaged dining halls was repaired enough for Services personnel to serve 6,000 hot meals to people who had been eating Meals Ready to Eat (MREs) while in the shelters. Over the next week, 42,000 meals were prepared to feed 7,000 federal, state, and local personnel, plus foreign military and humanitarian organizations operating in the area. Major Backeberg also di-

rected the recovery of food and hygiene items from the flooded BX.⁶¹

The Services personnel were unsung heroes of the hurricane recovery effort. “These were the people we don’t think of first, and I think when you are looking at natural disasters of this type, we need to start considering their role more carefully than what we have,” MSgt Ellis explained. “They turn out to be heavy hitters and major players.”⁶²

AETC Assistance to Keesler

AETC CAT

Through the CAT teams at headquarters and the command’s wings, groups, and independent units, AETC

organized aid to Keesler AFB. As soon as HQ AETC began to receive initial damage reports from Keesler, General Looney directed the AETC CAT to stand up fully. The cycle involved two formal meetings, the first an O-6 level meeting within the command with representatives from each base via telephone or video link, and in the afternoon, Randolph would host a video teleconference (VTC) involving the leaders of every headquarters directorate and each of the command's bases. "I could not have been more pleased with the way the CAT operated and the information that was provided, and the collaboration of the entire command in the process," General Looney explained, while acknowledging that to the key players, there were obviously things to refine. "I am sure they have lessons learned, and things that came up," he acknowledged, "But from my vantage point, I could not have been more pleased with the result of their efforts." Two keys to success were that the command activated its CAT early. "Stand up your crisis action team sooner rather than later. Make sure you are ready, not that you are caught by surprise, because then you are going to get behind and [be] trying feverishly to catch up," General Looney explained.

Number two, bring everyone in. Be as inclusive as you possibly can, so that you hear from all of the various players. One of the very best things that we did in this whole thing was to use technology and VTC in all of the

wings...There would be a comment from Keesler: 'We need generators,' and then the next thing is someone at Little Rock or Luke or whatever, [who] said, we have 3-4 generators to send you. Then the guys at Altus say, okay, we will have a C-17 there in the morning, we will pick it up and get it there.

The inclusive approach allowed the command to solve problems together, rather than having the AETC headquarters staff learning of a requirement from General Lord and then spending time after the meeting to identify a unit with the required assets and to arrange airlift. Instead, "we were able to solve it right then and there, and that was just one example of issue, after issue, after issue" the CAT resolved. Using the command's own airlift assets, the first relief arrived the day after the hurricane, and within a week 284 personnel had deployed in support of relief operations.⁶³

325th Services Squadron

A contingent from the 325th Services Squadron (SVS), out of Tyndall AFB, was one of the first relief units to arrive at Keesler. According to SMSgt Carol Rosette, the group deployed to Keesler on the verbal orders of Col Marc D. Piccolo, 325 SVS commander, at the request of Col Bruce A. Bush, the 81st Mission Support Group (MSG) commander and a former Tyndall services commander, who had called to explain how so many people were be-



SSgt Arthur Hughes uses a chainsaw to remove fallen trees on Keesler AFB. More than 90 Airmen with the 823rd Red Horse Squadron from Hurlburt Field, Florida, deployed to Mississippi to help with the base's hurricane recovery effort (USAF photo by MSgt Efrain Gonzalez).

ing housed on Keesler that food would be an issue once they were allowed out of the shelters. Colonel Piccolo consulted with Les Coalson, deputy director of Services at HQ AETC, and “we made the decision to go late in the day on Tuesday,” Sergeant Rosette recalled, knowing the group could reach Keesler quickly and make an immediate impact. “We rounded up four vehicles, loaded them with gear, recalled the troops and hit the road early the next morning. Many of the troops only had a couple hours notice.” The group of 30 services troops left Tyndall AFB at approx 0400 on Wednesday, 31 August, and after traveling through austere conditions and long lines of traffic, they arrived at Keesler AFB at

approx 1130. After unloading the supplies they had brought with them, the group immediately went to the dining facility, where they began preparing food, using whatever was available. Sergeant Rosette said, “We served dinner from approximately 1500 to 2100 hours and served over 5,500 evacuees and emergency personnel. In addition to the food prep, we cleaned, served, did dishes, you name it—it was just the 30 of us. We arrived back to the services building at around midnight, and in the darkness by using some flashlights found our bags, washed up, and bedded down on the office floors.”⁶⁴

For the first two days of their deployment, the men and women from the 325 SVS consolidated and inventoried foods from all the dining facilities on Keesler, relocating them to the Azalea Dining Facility. Sergeant Rosette commented on the process, saying, “We utilized as much of the fresh produce, milk, etc., so as not to waste anything. We built menus based off of what food was on hand.” Though at first they served only one meal per day, as contractors returned to work in the next few days, two meals were offered. “Once enough contractors were back,” Sergeant Rosette recalled, “they began cleaning the Magnolia Dining Facility and eventually that facility was opened. By the time we left, both facilities were serving three meals per day and I believe the other two facilities opened shortly after we left.” Food service contractors returned to work quickly, even those who had lost loved ones in the storm. Vendors also began to deliver food to the base shortly after the storm.⁶⁵

The quick restoration of dining halls made a big impact on the morale of the base in the first couple of days after the storm. “The most interesting thing to me,” Sergeant Rosette recalled, “was as the folks came through the line and got their food, they would just become so overwhelmed. Many of them would just break down into tears and my very young Airmen serving on the line would console, counsel and support them. It was really moving for my troops.” The food service support was an unexpected and pleasant surprise. “Many people told us they thought

they wouldn't have a hot meal for days—they thought MREs were going to be it.”⁶⁶

823rd RED HORSE Squadron

Air Combat Command's 823 RHS deployed from Hurlburt Field to Keesler to clear downed trees from the base and to help restore airfield operations. One of only four active-duty units of its kind in the Air Force, the squadron was trained and equipped to complete heavy construction projects in an austere environment with minimal outside support. Col Jim Lyon, 823 RHS commander, explained that the group's mission was “to bring supplies, remove debris and provide safe shelters in conditions that can only be described as complete devastation.” The advance team of 20 combat engineers cut their way through roads made impassible by downed trees and storm debris, to reach Keesler a day and a half after the storm. Strong winds and the storm surge had tossed barges into bridge abutments, forcing the team to inspect bridges to make certain the convoy could safely cross them. Often the group had to find an alternate route to reach Keesler. A total of 91 personnel deployed with heavy equipment to the base, where they began to remove the first of nearly 50,000 tons of debris they eventually cleared from Keesler, including downed trees, beached watercraft, disabled cars, and materials from damaged buildings. The 823 RHS was an integral part of the civil engineering team that began to rebuild Keesler, the subject of Chapter 5.⁶⁷

Command and Control of AETC Airlift Assets

Meanwhile, the graduate flying training wings, including the 97th Air Mobility Wing (AMW) at Altus AFB, Oklahoma, and the 314th Airlift Wing at Little Rock AFB, Arkansas, offered to provide support. Though the circumstances were extraordinary, the operations themselves, loading cargo and unloading it at unrefined airfields, were the routine business of the Air Force. The instructors, moreover, had operational experience in other commands, and were therefore “leaning forward” and preparing for a potential relief operation even before the hurricane struck. Lt Col Tal W. Metzgar, commander of the 58th Airlift Squadron (AS) at Altus, acted as the Director of Operations (DO) while the DO was away on temporary duty. The C-17s under his command transported the NPS students out of Keesler to Sheppard AFB. “We’re operators, and we’re kind of spring loaded to be ready to go.” Before the storm struck, the 58 AS determined how many aircraft and crews it could offer to the relief effort without impacting student production—and in a worst-case scenario, how many aircraft it could provide by canceling all student training. “We had two solutions, and then of course there is somewhere in between, where we prioritized our student training lines, and said okay who absolutely needs to fly, who really does not need to fly that desperately, and we can prioritize so we know what lines we can pick off and take and convert them to a hurricane relief or evacuation mission.”⁶⁸

The AETC CAT offered these aircraft to Air Mobility Command’s Tanker Airlift Control Center (TACC), which handled airlift scheduling. Though AMC did task some of these aircraft a few days after the storm, initially the TACC was happy to turn over responsibility for the Keesler relief effort to AETC and the command’s internal assets. “Within hours of the hurricane hitting,” General Looney explained, “we had begun the recovery effort at Keesler.” After the JTF stood up, the command accommodated every request made by the TACC or the JFACC [Joint Force Air Component Commander] without difficulty,” General Looney continued, “because we had already moved what we needed in the early stages of the disaster.” Colonel Imondi, the CAT director in the first few days of the operation, added, “We would have CHOPed aircraft to the TACC if they had requested it.” Nineteenth Air Force kept the TACC apprised of the internal AETC missions, while directly tasking its wings to fly each sortie. Nevertheless, the pilots were eager to do all they could to help. “We did not get any official taskings for a couple of days after the hurricane struck,” Colonel Metzgar recalled. “We had crews setting Bravo alert; we identified which aircraft were ready to fly, and it was very frustrating to have to wait to be tasked.” After the conditions at Keesler became clearer, the AETC CAT was able to assign missions to these aircraft. Primarily, they evacuated students from Keesler in an operation described in the next section.⁶⁹

In order to minimize the impact of the relief operation on training production, the 58 AS prioritized their training missions and put aside administrative work to put pilots in the air. Colonel Metzgar explained:

When [the AETC CAT] finally asked what we could do, we offered up those solutions and said we can offer you two airplanes and two crews indefinitely without impacting student training. Yeah, it hurt the squadron because usually we have people in the offices that manage the offices during the day, but we said who cares if our paperwork is behind. There are people who are hungry, there are people who need medical attention, there are people who need to be evacuated. So we cleared out our office and said that those people are more important than our paperwork right now.⁷⁰

Because missions were flown at the end of the fiscal year, the flight commander, Maj Andrew G. Ratliff, carefully managed the remaining flying hour budget while flying the relief missions. But as Colonel Metzgar explained, the squadron was more than willing to fly more than its allotted hours. “The bottom line is that I am not going to wait until somebody who is sitting at the edge of the runway looking for shelter and food and say, ‘Oh, I am sorry. We are out of flying

hours this fiscal year, but wait until tomorrow; tomorrow is a new fiscal year, we can help you then.” General Looney accepted the potential training shortfalls, knowing the command could make up the lost time. He decided “to free up the assets we need in order to deliver the resources required at Keesler” and to assist hurricane victims in New Orleans.⁷¹

Other AETC Support

Luke deployed a total of 93 personnel to Keesler, reaching that number peak by 19 September. In addition to a group of 54 civil engineers who arrived on the evening of 4 September to assist with restoring base facilities, the Luke contingent comprised communications specialists, fuels and aircraft maintenance airmen, chaplain assistants, public affairs specialists, command post and services personnel, and paralegals, as well as a physician, nurse, medical technician, medical logistician, and three medical administration specialists. Many deployed as part of the 97 AEG in support of humanitarian relief operations. TSgt Stacy Garnes from the 56 FW Legal Office evaluated and documented damage and assisted military members in filing loss claims. Capt Brady Smith deployed as part of a public affairs contingent, serving the 97 AEG in that capacity.⁷²

Maxwell also contributed significantly to the recovery of Keesler and other military facilities in the affected area. On 30 August, within eight and a half hours of receiving the request for



With training operations suspended at Keesler and students evacuated, 400 Airmen stayed behind to clear the base of debris left in the wake of Hurricane Katrina's destructive path (USAF photo by MSgt Efrain Gonzalez).

assistance, a 13-member Security Forces team convoyed with two trucks carrying generators from the 908th Airlift Wing to assist with base security for Keesler. Normally a 4- or 5-hour trip, the convoy drove 13 hours to reach Keesler due to the devastation. Eleven other AU and 42 ABW personnel deployed in support of recovery operations. Finally, security forces personnel from Eglin AFB picked up the half-dozen inmates at the Keesler detention facility on 4 September.⁷³

The command also requested partial relief from AEF deployments for its security forces personnel. Citing the 81 TRW request for 143 additional SF troops to maintain security, while allowing personnel affected by the

disaster to put their personal affairs in order, and the need at Lackland for additional security forces to assure the safety of displaced persons and government property, the AETC vice commander, Lt Gen Dennis R. Larson, requested the Air Staff lower AETC's share of future AEF deployments from 20 to 15 percent of the remaining deployable security forces personnel. In addition, upon the request of the 81st Security Forces Squadron (SFS) through headquarters AETC, U.S. Central Command Air Forces released 28 personnel from pre-deployment training at Fort Dix. Another 18 security forces forward-deployed troops also returned to Keesler, 13 of which arrived in the U.S. on 8 September.⁷⁴

Evacuation of NPS Students

Decision to Evacuate

In addition to the assistance on its way to Keesler, large numbers of humanitarian relief workers arrived at the Mississippi base. Despite the significant damage, many key facilities, designed to withstand Category 5 winds and built on the relatively higher elevations on the base, were still habitable. Disaster response organizations quickly identified the base as a good location to serve storm victims in Biloxi, Gulfport, and other devastated coastal cities. U.S. Northern Command (USNORTHCOM) named Keesler an operational staging activity (OSA) on 2 September. In addition, the

Mississippi National Guard was considering basing 2,000 troops on base, and JTF-Katrina was considering another 2,000-3,000. In addition, General Lord recalled:

We knew that FEMA, the Red Cross, the FBI, the Georgia Bureau of Investigation, the State Police, of Indiana, the Mississippi Department of Environmental Protection, the Mississippi Forestry folks, all those folks, the Red Cross, all of them wanted to come and live on Keesler.

Knowing Keesler did not have sufficient billeting for all the forces potentially arriving, General Lord decided to evacuate the 1,500 or so NPS

students who had sheltered on base. “It was really to make room for those following forces that would be providing the humanitarian relief in the local area.”⁷⁵

Colonel Simmons explained that it was a conscious decision, not an act of desperation, to evacuate the NPS students. The training group initially wanted to keep 800 students at Keesler to assist with the recovery, but the wing headquarters reduced that number to 400, all males. “The real challenge,” Colonel Simmons explained, “was telling who was going to have to leave and who was going to stay. The kids that were told to leave did not want to leave. In fact there were kids crying because they did not want to leave, they wanted to stay and help.” When the students later returned to Keesler, Colonel Simmons recalled, the first question they asked was when they could go out on humanitarian missions. “So we have a bright future in the Air Force. These young kids, their hearts are exactly in the right place.” Chief Ellison agreed.

Most of these folks had only been in the Air Force for 8 weeks, but their sense of commitment and their willingness to stay and do whatever it took to clean up, because they had been through the storm and felt they were abandoning others when they needed help the most. That’s heartening. Because here are people whose biggest concern two or three

months ago was who to take to the prom. Now they're concerned about people they've never even met.

Half of the students who remained at Keesler were assigned to the base civil engineer to help clean up and restore the base. The other half assisted with humanitarian operations under the direction of the 81 TRW chaplain, a subject covered in Chapter 3.⁷⁶

Airlift of NPS Students

On Thursday, 1 September, the first day of the student evacuation, three C-17 flights evacuated 448 NPS students to Sheppard, leaving 658 at Keesler. A total of 950 were evacuated on Thursday and Friday. The last group of 124 left on Saturday.⁷⁷ At least one C-17 pilot, however, was frustrated at the pace of the evacuation.

Rather than the three days the operation took, Colonel Metzgar believed his squadron could have moved them out in a matter of hours. The C-17 was uniquely suited to flying into Keesler. It could carry several times as much cargo as a smaller C-130, which the 314th Airlift Wing also had placed on Bravo alert to fly relief missions, while operating on the same runway. "A C-17, in particular, is an airplane that is built on throughput. Throughput is a concept of taking as much cargo or people in and out of an area as possible with minimum ground time. So what you do is you set up a sequence of events where one airplane comes in and lands, you upload the

passengers, and take off. The next airplane comes in right behind them, lands, and uploads the passengers." Headquarters AETC, with different priorities, tightly controlled operations and kept the tempo much lower. "I felt like we trickled them out... it was very frustrating watching those people sit there, and they would send in one jet, then send one jet out." The AETC CAT, however, was facing an uncertain situation, which contributed to the delay. It initially had planned to evacuate all the TDY students by air, but they departed in their own vehicles. Furthermore, flying the students out of Keesler was not a desperate situation, because there was plenty of food and water available on the base.⁷⁸

One of the ways in which headquarters controlled operations was the concept of "floor loading" the C-17s, which allowed the aircraft to transport up to 240 students at a time by removing passenger seating. The one-hour flight was not likely to be particularly uncomfortable for the NPS students, who were typically 18 or 19 years old. Floor loading was an extraordinary operation, permitted only with MAJCOM approval.

On 1 September, the first day of the airlift, General Looney granted permission to floor load passengers. The risk was obviously worth the return of getting students off the base to make room for relief workers. The next morning, however, Colonel Imondi, the AETC CAT director, rescinded the authorization upon the recommendation of the Nineteenth Air Force

commander. His decision frustrated the operators, who, like everyone in the command, were anxious to do as much as possible to aid the Gulf Coast. “Here is what was funny,” Colonel Metzgar said, recalling the excitement of the day.

Colonel Imondi, in the 0800 [VTC] meeting, said floor loading was no longer authorized ‘unless a clear emergency exists.’ At this point I am [thinking], you got to be kidding me, dude; turn off Sponge Bob [a children’s TV program] and turn on the news. Take a look around. I would say this qualifies as a clear emergency. It looks like a nuclear disaster on the Gulf Coast, and you’re telling us ‘unless a clear emergency exists.’ I would say this qualifies. So that was frustrating. There were little things that frustrated me along the way.

The 24-hour news coverage had gripped the entire nation, and everyone, including the C-17 operators, wanted to do everything in their power to help. General Looney was at Andrews AFB at the time for the Air Force Chief of Staff’s retirement, and he had delegated authority over the CAT to Colonel Imondi. A C-17 pilot spoke with the commander of Air Mobility Command about the issue of floor loading, who spoke with General Looney, who directed Colonel Imondi to reverse his decision. “We got our



Students with the 332nd and 335th Training Squadrons prepare to be evacuated from Keesler AFB, Mississippi, to Sheppard AFB, Texas, aboard a C-17 Globemaster III from the 58th Airlift Squadron, Altus AFB, Oklahoma, 1 September 2005.

floor loading back, and it was good,” Colonel Metzgar recalled. General Looney later stated that floor loading was only necessary during the initial crisis, after which using seats in the aircraft “was the right decision.” In any event, the situation was not dire, and maximizing through-put was not the command’s highest priority.⁷⁹

Receiving Students at Sheppard AFB

Meanwhile, the 82nd Training Wing at Sheppard AFB was scrambling

to receive the students evacuating from Keesler. Planning for the event was fast-paced and duties were not always typical of an AETC base. Key personnel drew on their operational experience, however, and rose to the challenge. All hands pitched in, eager to help their fellow Airmen. "I had only been here four/five months and it gets a little different at an AETC base where your mission is training," Maj Bruce Gooch, 82nd Mission Support Squadron commander recalled. People responded enthusiastically to "having a real world situation dumped in their laps. Being able to do some thing totally out of the ordinary, something we are not used to doing everyday. Everyone jumped at that opportunity."⁸⁰

Planning began immediately. First, Sheppard would track the arrival and whereabouts of the Airmen and contact family members to report they were safe. Accountability meant getting an Airman's name, social security number, and rank, and knowing where they would be billeted. An information center provided concerned relatives information on how to contact the Airmen bedded down at Sheppard.⁸¹

The greatest challenge to planning was to determine when a flight would arrive. Maj Carrie Bausano, 82nd Logistics Readiness Squadron (LRS) commander, explained,

I think one of the biggest pieces missing initially from a planning stand-point was the timing of the arrivals of the aircraft. That information

was not readily available through normal channels, obviously because it was a crisis. In a normal planning environment, you could go to Gates, GTN or SMS² to find out that information, but in the crisis-mode even AETC wasn't certain about when some of the planes were moving. We were all flying in the dark. As the operation progressed we got better, but for the initial push out from Keesler AFB to here it was a little sporty.

To solve the problem, Major Bausano explained:

We tried to call as many avenues as we knew.... We even went back to the flying squadrons that were flying the missions to find out the exact aircraft commander to [ascertain] when they would be coming into our airfield, because that was the only way we were going to find out. We could then provide support for fuel, bus transportation and then the rest of the receiving.

TSgt Chris Chambers of the 82 LRS described the situation as hearing a flight "would be coming in at 6:15. No 6:30. No 6:45. No, it's here!"⁸³ Major Gooch explained that the squadron commanders stayed in constant communication with each other, and he praised the work of the 82 LRS. He

relied on Major Bausano's inside information in order to plan for arrivals.⁸⁴ Sergeant Chambers attributed the successful planning effort in no small part to Major Bausano's previous operational experience.

Accountability was another issue that required special attention. Major Gooch put CMSgt Cornell Turner, a highly regarded personnel specialist, in charge of accountability. "My goal for the reception center was to move students in and out quickly. These folks had been on an hour long plane ride, hadn't eaten or showered in maybe 14 or 16 hours. They didn't need me standing up and saying, 'Welcome to Sheppard.' I wanted the process to be as seamless as possible: to get them here, welcome them, and get them right back out the door for food, shower, and sleep." Though busses lined up at the door, Chief Turner put together a personnel accountability system that went quickly and smoothly. The inprocessing team at the reception center used Air Force Form 245 for accountability, inputting the information into a database. The wing provided numbers to AETC twice a day. The wing inprocessed 1,226 people, including a few families, TDY students, a Keesler Security Forces Airman on leave in Mississippi, as well as the non-prior service students.⁸⁵

In order to get the job done, Sheppard overcame a lack of personnel and expertise in loading and unloading heavy aircraft. Normally, heavy airlift operations occur out of Altus or another airfield. Sheppard was home to

two training wings, the 82nd Training Wing, and the 80th Flying Training Wing, which conducted the Euro-NATO Joint Jet Pilot Training (ENJJPT) program. Consequently, the airfield facilities and manning were designed to support small aircraft such as the T-37 and T-38 used in undergraduate pilot training, rather than the heavy transport aircraft bringing students from Keesler. In addition, the airfield had limited ramp space, and only a small portion could bear the weight of a C-17. The wing even had to be careful where it parked a smaller C-130.⁸⁶

Major Gooch thought about his deployment experiences to assemble a team and devise a list of priorities. "I have deployed a few times. The way I looked at it was to do an inverse of the way we send people out." The closest thing in regular Air Force procedures was a Noncombatant Evacuation Operation (NEO). "Normally you will see [a NEO] for folks or bases that have already been pre-identified for folks coming from overseas," Major Gooch explained. "I spent a year in Korea as part of the Seventh Air Force NEO Team and we had a huge plan for getting folks off the peninsula." Following the outline of a NEO, Major Gooch assembled the same organizations that were important in a deployment, figuring they would be as important in receiving Airmen. Though the precise arrival schedule was not certain, "we knew the maximum number of passengers floor-loaded on a C-17. So, we knew how big we need to make our initial reception center."⁸⁷



Evacuees at Maxwell AFB, Alabama, look over the latest Hurricane Katrina information on 1 September 2005. Hurricane refugees from flooded coastal regions made their way here to escape the destruction on the Gulf Coast (USAF photo by MSgt Jack Braden).

The process resembled a deployment line in reverse. Once students arrived, they received “a couple of quick briefings,” and were sent to the dining facilities, Major Gooch explained. “Once they finished eating, they would come back to the reception center to pick up their duffle bags.” Next, the Military Training Leaders (MTLs), who played a key role in getting the students from one place to another, made sure they found their assigned dorm rooms to shower and rest. The wing followed this process throughout the three-day evacuation.⁸⁸

The evacuees included a military dependent and her infant child. The couple’s home, possessions, and auto-

mobile had been destroyed. The military member, a Senior Airman, had to remain on Keesler to fulfill his duties there, but the family’s relatives lived in the Oklahoma City area. The Airman asked CMSgt Robert A. Walker, who deployed to Keesler from Altus, for help. Chief Walker made sure they got on a C-17 bound for Altus AFB.⁸⁹ Colonel Metzgar explained their evacuation in a way that neatly summed up the operation from an operator’s perspective.

We made a difference in someone’s life. That is why we exist—to make a positive difference in people’s life. I think that is consistent with

*our national strategic objectives. We are trying to make a difference in the lives of the people in Afghanistan and Iraq, and we are trying to make a positive difference in the lives of the people in our own country. That was another thing that was really weird about this. I have flown combat missions and relief missions all over the world; all of the people in the 58th [Airlift Squadron] have done that—the whole wing for that matter. It was really weird doing it in your own back yard.*⁹⁰

Life at Sheppard for the NPS students is discussed in Chapter 4.

Evacuation to Maxwell AFB

Evacuees

A total of 1,023 active duty, dependent, and civilian DoD employees evacuated to Maxwell AFB from the hurricane-ravaged areas. This included five members of Air Force Reserve Officer Training Corps Detachment 320, housed at Maxwell after Tulane University closed in New Orleans, and 85 personnel and dependents from the 313th Training Squadron, at Corry Naval Station. In addition, Maxwell provided shelter, medical care, and coordinated follow-on transportation for about 60 senior veterans and staff evacuating from the Armed Forces Veterans Hospital in Gulfport, Missis-

issippi, and arriving unannounced at Maxwell at three o'clock in the morning. Many showed up with no medical records, needing assistance with medicines and medical treatment. The 42 ABW opened the base gym to the veterans, who received medical attention before most departed on 1 September for the Washington, D.C., area, on airlift the 42 ABW coordinated with the 908th Airlift Wing. Three retirees transferred to local hospitals. Over 300 families offered to house evacuees from coastal installations as part of the Adopt-a-Family program. Finally, Maxwell provided shelter and veterinary care to the pets of displaced Air Force members.⁹¹

In past evacuations, Maxwell had established a reception point at an entrance to the base. For Katrina, the wing established a “mini-military personnel flight” at base lodging, which became the inprocessing center. The center included financial and legal assistance for people arriving with no ready money or possessions. “One thing you have to understand,” Col Paul McGillicuddy, the 42 ABW vice commander, emphasized, “was that processing the refugees was not an easy thing to plan. People were showing up 24 hours a day without warning.” Refugees were billeted first in available on-base lodging, contract lodging (e.g., off-base hotels), adopt-a-families, and, only as a last resort, the shelters on base. Sixty-one pets were adopted and accounted for. “When you’re reaching out and saving the pets of the families,” Colonel McGillicuddy observed, “you’ve got the other necessities cov-

ered.” The work was fast-paced and complicated, he explained, and the 42 ABW relied on the daily CAT meeting with AETC to address issues it couldn’t resolve locally.

Some of the evacuees were students, their families, and individuals who have never been in the Air Force before, except for their time at Keesler, and now they’re showing up with wives, kids, pregnant wives, and pets, and they have nothing. And, by the way, their marching orders were clear, but by the time they relay them to you [at Maxwell], they aren’t so clear. That’s what the VTCs were straightening up, was what are we going to do with some of these guys. Are we going to hold onto them, then send them back to Keesler, or are we going to send them to Sheppard? With several of them, right there in the gym, we took them through a processing line and shipped them overseas. So they showed up at Maxwell with nothing, and we gave them airplane tickets and orders right here and sent them to Spangdahlem [Air Base, Germany].⁹²

As the demand on services increased, the wing deployed 13 members of the Security Forces and their deputy Medical Group commander to Louisiana. “It was definitely

a 100 percent team effort,” Lt Col Stephen Estock, director of plans, recalled. Air Command and Staff College provided a bank of laptop computers for evacuees, and the international officer school handled evacuating international students and their families. Finally, TDY students at Keesler convoyed to Maxwell, refueled, and dispersed to their home stations.⁹³

International Officers

The arrival and processing of international officers and their families provided an interesting example of the challenges of handling evacuees. At 1400 hours on 1 September, AU received a call informing them 41 international officers and their 27 dependents were on their way from Keesler on a C-130 flight. The director of international affairs at AU, Colonel John Ide, met with a crisis team to plan the operation. There were contingency plans for international officers to arrive at Maxwell with a few days’ lead time; for example, if the schoolhouse had to close for some reason and the students needed to continue training at Maxwell. International officers finishing Defense Language Institute courses early normally went to Maxwell. But the plans did not account for a sudden evacuation of all students and their families. The crisis team arranged for transportation from the flight line, dining, and lodging, which was inundated with evacuees. Before their arrival, the Air Force Security Assistance Training (AFSAT) Squadron at Randolph AFB had decided the students would return to their home countries. Therefore, an

inprocessing line was established to provide the documents the students would need to authorize and facilitate their return to their country of origin, such as their invitational travel orders (which authorized them to be in the U.S.). The biggest problem initially was that they were able to bring a large amount of luggage on the C-130, which had to make its way to lodging. The next day, Capt Bobby Roper, the officer in charge, and his staff were responsible for making arrangements for the officers to return home.⁹⁴

Like all the evacuees arriving at Maxwell, each international officer had individual circumstances. Some were unable to bring their invitational travel orders with them from Keesler, and new copies had to be obtained through AFSAT from security assistance officers in the officer's home country. Some of the officers had been in the U.S. for so short a time that they hadn't been paid, and arrangements had to be made to pay them, a process that was much easier done before they left the country. Others needed access to their bank accounts or replacement identification cards, and all were concerned about the disposition of possessions they left behind at Keesler. The first officers left as soon as the day after their arrival at Maxwell.⁹⁵

Each officer received personal attention, and a grateful senior non-commissioned officer from Kuwait gave Captain Roper a set of prayer beads as a token of his appreciation. "I can't accept that," Captain Roper protested, "because you'd do the same

thing for me if I were in your country. That's thanks enough for me." The Kuwaiti NCO insisted, saying, "You probably don't know what you've done for me and the rest of the people who were here from my country."⁹⁶

Columbus Air Force Base

Like the other Gulf Coast bases, the 14th Flying Training Wing either evacuated its aircraft out of harm's way or parked them in hangars until the hurricane had passed. Though the eye of Hurricane Katrina had passed within 4 miles of the base, its winds had diminished to 50 knots and damaged only roofs and trees. Initial damage estimates were under \$800,000.⁹⁷

Columbus also welcomed evacuees at its Evacuee Service Center, located in the Community Activities Center. On hand were food, donated clothing and supplies, and a staff to assist Air Force members and their families. The 14 FTW also deployed four personnel to Keesler, including two in personnel accountability specialists, one claims processor, and one mental health counselor.⁹⁸

Personnel Accountability

Accountability emerged as a challenge throughout the hurricane preparation, evacuation, and initial recovery effort. The weekend recall complicated the task of accounting for personnel who sheltered off base or evacuated from the local area.⁹⁹ The change in direction of the storm,



Cleanup efforts underway on 31 August 2005 at Columbus AFB, Mississippi, in the wake of Hurricane Katrina. The base sustained more than \$765,000 in damage (USAF photo by 2nd Lt Jeremy Cotton).

which had been expected to make landfall on the Florida panhandle, decreased the time available to contact everyone. As of Thursday, Keesler personnel believed they would have the weekend free and not have to deal with the results of the storm until Monday. The Unit Control Centers stood up on Friday and initiated a recall to contact all base personnel in order to relay the order to evacuate and to provide reporting instructions. The wing was on an alternate work schedule, under which employees worked longer hours but had every other Friday off, and 26 August was a down day, which complicated the telephone recall.¹⁰⁰

The primary difficulty was accounting for DoD civilian employees and non-appropriated fund (NAF) personnel, who sheltered in the local community or evacuated to a safe haven. The permanent party instructors had the most difficult time accounting for DoD civilians. Obviously the issue was important to commanders at Keesler as well as to higher headquarters.¹⁰¹

The fact that so many communications to the area were disabled exacerbated the problem. MSgt Will Hardesty, superintendent of Keesler Current Operations at Second Air Force, evacuated to Georgia and spent several days trying to find out what had happened on the base and to con-

tact his UCC representative. "After about the first 4-5 hours, I think, it was virtually impossible, for about three or four days, to actually get in touch with anyone here." The wing had a reporting plan and people to answer the phones, but the phones did not work. Cell phones with an area code in the disaster area rarely could place a call, if at all. He was finally able to contact the CAT at about 0200. "I finally got through and said I made it here safe." Their reply was, "Okay, thank you. Get off the phone now."¹⁰²

Other communications systems ended up facilitating accountability. "Some of [the evacuees] finally figured out if they called a military base that they could connect them to us via DSN," MSgt Stephan Ellis, Second Air Force, explained. "The Keesler base web site and text messaging on cell phones were our fall back methods for communication, and I think if we had a lesson learned, it would include those in some of the instructions we give our people before they evacuate. One of the things that we never thought of was having people, when they evacuated, call local military installations and DSN back. It was just not anything that we had ever envisioned."¹⁰³

The command had no process for accounting for non-appropriated funds personnel, and the 81 TRW spent three weeks accounting for all 464 NAF employees. The employees were not scattered to the wind, however. As many as 79 were employed at Keesler to fill positions left vacant by appropriated funds personnel unable to return

to work, under the provisions of a memorandum of agreement between the 81 TRW Comptroller and Mission Support Group. This unusual arrangement allowed the wing not only to restore many Morale, Welfare, and Recreation (MWR) activities that had been suspended after the storm, but also to continue to offer employment to valuable Keesler personnel.¹⁰⁴

Uniformed members of the Air Force Reserve also created problems for the accountability system. According to Col Ron Farris, the AETC reserve affairs coordinator, the reserve coordinator at Keesler was on emergency leave when the storm hit, and the task of accounting for reserve students fell in part to Sheppard. The command lacked an efficient means of tracking student egress and ingress and documented student status either by hand or by massaging data in the active-duty student tracking system. Moreover, reserve students attended classes under a different travel authority than active-duty students, and the issue of how to pay reservists who were no longer in training arose. The command debated whether to keep the students on orders for a short time to see if their courses would resume (see Chapter 2). About 90 percent of these students were evacuated to Sheppard, but it took a week or two for the command to verify the whereabouts of the remaining 10 percent.¹⁰⁵

General Looney, reflecting on the challenges, believed the command had done a reasonable job of accounting for



A patient evacuated from Keesler AFB, Mississippi, in the wake of Hurricane Katrina is unloaded at Lackland AFB, Texas, from a C-17 Globemaster III on 30 August 2005. Her medical care will be continued at Wilford Hall Medical Center. The aircrew is from the Mississippi Air National Guard (USAF photo by Senior Airman Heather M. Norris).

its people. The CAT received calls from majors and lieutenant colonels asking ‘where are those people, why have you not tracked them down?’” he recalled. “I think we need to put it in perspective.”

If you look at the percentage of people who were unaccounted for, it is a single digit number, and a low one. Sometimes that is not a good answer to the folks that are up at the Air Staff or wherever [to the question], ‘How come we don’t know where this individual is?’ Well [if] you have 10,000 and you know where 9,999 are, how screwed up is your system? Probably not very.

While it was important to know that every employee, including the NAF employees, was safe, General Looney believed that it was not essential to expend the resources necessary to account for the last few people. Nevertheless, AETC refined its accountability procedures to improve its effort to account for everyone.¹⁰⁶

Medical Aid to Keesler AFB

Keesler Medical Center

As previously discussed, the storm surge had rendered the Keesler Medical Center inoperable. The damage to the power generation and distribution system, all lost when the basement flooded, rendered the hospital unable to treat patients under reasonable conditions. On the morning of 30 August,

the 59th Medical Wing at Wilford Hall activated its Medical Control Center to support its Critical Care Air Transport Teams (CCATT), which evacuated patients by air from Keesler.¹⁰⁷ The day after the storm, therefore, 35 seriously ill hospital patients air evacuated out of Keesler, as well as several pregnant women who were close to going into labor. Other patients evacuated over the next several days and weeks by ground transportation to Eglin AFB.¹⁰⁸

The directorate of Medical Services and Training joined the AETC CAT on Monday, 29 August, and the level of activity in coordinating with many agencies, including the HQ USAF Medical Operations Center, HQ USAF Medical CAT, NORTHCOM, JTF-Katrina, and AETC Medical Treatment Facilities (MTFs) increased rapidly, peaking around 4 September. The AETC medical community faced several tasks in the immediate aftermath of the hurricane. At Keesler, patients had to be evacuated from the disabled medical facility, and the team had to restore a medical care facility for the base while preparing to support the federal response to hurricane victims. Finally, evacuees from Keesler, as well as their dependents, required continued access to medical care. Medical personnel throughout the command began to respond immediately.¹⁰⁹

The 81st Medical Group needed to reestablish a medical facility, not only to meet the needs of its own personnel as they reconstituted the base, but also to serve personnel from FEMA and other relief organizations that were to

use the base as a staging area. In order to meet this requirement, the 81st Medical Group requested to use some of its war readiness material, namely an Expeditionary Medical Support (EMEDS)+10, essentially a ten-bed air-transportable field hospital. After obtaining Air Force permission, the group erected the EMEDS tents in a parking lot across the street from the hospital.¹¹⁰ The emergency room relocated to the EMEDS on 4 September.¹¹¹

82nd EMEDS

An AETC team led by personnel from Sheppard AFB deployed in order to relieve the Keesler medics, who themselves were victims of the storm. Approximately half of the Keesler medical personnel had lost all or some of their possessions.¹¹² The medical facilities at Sheppard, meanwhile, had been fully involved in the Katrina response from the first days after the storm hit. As Airmen arrived from Keesler AFB, the medical team at Sheppard screened them as they were brought into the Airmen's Club and saw to their medical needs.¹¹³ On Friday, 2 September 2005, headquarters AETC sent a message to all wings requesting information on how the command might staff an EMEDS+10. That evening, however, headquarters informed Sheppard that the Air Expeditionary Force (AEF) Center out of Langley AFB would probably assume responsibility for working the rotations and assignments.¹¹⁴ This changed, however, and the tasking returned to HQ AETC on Saturday.



The 82nd Expeditionary Medical Support (EMEDS) unit, deployed to Keesler AFB, Mississippi, resembled a deployed operating location in some ways, though it stood in a parking lot near the disabled Keesler Medical Center. In another departure from the typical deployed environment, critical patients could be transported by ambulance to regional hospitals that had survived the storm.

The responsibility to run the EMEDS fell to Colonel Michael Miller, 82nd Medical Group commander, Sheppard AFB. As the command's third-largest medical center, Sheppard got the call because Lackland's Wilford Hall Medical Center was fully engaged and Keesler's, the second-largest, was out of commission. Colonel Miller recalled that he "never dreamed that I would deploy to run an EMEDS within CONUS. But we did."¹¹⁵

The EMEDS+10 that stood up at Keesler deviated from the standard ca-

pabilities and complement in order to optimize its staff to provide primary care, more suited for the mission it would fulfill at Keesler.¹¹⁶ In considering the tasking, Miller determined the standard EMEDS+10 staff should be modified to enhance its ability to provide comprehensive primary care. Normally, an EMEDS+10 had surgical and inpatient capability, but local hospitals in the Keesler area remained able to operate and receive patients on some levels. Keesler was therefore able to transfer inpatient cases to local hospitals or evacuate them by air to medical

facilities, such as Wilford Hall Medical Center, elsewhere. The assigned personnel differed from a normal 56-member EMEDS+10 contingent, including, for example, a dentist normally only available in a 25-bed EMEDS.¹¹⁷ Headquarters approved the request. "We took several hours on Saturday to figure out how we would maximize support and minimize impact on the mission at Sheppard AFB," Colonel Miller recalled. "I was in constant contact with the medical services and training (SG) side of Command. On Sunday I talked with them again, our team finalizing things after they made some decisions." Having established the manning requirement for the EMEDS+10, the next step was to find the personnel to staff it.

The command's medics responded to the short-notice deployment with alacrity. Colonel Miller had sent everyone home who wasn't scheduled to screen the evacuating Keesler students and who wasn't on their normal duty rotation. "It was a three day weekend and I decided to not put people on telephone standby because we had things covered. Saturday morning I was working and I got a call from the command [AETC] saying it was back on." He called in the senior medical staff to plan the operation.

I brought in my executive staff and asked how we could maximize support to Keesler AFB because we didn't have but a couple of AFSCs, and minimize our impact on operations at Sheppard AFB

because we had to continue our mission here. Also, at that time we only had 35 people due to the war in Iraq and [Afghanistan]. So, we went position-by-position. We knew what we had and what we didn't have.

Colonel Miller called Col Kimberly A. Siniscalchi, 882nd Training Group commander, requesting help to fill as many as the 56 positions as possible.

Now, Sunday afternoon we didn't start making calls to the people who were going until about three o'clock. By six o'clock we had a meeting with 90 percent of the people here, and by ten o'clock everyone who was going was notified. Now, six of them were on leave either within the local area or returning from leave. One even came back from San Francisco, California. We contacted him on his cell phone and he hurried to get home. We had people raising their hands left and right wanting to help, but we had to personally select people to go and personally select people to stay to continue the mission at Sheppard AFB. This was a balance that we needed to achieve.

Though it was Labor Day, Sheppard provided assistance. On Tuesday morning the team loaded onto a C-130.¹¹⁸



Medics deploying from Sheppard AFB, Texas, as part of the 82nd Expeditionary Medical Support (EMEDS) unit, board a C-130 from the 314th Airlift Wing at Little Rock AFB, Arkansas. Air Education and Training Command deployed many of its own personnel on airlift assets assigned to the command.

Colonel Miller also contacted headquarters AETC, which gave them permission on Sunday afternoon to request help from Luke and Vance AFBs. One person drove to Sheppard from Vance AFB and deployed with the group on Tuesday. Seven medical personnel deployed from Luke AFB on extremely short notice. Col Schuyler Geller, commander of the 56th Medical Group, called the personnel, who were on mobility status, presumably with their bags packed and ready to go, and directed them to board a waiting C-130 within two hours. All were on the plane when it departed. The group landed at 1300 on Tuesday. Colonel Miller, exhausted from the NPS student evacuation, recalled the aircraft

taxiing but slept through takeoff and while the plane landed to pick up six firefighters from Randolph AFB. “The next thing I knew, they were waking me up to see the damage of the Gulf Coast. They put us up in billeting through Services, which was actually better than what we thought,” Colonel Miller recalled. “We were ready to sleep in tents.” By 1500 he met with General Dougherty and his executive staff. After a two-day orientation, the Sheppard contingent took over the EMEDS operation on Friday, 9 September, and continued the operation for 18 days.¹¹⁹

Though officially considered a temporary duty (TDY) assignment, the

EMEDS resembled a deployed location, though with some striking differences. Resupply was easier than at a remote overseas location, and serious cases could transfer to regional hospitals. The medics also treated some non-essential personnel who gained access to the facility, including active-duty, dependents, and retirees, which added unplanned numbers to the patient load. Between 9 and 26 September, the EMEDS at Keesler treated 1,075 patients.¹²⁰

The experience was very positive for the EMEDS personnel, both personally and professionally. The Keesler folks were obviously grateful to have relief and a chance to sort out often difficult personal situations, and the deployed medics from Sheppard, Vance, and Tinker AFBs were “thrilled” to be able to help. All the same, the deployed medics marveled at the self-sacrifice of the Keesler personnel. “The amount of selfless support received by Keesler personnel was amazing and truly humbling. Many individuals wanted to work and help get medical processes back on track despite their own losses.” The Air Force core value “Service before self,” the after action report stated, was “rampant” among Keesler personnel. All involved gained hands-on experience in applying their EMEDS training to what was essentially a deployed location.¹²¹

HQ Second Air Force Relocation

In the first days of the relief operation, General Looney directed his directorate of plans and program to assess possible sites to relocate HQ Second Air Force for up to 18 months. Of the three locations considered, Lackland, Sheppard, and Goodfellow AFBs, only the latter had the 10,000 square feet of contiguous space required to accommodate the headquarters in the near term. The 17th Training Wing at Goodfellow AFB had just completed construction on a new headquarters building, and though the old building was slated for demolition, it could provide the necessary space and infrastructure to house a headquarters temporarily. The greatest obstacle would have been the cost of housing, since most of the arriving personnel would have been housed off-base. By two weeks after the storm, however, the Second Air Force headquarters building was habitable and operational, with power, phone, and computer connections restored. General Utterback therefore maintained that the proposed move was unnecessary, and General Looney ordered work on the proposal to cease.¹²² In the end, General Utterback only gave up his authority in all matters requiring his action as the General Court-Martial Convening Authority for Second Air Force, to the Commander, Nineteenth Air Force, on the order of General Looney, effective 8 September. The brief transfer lasted only until 20 September.¹²³

Conclusion

Hurricane Katrina caused significant damage to Keesler AFB but did not prevent the 81 TRW from recovering. As the least-damaged major facility on the Mississippi Gulf Coast, Keesler was destined to become a hub of relief activity. Headquarters AETC and the command's wings coordinated an airlift of supplies and personnel to help Keesler prepare for an influx of humanitarian aid workers soon to descend on the base.

While operations did not go as smoothly as many personnel, eager to help their comrades and fellow citizens, would have liked, aid arrived at Keesler. The decision in the 1990s to posture AETC instructors in the AEF rotation and to move graduate flying training, with its concomitant operational aircraft like the C-130 and C-17, meant that AETC personnel command could rely on extensive operational experience to accomplish an extraordinary mission.

General Looney, reflecting on the command's response, emphasized this point.

We are a very operationally savvy command, because the vast majority of our folks have been there, done that, and done it recently. Therefore we are made up of a lot of individuals who have had to deal with expeditionary situations and are faced with

unique challenges... [and] figure out how to come up with solutions or work-arounds or whatever is required to [solve the problem].

The changes at AETC, particularly since the early 1990s, had paid off. General Looney continued:

If we would have faced this [disaster] 20-30 years ago, when the command was more focused on in-house training and people staying in the command forever, it might have been quite a shock to the command to have to deal with something of this magnitude.¹²⁴

Personnel throughout the command volunteered to work long hours and, in many cases, to deploy to the hurricane-ravaged area. The command only sent a fraction of the personnel who volunteered.

¹ Website, U.S. Department of Commerce, National Climatic Data Center (NCDC), "Climate of 2005: Summary of Hurricane Katrina," 29 Dec 05, from <http://www.ncdc.noaa.gov/oa/climate/research/2005/katrina.html>, accessed 1 Feb 06.

² BBP, Maj Marc Caudill, AETC/DOXP, "AETC Hurricane Operating Guidelines," 1 Aug 05. The AETC 401 Plan for disaster response was in draft form at the time of Hurricane Katrina.

³ Intvw, Dr Bruce Ashcroft, AETC/HO, with Lt Col Dale G. King, 81 TRSS/CC, Maj Anthony B. Williams, 332 TRS/CC, Lt

Col Elia P. Sanjume, 335 TRS/CC, Lt Col Monica Kopf, 336 TRS/CC, and Lt Col Christopher C. Cook, 338 TRS/CC, 3 Nov 05.

⁴ Intvw, Ashcroft and George Cully, AF/HSO, with Brig Gen William Lord, 81 TRW/CC, 2 Nov 05; Intvw, Ashcroft, with Lt Col King, *et al.*; Intvw, Ashcroft with Maj Jeffrey Szatanek, Wes Toche, and Brian Drake, 81 CES, 2 Nov 05.

⁵ Ironically, an even lower barometric pressure was recorded in Hurricane Rita, less than a month later.

⁶ RED HORSE was a much-needed acronym for “Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer,” a unit with the heavy equipment necessary to undertake the repair of heavily damaged facilities (Keesler Daily News, 9 Sep 05).

⁷ Intvw, Ashcroft with Maj Szatanek, *et al.*

⁸ For a complete history of operational orders related to hurricanes Katrina and Rita, see Hist (FOUO), MSgt Robert W. Spiers, *et al.*, “History of Joint Task Force—Katrina, Joint Forces Air Component Commander (U), Aug–Oct 05,” 19 Oct 05, information used is not FOUO.

⁹ Intvw, Ashcroft with Brig Gen Lord.

¹⁰ Intvw, Ashcroft with Col Robert F. Simmons, 2 AF/DO, Capt John W. Sims, 2 AF/DOT, Capt Charles A. Rice, 2 AF/DOV, MSgt Stephan B. Ellis, 2 AF/DOOV, MSgt William D. Hardesty, 2 AF/DOOK, 4 Nov 05.

¹¹ Intvw, Ashcroft with Brig Gen Lord.

¹² (FOUO) 42 ABW, “Maxwell AFB CAT Directive #05—02-02, Hurricane Katrina,” 26 Aug 05, information used is not FOUO.

¹³ Intvw, Dr Joseph Mason, AETC/HO, with Col Paul McGillicuddy, 42 ABW/CV, Lt Col Stephen Estock, 42 ABW/XP, Teri Baker, 42 ABW/XP, 20 Oct 05.

¹⁴ Intvw, Mason with General William R. Looney III, AETC/CC, 13 Feb 05.

¹⁵ Intvw, Richard Emmons, AETC/HO, with Col Anthony Imondi, AETC/DOF, ca. 1 Dec 05.

¹⁶ Intvw, Ashcroft with Maj Szatanek, *et al.*; Intvw, Mason with Col McGillicuddy, *et al.*; Intvw, Mason with General Looney.

¹⁷ Intvw, Ashcroft with Brig Gen Lord.

¹⁸ *Ibid.*

¹⁹ 81 TRW, CAT-Directive No. 4, “Hurricane Katrina—General Information,” 27 Aug 05.

²⁰ Intvw, Ashcroft with Maj Szatanek, *et al.*

²¹ Intvw, Ashcroft with Brig Gen (Dr) James J. Dougherty, 81 MDG/CC, 3 Nov 05.

²² *Ibid.*

²³ *Ibid.*

²⁴ Intvw, Ashcroft with Capt Rice, *et al.*

²⁵ SITREP, 2 AF, 28 Aug 05.

²⁶ Intvw, Ashcroft with Brig Gen Lord.

²⁷ Disc, Mason with John F Chiamonte, AETC/CEVA, 8 Dec 05; Intvw, Ashcroft with Maj Szatanek, *et al.*; Intvw, Ashcroft with Brig Gen Lord.

²⁸ *Ibid.*

²⁹ NCDC, “Summary of Hurricane Katrina,” 29 Dec 05.

³⁰ Intvw, Ashcroft with Col Simmons, *et al.*

³¹ Intvw, Ashcroft with Col Simmons, *et al.*; Article, Susan Griggs, 81 TRW/PA, “CE personnel brave Katrina’s winds in big rescue,” Katrina Daily News, 7 Sep 05.

³² Intvw, Ashcroft with Brig Gen Dougherty.

³³ *Ibid.*

³⁴ *Ibid.*

³⁵ *Ibid.*

³⁶ Intvw, Ashcroft with Lt Col Dale G. King, 81 TRSS/CC, Maj Anthony B. Williams, 332 TRS/CC, Lt Col Elia P. Sanjume,

335 TRS/CC, Lt Col Monica Kopf, 336 TRS/CC, Lt Col Christopher C. Cook, 338 TRS/CC, 3 Nov 05.

³⁷ Intvw, Ashcroft with Brig Gen Dougherty.

³⁸ *Ibid.*

³⁹ Disc, Mason with Les Coalson, AETC/SV, 7 Apr 06.

⁴⁰ Intvw, Ashcroft with Maj Jeffrey Szatanek.

⁴¹ Rpt, Col Douglas C. Hayner, 81 TRW/CV, "Questions," 14 Dec 05; Intvw, Ashcroft with Brig Gen Dougherty.

⁴² *Ibid.*

⁴³ As quoted in Katrina Daily News, 2 Sep 05.

⁴⁴ Intvw, Mason with General Looney.

⁴⁵ Intvw, Mason with CMSgt Rodney Ellison, AETC/CCC, 6 Feb 06.

⁴⁶ *Ibid.*

⁴⁷ Intvw, Ashcroft with Col Simmons, *et al.*

⁴⁸ AETC, SITREP 001, 31 Aug 05.

⁴⁹ AETC, SITREP 001, 31 Aug 05; AETC, SITREP 002, 1 Sep 05.

⁵⁰ Intvw, Ashcroft with Col Simmons, *et al.*

⁵¹ Notes, Mason, CAT Level II meeting, 3 Sep 05.

⁵² Email, Col Jennifer L Pickett, 571 CRG/CC, to Mason, "RE: 571 CRG history," 22 Feb 06.

⁵³ Disc, Mason with SMSgt Darrell King, 83 CS/SCM, 2 Jun 06.

⁵⁴ Intvw, Ashcroft with Col Simmons, *et al.*, Disc, Mason with SMSgt King.

⁵⁵ Intvw, Ashcroft with Col Simmons, *et al.*

⁵⁶ Disc, Mason with SMSgt King.

⁵⁷ *Ibid.*

⁵⁸ AETC, SITREP 001, 31 Aug 05; Intvw, Ashcroft with Col Simmons, *et al.*; Disc, Mason with SMSgt King.

⁵⁹ Intvw, Ashcroft with Col Simmons, *et al.*

⁶⁰ Intvw, Ashcroft with Col Simmons, *et al.*; AETC, SITREP 001, 31 Aug 05.

⁶¹ Intvw, Ashcroft with Maj Szatanek, *et al.*; Email, Coalson to Ashcroft, *et al.*, "Katrina-Keesler History," 7 Apr 06.

⁶² Intvw, Ashcroft with Col Simmons, *et al.*

⁶³ Intvw, Mason with General Looney; AETC, SITREP 007, 6 Sep 05.

⁶⁴ Disc, Mason with Les Coalson, AETC/SV, 7 Apr 06.

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*

⁶⁷ Article, 16 SOW, "RED HORSE aids Keesler," *Commando* vol. 54, no. 32, 9 Sep 05; Article, 81 TRW, "RED HORSE team saddles up for Keesler restoration ops," *Katrina Daily News* vol. 1, no.9, 9 Sep 05; Article, USAF, "RED HORSE to the rescue," Air Force Print News release no. 030905, 1 Sep 05; Intvw, Ashcroft with Maj Szatanek, *et al.*

⁶⁸ Intvw, Ann Hussey, AETC/HO, with Lt Col Tal Metzgar, 58 AS/CC, 2 Nov 05.

⁶⁹ Intvw, Mason with General Looney; Disc, Mason with Col Imondi, 28 Feb 06; Intvw, Hussey with Lt Col Metzgar.

⁷⁰ Intvw, Hussey with Lt Col Metzgar.

⁷¹ Intvw, Hussey with Lt Col Metzgar; Intvw, Mason with General Looney.

⁷² Hist, 56 FW, 1 Jan-31 Dec 05; Intvw, Mason with Capt Brady Smith, 56 FW/PA, 14 Dec 05; for more information on the deployment of Luke's civil engineers to Keesler, see Chapter 5.

⁷³ Email, SMSgt Samuel S. Meta, AFSFC/SFC to MSgt Lisa M. Frantz, AETC/SFI, *et al.*, "RE: Emailing: Inmates status report.xls," 3 Sep 05 (SF/ RE: Emailing: Inmates status report.xls).

⁷⁴ Email, Lt Col Harry R Kimberly, AETC/SFD, to Col Richard P Mihalik, AETC/DS, *et al.*, "SF AEF Wavier (sic) Request," 7 Sep 05, w/atc: "SF AEF Wavier (sic) Request," 7 Sep 05 (SF AEF Wavier Request); Email, Lt Col Robert W. Roth,

37 SFS/CC to Lt Col Harry R Kimberly, AETC/SFD, "37 SFS Operations Order for KellyUSA Security," 14 Sep 05, w/atch: Msg, AETC/CV to AF/XO, "(U) AETC Security Forces AEF Taskings," n.d. (SF/37 SFS Operations Order); Email, James Q Butler, AETC/DOXP to Col Richard P Mihalik, AETC/DS, "AETC SF request for relief from AEF," 3 Sep 05; Email, Lt Col Kimberly to Maj Cody W Barker, AETC/DOXO, *et al.*, "RE: Keesler taskings...28 from Dix Need to be Released," 1 Sep 05; Email, Lt Col Harry R Kimberly, AETC/SFD to AETC/SF ALL, *et al.*, "Manning Updates for Lackland and Keesler due to Hurricane Katrina," 9 Sep 05.

⁷⁵ Intvw, Ashcroft with Brig Gen Lord; Hist (FOUO), MSgt Spiers, *et al.*, "History of Joint Task Force—Katrina," 19 Oct 05, information used is not FOUO.

⁷⁶ Intvw, Ashcroft with Brig Gen Lord; Intvw, Ashcroft with Col Simmons, *et al.*; Intvw, Mason with CMSgt Ellison.

⁷⁷ AETC, SITREP 002, 3 Sep 05.

⁷⁸ Disc, Mason with Col Imondi; Intvw, Hussey with Lt Col Metzgar.

⁷⁹ Intvw, Hussey with Lt Col Metzgar; Intvw, Mason with General Looney; Disc, Mason, with Col Imondi.

⁸⁰ Intvw, Ashcroft with Maj Bruce Gooch, 82 MSS/CC, 9 Nov 05.

⁸¹ *Ibid.*

⁸² AMC mission tracking systems.

⁸³ Intvw, Ashcroft with Maj Carrie J. Bausano, 82 LRS/CC, and Noel Leiner, CMSgt Cornell Turner, and James Simons, 82 LRS, 8 Nov 05.

⁸⁴ Intvw, Ashcroft with Maj Gooch.

⁸⁵ *Ibid.*

⁸⁶ Intvw, Ashcroft with Maj Bausano, *et al.*

⁸⁷ Intvw, Ashcroft with Maj Gooch.

⁸⁸ *Ibid.*

⁸⁹ Intvw, Hussey with CMSgt Robert A. Walker, 97 MSG, 2 Nov 05.

⁹⁰ Intvw, Hussey with Lt Col Metzgar.

⁹¹ Intvw, Mason with Col McGillicuddy, *et al.*; Rpt, 42 ABW/XP, "Maxwell Support for Hurricane Katrina," n.d.; Article, Carl Bergquist, AU/PA, "Maxwell hosts elderly evacuees," n.d.

⁹² Intvw, Mason with Col McGillicuddy, *et al.*; Article, Carl Bergquist, AU/PA, "Volunteers help evacuees," Dispatch, n.d.; Article, Bergquist, "Maxwell/Gunter members adopt displaced persons," Dispatch, n.d.; Article, Bergquist, "Base members house displaced persons," n.d.

⁹³ Intvw, Mason with Col McGillicuddy, *et al.*; Intvw, Emmons with Col Imondi; Article, Bergquist, "SFS Team," Dispatch, n.d.

⁹⁴ Intvw, Mason with Capt Bobby Roper, CPD/IOO, 20 Oct 05.

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ Email, 14 FTW/CP to 19 AF DOM, "Hurricane Katrina SITREP 002," 29 Aug 05; Article, 14 FTW, "CAFB survives Katrina," Silver Wings, 2 Sep 05.

⁹⁸ Article, 14 FTW, "Columbus Air Force Base supports recovery operations and evacuees from disaster areas," CAFB Katrina Update #1, 3 Sep 05; Newsletter, 14 FTW, Evacuee Newsletter, 3 Sep 05; Newsletter, 14 FTW, Evacuee Newsletter, 5 Sep 05.

⁹⁹ 81 TRW, CAT-Directive number 005, "Hurricane Katrina—'Base Line' Keesler-wide Recall," 27 Aug 05.

¹⁰⁰ Intvw, Ashcroft with Lt Col King, *et al.*

¹⁰¹ *Ibid.*

¹⁰² Intvw, Ashcroft with Col Simmons, *et al.*

¹⁰³ *Ibid.*

¹⁰⁴ SSS, Donald L. Cook, Director, 81st Services Division, "Memorandum of

Agreement for Recovery From Hurricane Katrina,” 14 Sep 05, w/2 atch: MOA, 81 TRW/FM and 81 MSG, 14 Sep 05 and Memo, AETC/JA to AETC/FM, “Keesler Memorandum of Agreement—Using AFPs to Contract NAFIs for Services,” 23 Sep 05; Memo, Col Philip Weinberg, AETC/FM, and Col Timothy Fletcher, AETC/SV to AU/CC, *et al.*, “Nonappropriated Fund Instrumentality (NAFI) Memorandum of Agreement (MOA) Clarification,” 17 Mar 05; Memo, David S. C. Chu, Undersecretary of Defense for Personnel and Readiness to SAF, *et al.*, “Limitations on the Use of Contracts and Other Agreements with DoD Nonappropriated Fund Instrumentalities (NAFIs) Pursuant to 10 U.S.C. 2492,” 29 Dec 04; Email, Ashcroft to Mason, *et al.*, “Services & Katrina,” 12 Dec 05; Law, U.S., 42 U.S.C. § 5149, “Performance of Services,” 25 Feb 05; Email, Coalson to Ashcroft, “FW: Nonappropriated Fund Instrumentality Memorandums of Agreement,” 9 Dec 05.

¹⁰⁵ Email, Ashcroft to Mason, *et al.*, “Interview with Col Ron Farris, AETC/CR,” 28 Dec 05.

¹⁰⁶ Intvw, Mason with General Looney.

¹⁰⁷ *Ibid.*

¹⁰⁸ Intvw, Ashcroft with Brig Gen Dougherty.

¹⁰⁹ Memo, AETC/SG to AFMOA/SGZO, “HQ AETC/SG Hurricane Katrina After Action Report,” n.d.

¹¹⁰ *Ibid.*

¹¹¹ Talking paper, “AETC/SGX Summary for Hurricane Katrina,” 1 Dec 05.

¹¹² Intvw, Ashcroft with Col Michael Miller, 82 MDG, 9 Nov 05.

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¹¹⁴ *Ibid.*

¹¹⁵ *Ibid.*

¹¹⁶ *Ibid.*

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.*

¹¹⁹ *Ibid.*

¹²⁰ SITREP, JFACC #23 (221800Z-231759Z Sep), 23 Sep 05 (from SD SR-J-22, Hist [FOUO], MSgt Spiers, *et al.*, “History of Joint Task Force—Katrina,” 19 Oct 05, information used is not FOUO); Memo, AETC/SG to AFMOA/SGZO, “HQ AETC/SG Hurricane Katrina After-Action Report,” n.d.

¹²¹ *Ibid.*

¹²² Email, Col Susan J Helms, AETC/ADO-TT, to Maj Gen Gilmory M Hostage, AETC/DO, “RE: A-XP-2AF Relocation Options,” 12 Sep 05, w/atc; Email, Maj Gen Hostage to Gen William R Looney III, AETC/CC, “RE: 2 AF HQ Move,” 13 Sep 05.

¹²³ Email, Col William Gampel, 2 AF/JA, to Ashcroft, “RE: Command of 2 AF,” 31 Jan 06.

¹²⁴ Intvw, Mason with General Looney.

Chapter 2

Training

In addition to the extensive physical damage to Keesler, Hurricane Katrina significantly interrupted training, which affected certain training programs beyond the end of 2005. This chapter reviews the effects of previous hurricanes on Keesler AFB's training programs, the creation of a Tiger Team to guide the reconstitution of training programs following Katrina, mitigating factors in the earlier-than-expected return of training to Keesler, and lessons learned. While the first technical training classes resumed only three weeks after the storm, the command expected some medical training programs would not return to Keesler for at least a year. As the command reviewed its training programs and various courses of action to get training back on line by the most strategic means possible, leadership believed that in the long run everything would return to Keesler.

Hurricanes and Training at Keesler AFB

Though the Gulf Coast area had a long history of storms, the first major hurricane to hit Keesler struck on 19 September 1947, six years after the base opened. In an era before hurricanes were named by the weather service,¹ gusting winds up to 100 mph

caused severe damage along the Gulf Coast, though the base suffered only minor loss, and training managers resumed classes the following day.² After a series of storms in the intervening years, August 1969's Hurricane Camille became the benchmark by which other disasters would be measured at the base.³

As Camille approached on 17 August, Keesler training center personnel moved assigned aircraft to safe havens and sheltered approximately 25,000 people. Winds gusted up to 135 mph on the base and, reportedly, over 200 mph in some nearby communities. One military member and seven dependents died in the storm, the worst casualty toll of all Keesler storms. In the local communities, 132 people died, 27 were counted missing, and nearly 9,000 had been injured; all utilities were interrupted and 5,662 homes were destroyed. On the 18th, base personnel found that the base had sustained relatively minor damage, a total of \$3.5 million, though over 250 base housing units were damaged and the base brought in 200 mobile homes to house military families who had lost their off-base residences. Because of the critical housing situation, the base was temporarily declared a restricted duty station, and military members

were advised not to bring their dependents with them on permanent change of station orders. Instead of immediately turning to the work of repairing base facilities, officials decided it was more important to help address the problems being experienced in the local communities. As many as 7,000 airmen supported relief efforts, and the base provided medical equipment and supplies, communications equipment, and other aid.⁴

Most technical training programs at Keesler were down for two weeks following Camille, but eight courses, primarily those supporting operations in Southeast Asia, continued with only minimal stoppage. Most of the remaining instructor force was ready to resume their normal teaching duties by 2 September. To help accomplish this, civilian instructors were encouraged to take leave during the week of 25-29 August to settle their personal affairs. Air Training Command officials decided to allow the nearly 600 students whose training regimen had been interrupted and who were scheduled to graduate during the week of 18-22 August to graduate. Twenty-one training facilities experienced some loss of electrical power, including air conditioning, but only five had roof damage. Air conditioning was especially important for the electronic training equipment used in many of the classrooms and training laboratories. By 1 September, air conditioning had been restored to almost all of the training facilities; training equipment testing revealed that only minor losses had occurred. ATC leaders decided to add

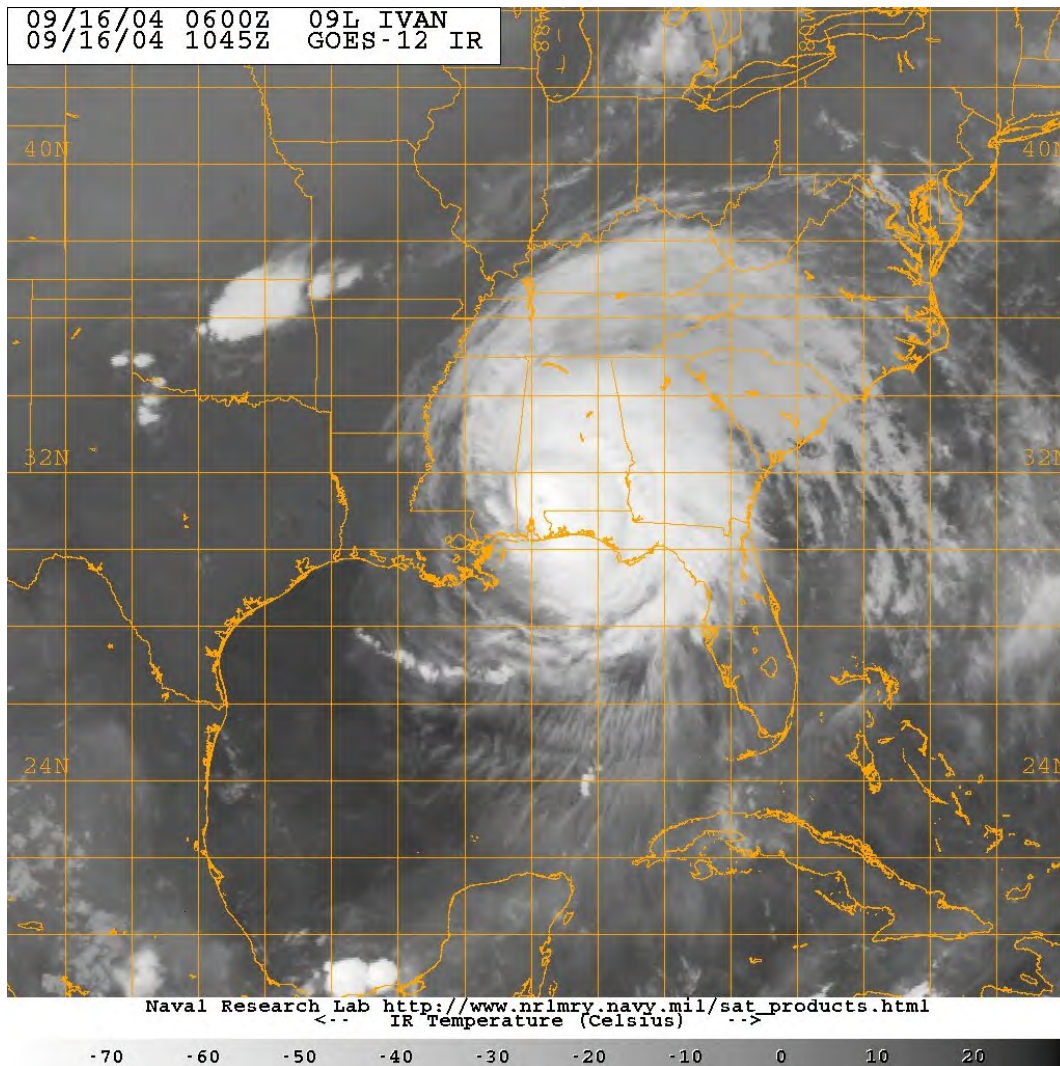
two weeks of nonacademic time to classes that had students in training as of 13 August to account for the down time. Some students were allowed to return to their permanent duty station based on individual hardship, if there were insignificant training deficiencies, or if they were so directed by HQ ATC.⁵ By comparison, the impact on the base's flying training program was far less severe.⁶ The base evacuated most of its air fleet, 20 T-28s and 5 C-47s, to Perrin AFB, Texas. Another 12 T-28s, 13 instructor pilots, 11 students, and 21 maintenance personnel moved to Maxwell AFB, where flying training continued virtually uninterrupted. One class of Keesler students graduated on time, but with fewer flying hours than called for by the syllabus. Flying training resumed at Keesler AFB on 1 September.⁷

Other hurricanes, Frederic in September 1979, for example, resulted in two days of lost training time, and Elena, six years later, forced the base to suspend training operations for four of Keesler's training groups for a couple of days. The 3395th Technical Training Group's classes, however, were interrupted for just over two weeks following Elena, as work crews repaired Cody Hall and Hangar 3, where its classes were held. Lt Col David M. Cannan, the base civil engineer, noted that non-prior service students who would normally be in classes helped expedite the overall cleanup following Elena.⁸

In September 1998, Hurricane Georges caused major damage to

Keesler, including the flooding of 150 family housing units. Georges made landfall near Ocean Springs, less than 10 miles from the base, early Sunday morning, the 28th. The storm slowed almost to a standstill after reaching land, dumping up to 20 inches of rain in some Gulf Coast communities. Not until Thursday were military members at Keesler ordered to report for their

normally scheduled work shifts; only mission essential civilians were expected to report to work. During Operation Dragon Sweep, the base recovery effort, over 2,000 students, mostly volunteers, pitched in to help clear debris and restore facilities. On 4 October, classes resumed for Keesler's nearly 3,000 students.⁹



Satellite image taken from the GOES-12 satellite of Hurricane Ivan at approximately 0645 EST. The eye of Hurricane Ivan was located about 90 miles west-southwest of Maxwell AFB, Alabama. Ivan, a Category 1 hurricane on the Saffir-Simpson scale, made landfall at Gulf Shores, Alabama, at approximately 0315 EST (Naval Atlantic Meteorology and Oceanography Center photo).

Six years later, in September 2004, the Keesler training programs lost an average of two and a half days to Hurricane Ivan, which hit the Gulf Coast on the 16th. In a 29 September briefing, training managers gave an extensive rundown on the storm's mission impact. Eight intelligence courses at Corry Station, Florida, operated under the direction of the 17 TRW, for example, lost almost two weeks of classes, as training relocated to another building; explosive ordinance training at Eglin AFB, run by Sheppard's 782 TRG, lost six days of training. The most seriously affected programs were AETC's non-destructive inspection (NDI) and aircraft structural maintenance (ASM) courses, held at Naval Air Station Pensacola. To resume training, instructors temporarily moved the course to Keesler while Chevalier Hall at Pensacola was repaired. Known as the "Mega Building" because of its massive size, nearly 1 million square feet, Chevalier Hall was out of commission until February 2005. Keesler stood up NDI and ASM classes within a couple of weeks after Ivan hit, and Eglin AFB hosted NDI supplemental training. The command held off shipping ASM students to Keesler from BMT until the second week of November. Because of the extreme situation, the ASM career field manager agreed that students would be allowed to graduate with deficiencies, due to a lack of equipment and proper facilities at Keesler. All initial skills classes, except ASM, made up their lost training time by extending the class day, convening classes on Saturdays, compressing the curriculum, or some

combination of these. A number of students graduated later than initially scheduled, but the command lost almost no production. Even water survival training at Pensacola, which was out of commission until 18 October, lost no student production. Most supplemental courses held at Hurlburt Field and NAS Pensacola, however, lost at least some production.¹⁰

Flying training programs in the command's Gulf Coast area were out of commission for about a week, but the bases made up the flying hours relatively easily. The 479 FTG at Moody AFB, Georgia, came up with an innovative solution to their T-6 flight program. The group evacuated ten aircraft to Randolph AFB where they flew sorties in the San Antonio area to make up lost training. Tyndall's F/A-22 aircraft found haven at Nellis AFB. While the initial qualification of instructor pilots was delayed by two weeks, the move to Nellis helped the 325 FW complete its flying hour program for FY04. Ivan had minimal impact on Keesler's C-21 flying training program, as there were no late graduates.¹¹

Hurricane Katrina

None of the earlier hurricanes, however, not even Camille, had prepared Keesler for what it was about to endure in August 2005. On the afternoon of Friday, 26 August, Hurricane Katrina's track moved west, from an expected landfall near Panama City, Florida, closer to Pascagoula, Missis-

sippi, about 20 miles from Keesler.¹² On Saturday, the 27th, Second Air Force officials requested that student shipments, primarily students who had just graduated from BMT, to Keesler be cancelled for 29 August, the day they expected Katrina to make landfall near the base. At that time, the command expected normal student flow to resume on the 30th.¹³ Complicating hurricane preparations and the eventual evacuation and on-base sheltering was the fact that everything had to be made ready over a weekend, and a three-day weekend at that, as the 26th was an off day due to Keesler's work schedule. To help track student accountability, the wing recalled those

who were on leave.¹⁴

Nearly 2,400 students hunkered down on base during the storm. Katrina made landfall early Monday morning, bringing with it extensive destruction to the local communities, significant damage to base housing, and some major losses throughout Keesler. Needless to say, all training was cancelled, the flow of new students to Keesler was halted, and the Air Force Personnel Center (AFPC) sent out a message to all personnel functions and offices stopping all movement of personnel, whether in a permanent change of station status or TDY, to Keesler. The storm pummeled the base for nearly 12 hours. On Tuesday after-



Building 27, Naval Air Station Pensacola Photo Lab, and the water survival equipment storage building, show considerable amounts of roof damage after Hurricane Ivan slammed into the base. Navy officials reported that nearly 90 percent of the buildings on the base suffered significant damage (U.S. Navy photo).

noon, NPS students moved back into their rooms in the Triangle dormitory area, relieving the stressed living conditions in the base shelters. Then, on Wednesday, HQ AETC officials decided to evacuate 1,100 students to Sheppard AFB, and the 81 TRW set up a plan to release almost everyone who had sheltered on base because of limited support functions at Keesler and the almost total loss of the local community infrastructure. Non-prior service (NPS) students, those who had come to Keesler directly from BMT, would be airlifted to Sheppard AFB, then TDY-to-School students and their families would be moved or allowed to return to their home duty stations. By midnight on the 1st, three C-17 flights had transported 448 NPS students to Sheppard and one C-130 had taken 41 international students and their family members, a total of 69 people, to Maxwell. TDY-to-School students who had automobiles that worked could leave as soon they had gathered their belongings; base officials told them to return to their home duty stations. Travel managers at Maxwell AFB rallied to help process airplane tickets for those TDY students who did not have cars. In addition to the 1,100 NPS students, Keesler also sent 1,300 students in training programs in a TDY status to their home duty stations. The 41 international students in training at Keesler simply returned to their home countries awaiting a new training opportunity. By the end of the year, no international students had returned to Keesler because of the limited lodging, and 13 students who completed language training at Lackland's Defense

Language Institute were also sent home rather than to Keesler. In addition, five students evacuated to Lackland AFB so their pregnant wives could receive medical care at the Wilford Hall medical center. To help with base clean up, 413 NPS volunteers remained behind after the initial airlift to Sheppard.¹⁵

A base newsletter published on 1 September noted that the Magnolia dining facility, located in the Triangle dormitory area, was open for hot lunches every day and that the Azalea dining facility would open soon. A mini-base exchange was in the process of being set up in the Triangle dorm area. While most of the base had electrical power, Mississippi Power expected to be offline for at least three weeks. Nextel was setting up a tower for cell phone service, and Verizon would add its service to the same tower. The newsletter carried a picture of three C-17 "Globemaster III" aircraft that had brought in emergency equipment and supplies on the 31st, and announced that more aircraft would be arriving daily. On the 2nd, the wing allowed families who lived off base to return to their dwellings if they were safe; if not, the families would be allowed to move into dormitories or lodging.¹⁶ By the 12th, military family housing (MFH) residents, who had been relocated from base shelters to dormitories or lodging, were allowed to return to their homes, if they were habitable. To give base personnel some idea of what they might encounter, the base civil engineer warned residents to:

*Survey their property, checking for broken windows, trees downed on houses, electrical lines downed on or near their home, sink holes in yards and missing siding blocking doorways and windows. Additionally, residents should remain vigilant for spiders, snakes or other animals that may have entered residences.*¹⁷

The wing was able to reassign some families whose homes were uninhabitable to houses that were unoccupied prior to the storm. In the first two weeks after the storm, only 42 families were able to move back into their own homes and 68 moved into previously unoccupied houses. Altogether, only about 800 of Keesler's 1,800 family housing units were habitable.¹⁸ On a more whimsical note, the newsletter announced a "name this 'operation' contest" for the Hurricane Katrina recovery effort. On 15 September the *Katrina Daily News* carried an article announcing that MSgt Terence Scott's entry, "Operation Dragon Comeback" would be adopted as the official name of Keesler's recovery, restoration, and humanitarian operations.¹⁹

Reconstitution of Training

As General Looney and the Command Chief Master Sergeant, Rodney E. Ellison, visited Keesler on 1 September, an initial assessment held that technical training probably could not be resumed at the base until March 2006. More important was the out-

reach to the local communities, described earlier in this study.²⁰ The initial reports from AETC training locations along the Gulf Coast showed that the intelligence courses at Corry Station would resume on 1 September. At Eglin AFB, the explosive ordinance disposal class lost one training day and medical students lost no training days. At Gulfport, Mississippi, facilities for structural engineering courses suffered widespread damage. Aviation-related technical training at Tyndall AFB and Eglin managed by the 372 Training Squadron (TRS) and by the 373 TRS at Hurlburt Field experienced no lost training time. At Pensacola, AETC's non-destructive inspection (NDI) and aircraft structural maintenance (ASM) courses managed by the 361 TRS lost two training days that could be made up without affecting the graduation date.²¹

In one of the first situation reports (SITREPs) sent from Keesler, Second Air Force reported that the 81 TRW was exploring the possibility of temporarily moving electronics principles (EP) training to Sheppard AFB. EP was especially important to AETC because it was a part of the training program for 29 separate AFSCs, including all of the avionics programs at Sheppard. Training expertise already existed at Sheppard AFB, so officials believed such an arrangement might be feasible. The average daily student load (ADSL) for EP was nearly 1,000, meaning that on any given training day, one could find almost 1,000 students, in various stages of progress, attending EP courses at Keesler. Look-

ing at Keesler's medical training, 17 students might be allowed to graduate early and transfer to their permanent duty stations; 53 could be sent to other medical facilities to complete their training programs; and the disposition of 10 students remained to be determined.²²

Realizing that working through the AETC CAT to prioritize, identify alternative courses of action, and reconstitute the training programs at Keesler would not be viable, the command established a training recovery team. General Looney appointed Col Susan Helms, the Assistant Director of Operations for Technical Training, to chair the team, which would be made up of representatives from key HQ AETC directorates, the technical training wings, and the 381 TRG. Early in the process, Colonel Helms received the complete support of General Utterback, the Second Air Force commander, and Brig Gen James A. Whitmore, the 82 TRW commander at Sheppard AFB. In the depths of the crisis, General Whitmore served as an interim spokesman for the Second Air Force. In addition to leading the Tiger Team meetings, Colonel Helms regularly telephoned and emailed Lt Gen Roger A. Brady, the DCS/Personnel on the Air Staff, and Col Robert Simmons, the Second Air Force director of operations. Col Richard Naylor, head of the HQ AETC Technical Training division, lent his expertise to the Tiger Team, and Lt Col Chuck Watterson, the HQ AETC Technical Training division branch chief who worked most closely with the majority of Keesler's courses,

provided administrative support to Colonel Helms and course management perspective.²³

By Friday, 2 September, General Brady advised the Chief of Staff of the Air Force and the Secretary of the Air Force on a general plan that had been developed in consonance with AETC. The outline included:

- Using every possible avenue to continue training. The DCS/Personnel was looking at the impact of 1, 3, and 6 month delays in training.
- Continuing to recruit and send trainees to BMT at the current pace. At the same time, determine as quickly as possible alternative locations for training, including the other services and civilian vocational schools.
- Avoiding the easy fix of sending BMT graduates on to their units, forcing the MAJCOMs to provide initial skills training.

The bottom line was that there would be no single, or simple, solution, "but we need to make continued training, wherever we can find it, the top priority." General Brady would send a team to HQ AETC and have his staff work with the career field managers to develop what he called a "fleet wide solution."²⁴

About 50 HQ AETC personnel attended the first meeting of the Tiger Team, held on 6 September, with a 37

TRW representative and Col James Hollingsworth from the Air Staff in attendance. Training officials from Goodfellow, Keesler, Sheppard, and Vandenberg joined in the discussion via video teleconference (VTC), which became the standard practice, as well as Air National Guard and Reserve representatives. As the Tiger Team evolved, additional organizations that had a stake in the proceedings, such as AFPC, joined in the VTC (or, later, teleconferences) or sat in on the meetings. Colonel Helms outlined the charter of the team as identifying the best ways to reconstitute the nearly 200 technical training courses taught at Keesler, with the 56 initial skills training programs for officer and enlisted personnel being the first priority consideration (see the Appendix for a list of initial skills courses). Colonel Naylor noted that General Looney's charge was to get the mission done first, then the command would sort out the paperwork. The standard operating procedure for the team would be for the HQ AETC training program manager (TPM) to develop two or three possible courses of action (COA) for review. Once the team had agreed on a COA, with Colonel Helms approval it would be sent to General Utterback for final approval. As might be expected, Electronics Principles was among the first courses identified for review. Preliminary investigation by the TPM showed that EP might, conceivably, be bypassed for several AFSCs and, for others, a short course might suffice. In these cases, HQ AETC training managers and the career field managers (CFM) agreed that graduating students

with deficiencies, having completed something less than the full course curriculum, was acceptable because they would quickly acquire the knowledge in subsequent courses in the training pipeline or through on-the-job training (OJT).²⁵

In a recap prepared late on 6 September for General Looney, Colonel Helms outlined the situation at Keesler and reviewed the progress made in reconstituting technical training. Altogether, 1,728 NPS students had been on station when the storm hit. The command graduated 75 students who had found refuge at Maxwell because they had completed enough of their training programs that they could be gainfully employed at their permanent duty station in their career field. The command expected to release significantly more students from training after further review.²⁶ The Tiger Team and TPMs had developed COAs for 11 of the 56 officer and enlisted initial skills programs for Second Air Force approval. None of the plans required gaining MAJCOMs to provide significant follow-on OJT for students who would graduate under the interim programs. Each week, about 200 BMT graduates bound for Keesler whose training programs had been interrupted by the hurricane would be held at Lackland until COAs had been developed for their training pipelines.²⁷

During the second Tiger Team meeting on 7 September, progress was evident as HQ AETC training managers proposed the first COAs, and the team started developing guidelines for

what needed to be considered in building the training plan, when COAs were ready for review, and what courses should be brought before the team. The 7-level, Personnel Craftsman course was first on the agenda. One possible COA was simply to waive the requirement for the course until it could be reconstituted at Keesler; the CFM had agreed to this for up to three months. During the discussion, several people remarked that it was not unusual to employ course waivers, and Colonel Hollingsworth stated that it would not be a problem for the Air Staff. Colonel Helms suggested that Keesler's initial skills courses were more important than the advanced courses; that the 7-level courses and supplemental training programs would be worked by exception if needed; and that if the command sought waivers, they should last six months rather than three. Colonel Hollingsworth agreed to discuss Keesler's 12, 7-level courses and the appropriate length of course waivers with the pertinent Air Staff offices. The preliminary COA for the next course under discussion, Financial Management Officer, identified Sheppard AFB as a good candidate for this initial skills training. The course had moved from Sheppard to Keesler in 2002 under the command's Centers of Excellence (CoE) program, and eight former instructors remained at Sheppard working with other courses. In addition, Sheppard had sufficient dining and dormitory capacity to accept these students. Colonel Helms did not approve the plan, asking that stop light charts, with red, yellow, and green indicators, be developed for each

COA as a way of easily identifying the status of all of the factors in the decision. Also, she asked the TPMs to identify how many students had been in training at Keesler at the time the storm hit, when the next class was supposed to start, and how many students were scheduled for each class. The last courses for discussion involved aircrew operations AFSCs. CMSgt Catherine Brean, the TPM, stated that training officials at Lackland AFB were ready to accept the training, but that instructors and simulators would be limiting factors. The CFM was willing to waive the simulator training, but Colonel Helms was not ready to forward the COA to Keesler.²⁸ In her recap of the day's activities for General Looney, Colonel Helms noted that more than 500 Keesler students²⁹ who had temporarily located at Sheppard and Maxwell AFBs had been released to their follow-on assignments. The CFMs had agreed that the students could be considered to have finished their courses, with training deficiencies. She also mentioned that many CFMs were advocating that BMT graduates in career fields with short training pipelines be allowed to go directly to a permanent duty station, bypassing initial skills training, to relieve the backlog of BMT graduates that would build up at Lackland. Colonel Helms pointed out that moving students along to operational units without any training, or with insufficient training, caused a burden on the other MAJCOMs. While such action would have been based on a CFM decision, AETC would have taken the



State of the art training facilities, such as the multi-million dollar Air Traffic Control simulator shown here, made the reconstitution of training at Keesler AFB, Mississippi, a high priority for AETC's technical training Tiger Team.

blame for sending the unskilled and under-skilled airmen to the field.³⁰

On 8 September, the team looked at four more courses. Mr. Jim Cain, from AETC Technical Training Division, noted that AFPC had begun diverting Basic Instructor Course (BIC) students previously headed to Keesler to Lackland AFB for training. The next class would convene on 21 September. SMSgt Kenneth Philips briefed a plan to stand up an abbreviated, 12-15 day EP courses at Vandenberg AFB for three missile management AFSCs. Vandenberg had instructors available, the CFM was in agreement, and 29 students who had been at Keesler could start training on 1 October, if Second Air Force accepted the plan.

Despite Second Air Force questions about the quality of and methodology involved with the training, the limited EP course stood up at Vandenberg. CMSgt Ralph Humphrey addressed the combat controller air traffic control tower course, part of the pipeline for a critical AFSC. A short term fix had been agreed upon by Air Force Special Operations Command, and AETC temporarily established a course at Pope AFB. Chief Humphrey said he needed three instructors to run the course and two more for the physical fitness training associated with the CCT career field. Second Air Force officials wanted to keep the course at Keesler and made it their number one priority, hoping to get it running between 21 September and 2 October. Chief Breaun again ad-

dressed her airborne mission system classes and stated that unless the course was up and running by 19 September the command would lose programmed flying hours critical to the training. She needed four instructors from Keesler or the career field to move the course to Lackland for a short-term fix. The CFM had agreed to the proposed plan and would allow students to graduate with deficiencies if needed. Colonel Simmons at Second Air Force stated that the simulator for Keesler's course worked, but the building in which it was located was uninhabitable at present, suggesting that the simulator could be moved to another on-base facility to make the course operational. Colonel Helms decided to let Keesler have more time to bring the course online.³¹ In her daily recap for General Looney, Colonel Helms noted that the issue of officer initial skills (OIS) training had been discussed with AFPC. Personnel Center officials had cancelled all officer classes scheduled for Keesler until 1 October, shortly after Katrina hit. These officers would be sent to Maxwell AFB's Air and Space Basic Course, if appropriate and if space was available, while waiting for their OIS courses. Students who had been in training at Keesler would be ordered to return to their home duty stations and rescheduled for training at some future date. AFPC took responsibility for working the officer training issues. Colonel Helms also mentioned that, "The human drive to get back to business as usual down there is obvious to us on the Tiger Team, and we're posturing ourselves to be responsive."³²

First thing on the morning of 9 September, Colonel Helms briefed General Looney on the first week of reconstitution team meetings. She discussed how the initial impression that Keesler would be out of commission for up to six months had been dramatically revised and that the wing was already talking about resuming some training before the end of September. She laid out a rough priority order for bringing classes back, with initial skills training for critical AFSCs highest priority, then the other 3-level awarding courses. She noted that many of the medical students had already been moved into training programs at other bases and that AFPC had cancelled all of the officer training courses at Keesler. COAs had been developed for the most critical skills and, overall, for 53 of the 56 initial skills programs; plans were in place for 12 upgrade training programs and 20 supplemental courses. At this early date, Second Air Force had actually approved and implemented, or was ready to implement, 17 COAs. Colonel Helms also provided the following breakdown on the status of Keesler's students:

| | |
|------------------------------------------|-------|
| Evacuated | 1,315 |
| Graduated and PCSed to unit | 647 |
| Graduated and sent to follow-on training | 159 |
| Held for course reconstitution | 509 |
| Held at Keesler for cleanup detail | 413 |

Guard and Reserve students were being sent home. At Lackland, 246 students had already graduated from BMT and were waiting to enter training at Keesler; another 138 were scheduled to graduate on the 9th, and 53 had been diverted to other classes in their training pipelines. Each week, approximately 141 BMT students would graduate and be put on hold waiting for training programs to resume at Keesler or at some other location, and Lackland had room to hold between 900 and 1,200 students while waiting for Keesler to come back online. The HQ AETC civil engineer commented that the dormitories, dining facilities, and most of the classrooms at Keesler seemed to be in pretty good shape. General Utterback stated that housing was his main concern, and part of the problem was all of the FEMA and FBI “squatters.”³³

At the Tiger Team meeting that afternoon, attendance at HQ AETC was down to about 20 people, plus Colonel Hollingsworth. Mr. Tip Farmer from AETC’s Technical Training division briefed additional options for EP. He proposed opening a 27-day course at Sheppard. At that time, there was an almost 300-student backlog for the course. Sheppard had some instructors, but needed an additional 8-10 from Keesler to start the course. There was sufficient dormitory space and dining facility capacity. The students would graduate with minor deficiencies that could be made up in the next segments of their avionics and precision management equipment training pipelines, which were held at

Sheppard AFB anyway. Sheppard AFB training managers could stand up the course almost immediately, if Keesler would send them the course materials, and they could run the course through the end of the year even without additional help. Ms. Janice Morrison, another of the AETC TPMs, discussed a COA to temporarily hold financial management training at Sheppard. Comptroller training had recently moved from Sheppard to Keesler under the CoE program, so there were former instructors still working on base and 13 who had retired in the local area that might be willing to return for the interim. Mr. Farmer had obtained CFM buy in. Colonel Hollingsworth stated that the career field was manned at 105 percent, so production could be delayed three to six months if needed. The Air Staff DCS/Personnel had begun looking at career field manning across the board and AETC’s training programs so the Tiger Team could better prioritize its work and make better informed decisions about which courses should stay at Keesler. Dr. Angela Canada from the AETC Technical Training Programming and Administration branch, offered that HQ AETC could reclassify BMT students away from financial management to other general AFSCs, if desired. This course of action was not adopted, and the command decided that no students would be reclassified during the reconstitution of the Keesler programs.³⁴ The daily recap for General Looney noted that General Brady had clarified guidance for working with the CFMs. Instead of the career field managers deciding on the COAs for the Air Staff,

the DCS/Personnel would begin requiring them to get a higher level of approval within their functional career fields. HQ AETC had already established working relationships with the O-6 functionals at the Air Staff, so the new operating procedure would have little effect on the command.³⁵

This in-depth look at the daily Tiger Team meetings during its initial week of operation shows the dynamics of the process, how team members interacted, and some of the key issues raised. Critical pieces of information missing from these first meetings was a comprehensive assessment of training capabilities at Keesler and a prioritized class list from Air Staff. Other issues beyond the scope of AETC to solve included the change in the status of students displaced by Katrina. If a student had gone to Keesler from BMT and then was sent to his or her permanent duty station, the student would return to his training program in a TDY status. This changed the pot of money that paid for the training, entitled students to different allowances, and allowed students who would normally have lived in NPS dorms at Keesler to live in rooms controlled by the Billeting Office. Another problem involved the coursework length. In some cases, the newly approved COAs placed students in a situation requiring a permanent change of station to attend the course instead of attending two shorter courses in a TDY status. The last of the major issues with which the command needed help was PCS entitlements for permanent party personnel. Because on-base family

housing had been so heavily damaged, and because housing in the local community was even scarcer, instructors and support staff were discouraged from taking their dependents. The entitlements and travel status issues required Air Staff intervention and coordination with Department of Defense offices and had not been resolved by the end of 2005. HQ AETC training officials were also concerned that the MAJCOMs that gained students who had been graduated without further training would blame AETC for passing them a training burden to be made up through extra OJT. A final piece of the puzzle was to determine where in their coursework the students had been interrupted, decide if it made sense to have individual students simply start over again, and how to insert students back into their coursework at the proper time. Included in this process was the whole problem of accounting for the students in the military personnel data system and the AETC technical training management systems. For example, did students who had been evacuated keep the same training line number (TLN) they had been assigned upon entering training after they had resumed training? (For the most part, the answer was, "Yes.") And, if the student reentered training at another base, could that base registrar access the training management system to update the records? (The answer to this question was, "No." HQ AETC staff actually updated the student records.) Another pressing issue was how to treat BMT graduates who had started training at Keesler as typical NPS students and then returned to

Keesler in a TDY status after the storm. (Basically, they would reenter the training program in the same status as far as liberty hours and personal privileges.)³⁶

In addition to the lengthy Tiger Team meetings, there was a tremendous amount of work being done at many different levels. Most important was the physical clean up at Keesler and the sorting out of personal lives. For training reconstitution, each of the parameters of the COAs had to be analyzed and then the overall plan coordinated with the appropriate CFM and, if possible, that training manager at Keesler. CMSgt Diana Bunch, from the Technical Training Programming and Administration branch, provided by-name accounting for the 2,000-plus students whom Katrina had displaced. Dr. Canada tracked the BMT students as they stacked up at Lackland. Mr. Bernie Frost, from the Student Programming office, loaded students into classes as they came on line at Keesler (or at other bases) and cancelled course offerings in the technical training management system, allowing individuals throughout the Air Force to update their training plans. Ms. Cheryl Koehler represented the command Comptroller at most of the Tiger Team meetings. Her constant refrain was to be sure to capture all costs associated with changed training plans to the special Hurricane Katrina account, but to be sure the costs could be fully justified if audited. The TLN-by-TLN accounting for the 2,000+ students whose training had been interrupted, plus for those who had

already been assigned class seats, was tremendously exacting and time consuming. Maj Alexander Smith, in the HQ AETC Technical Training division, posted the Electronic Principles course materials to the World Wide Web so instructors at Sheppard and Vandenberg could simply download them for use.³⁷

By 12 September and the start of the second week of meetings, Keesler reported that most dormitories were in good shape, almost all of its instructors had reported back to work, and that most training facilities were in good shape. The 81 TRW planned to resume aircrew training, EP, weather, ground radar, and air traffic control courses beginning 19 September. The plan was to put the airmen who had been doing base clean up at Keesler into courses first. A second set of classes, including the critical precision measurement equipment course, would resume on the 26th. There was also the possibility that the first BMT graduates could be airlifted to Keesler on Friday, the 16th. In the meantime, the Navy detachment at Keesler had already begun training for a very small contingent of students.³⁸

To let the world know they would soon be back in business, on 14 September the 81 TRW Public Affairs Office wrote a brief article for Secretary of the Air Force Public Affairs release inviting the press to attend a media event to be held on base the following Monday. The article noted that about 350 NPS students were to arrive at Keesler on the 16th and that the vol-

unteers who had been serving as a work crew would resume training on the 19th, the day of the media event. Reporters would be able to visit several training facilities and interview students and key leadership.³⁹

Colonel Naylor and five TPMs made a quick visit to Keesler on the 14th to see first hand the damage done and to meet with the Second Air Force and 81 TRW leadership and training managers. The group received a series of briefings and took a windshield tour of the base. After lunch, the TPMs visited the training squadrons to get a more specific idea about the state of their courses. The trip reassured Colonel Naylor that Keesler could successfully undertake the ambitious training program that was beginning to be fleshed out, though there were still some concerns with instructor availability and training equipment. Even this early in the reconstitution process, it did not make sense to the colonel to invest in any big ticket course moves. Maj Andrew Brinkman, one of the TPMs who made the trip with Colonel Naylor, stated that there still remained a lot of unknowns: “when it would be safe, or feasible, to welcome students back en masse...when sufficient lodging could be found on base...[when Keesler could] welcome back officer, civilian, foreign, and advanced enlisted students. And the big unknown was the psychological effect, the human toll that had been exacted from Team Keesler.” As important as the trip was to reassure HQ AETC about the ability of Keesler to resume training, it also let Keesler officials know “that HHQ

[higher headquarters] had not abandoned them and would be there to assist them in any way possible to get them back on their feet,” according to Mr. Tom Cacy, another of the TPMs who visited Keesler.⁴⁰

At the 15 September Tiger Team meeting, Colonel Naylor gave a quick report on the situation at Keesler. Much of the storm debris had been cleared and most training facilities were close to being fully operational; unfortunately, about one-fourth of the instructors had lost all of their household goods. Students were being prepared for shipment from both Lackland and Sheppard to Keesler, and Keesler officials agreed to assess their capability to accept more students on a weekly basis. As the week ended, 239 students returned to Keesler on Friday, the 16th; an additional 68 students were due on Saturday, with 229 BMT graduates scheduled to arrive on Monday. In addition, 21 students that had been part of the 400-person hurricane cleanup pool shipped to the next course in their training pipeline and 13 combat controllers, one of the Air Force’s most critical AFSCs, would report to Keesler for training on Monday. Colonel Helms reported to General Looney in her Friday recap that, “Suffice it to say that we are well ahead of the game by any measure.” That weekend, the wing finished moving all of the relief workers out of the Triangle dormitory area so those students returning to Keesler would have places to stay. A special edition of the *Keesler News*, the first edition printed following Katrina, detailed the resumption of classes.



This photo, taken by Mr. Tom Cacy, one of AETCs training program managers, shows the extensive damage Hurricane Katrina caused to a Mississippi Gulf Coast home. Many active duty and civilian employees at Keesler worked hard to restore the base’s training mission while struggling to rebuild their own lives.

General Lord discussed the accelerated return of training as being “the right thing to do.” He cited the fact that some of the training facilities had received little damage, noted that Keesler was the only place in the Air Force where many of the courses were taught, and the unique, and sometimes very training equipment at Keesler. In addition to air traffic control and electronic principles, enlisted aircrew training, weather, and the basic instructor course (BIC) came back on line the week of 19 September. Col Jessie Canaday, the 81st TRG commander, explained that “We need to get back to work. It’s important for the people and for the Air Force.”⁴¹

While the Tiger Team continued developing COAs, things did not move ahead so quickly at Keesler during the following week. Having been overrun by Katrina, all eyes focused on the approach of yet another hurricane—Rita. By 19 September, all permanent party military personnel assigned to Keesler had been recalled, but, on the 22nd, officials advised that anyone en route to the base should stop travel and remain in place until the 25th. In addition to halting the movement of assigned personnel, the second shipment of 200 students from Sheppard to Keesler was put on hold as the wing watched the storm. The pause did serve a positive purpose, as it allowed the wing to see how the training infrastructure—

dormitories, dining facilities, and classrooms—would hold up with the training switched “on.” At that time, 635 students were in class at Keesler, counting the 413 that had remained on base as a clean up force. Over 90 percent of the students were in the following initial skills training courses:⁴²

| Course | Number of Students |
|---------------------------------------------------------|---------------------------|
| Weather | 150 ⁴³ |
| Electronic Principles | 139 |
| Air Traffic Control (ATC) | 89 |
| ATC Tower class | 45 |
| ATC Radar class | 11 |
| Enlisted Aircrew | 39 |
| Ground Radio | 23 |
| Computer, Network, Cryptographic, and Switching Systems | 46 |
| Combat Control | 14 |
| Information Management | 26 |

Other courses in session, enrolling only handfuls of students, included BIC, computer programming, computer planning and implementation, radio operations, aviation resource management, and financial management.⁴⁴

By 22 September, the base had completed its evacuation/shelter plan in case Rita made landfall nearby. Fifty buses had been contracted to transport 1,000 evacuees, and the nearly 1,100 relief agency workers on base had been told to self-evacuate if need be. About 1,000 permanent party personnel were ready to self-evacuate, and 839 NPS and 170 Navy students

and a small group of mission essential personnel would shelter on base. As things turned out, Rita made landfall near the Texas-Louisiana border on Saturday, 24 September, and Keesler did not evacuate anyone. While the initial SITREP noted no significant damage due to high winds or water, rainfall associated with the storm revealed a number of roofs that needed additional repair. Also, the winds of Rita did new damage to several buildings.⁴⁵

At the same time Keesler was standing up classes, a few alternate locations were also readying courses. Discussion during the 19 September Tiger Team meeting showed that Vandenberg and Sheppard were preparing EP courses, and that EP students were already at Goodfellow and Fort Gordon, Georgia. Also introduced was a COA to send Global Command and Control System-Joint (GCCS-J) students to a Windows Administration class at the Second Air Force detachment in Falls Church, Virginia. One drawback to sending students to Falls Church instead of Keesler was that it cost about \$1,000 more per student to attend because of the higher per diem rate. The big advantage of Falls Church was that Second Air Force already had a detachment at the Defense Information Systems Agency (DISA) where the course could be taught. Despite the extra cost, the course began at Falls Church on 24 October, graduating 15 students by the end of the year. At the 20 September Tiger Team meeting, Dr. Canada announced that AETC would begin shipping EP students to



The return of students to Keesler AFB, Mississippi, was a milestone on the road to recovery. Their arrival was another step toward normalcy that boosted the morale of the Keesler community.

Vandenberg and Sheppard at the end of the week.⁴⁶

Sheppard began teaching electronic principles on 26 September. About 130 students who had been evacuated to Sheppard were reinserted into the course, depending on what “block” of training they had been in prior to Katrina. The next week, more than 100 BMT graduates began the 27-day course. A1C Robert Davis, who reentered the course at block 2, was interviewed by John Ingle from the 82 TRW Public Affairs at Sheppard for an article about EP. Airman Davis said that he and his fellow students were glad to be back in training after a month of being used for assorted details at Sheppard; Davis was feeling

especially good because he had just passed his block 2 test. For the same article, MSgt Rosa Marlin and SSgt James Barnett discussed the challenges of getting a course started in such a short time, two weeks, as opposed to the typical six months to a year. Sergeant Barnett, one of the instructors, compared his preparation for teaching as going back to school. New EP students began returning to Keesler on 8 November. By that time, 309 students—267 Air Force, 27 Guard, and 15 Reserve—had entered EP at Sheppard.⁴⁷ Sheppard also stood up a Financial Management Officer course, using instructors sent TDY from Keesler. The first instructor arrived on 3 October and three more on the 10th to begin classes. At the beginning of

November, a fifth instructor had arrived and about 50 students were in training. By the end of the year, all 46 students whose training had been interrupted had either completed the course at Sheppard or were in class at Sheppard. HQ AETC officials expected the training to return to Keesler in March 2006.⁴⁸

Following the Rita scare, student shipments from BMT to Keesler resumed, and by 1 October approximately 1,300 students had returned to the base. The Tiger Team continued developing COAs, with most courses being returned to Keesler. Of note, the Guard and Reserve got the go ahead to recall as many of the students whose training had been interrupted by Katrina as possible. As noted earlier, the initial block of courses focused on getting NPS students back into training, because the support facilities needed—classrooms, dormitories, and dining facilities—had survived the storm almost intact. Also, BMT graduates needed the initial skills training to make them contributing members at their first duty station. By the end of September, almost all of the initial skills courses that were interrupted had been brought back on line in some form. The bigger challenge was getting students who had been in a TDY-to-school status back into the classroom because of limited billeting. A 6 October status report showed that out of 1,400 rooms used by the wing, only 104 were completely out of service. Nearly 800 rooms were occupied; 302 were fully operational and currently empty; 195 had some water

damage and the carpeting had been removed. Of the 799 rooms that were occupied, 202 were assigned to permanent party personnel whose homes had been destroyed or severely damaged by Katrina; Army Corps of Engineers personnel filled another 133 rooms, and FBI, FEMA, and U.S. Customs official took up 14 rooms. At some point, these 349 rooms would become available again for students. Besides on-base billeting, many TDY-to-School students found lodging off base. Because the local hotels were in even worse shape than the base facilities, this imposed another limitation on the number of students that could be brought into Keesler training programs. To help ease this situation, the 81 TRG released one of its dormitories for TDY student lodging on 1 November. Even so, TDY students lived two to a room, whereas pre-Katrina they would have had single accommodations. Second Air Force officials emphasized that the families of students who had gone into safe haven should not return to the Keesler area, even if the service member was returning to training. There simply were not sufficient living quarters in the area for families. By this date, too, the lack of a prioritized list of courses that the command had been expecting from Air Staff was beginning to be an impediment, and Colonel Helms expressed her concern to General Looney that the Tiger Team needed that list to make the best use of still-limited Keesler resources to get students into those classes that were most critical to the Air Force mission.⁴⁹

Keesler's 338 TRS detachment at the U.S. Army Signal Center at Fort Gordon stood up a four-week, theory-only EP course that began operations on 4 October. To compensate for the material that had been eliminated from the standard EP course, 338 TRS added two days to the follow-on Satellite, Wideband, and Telemetry Systems (SWATS) course normally taught at Fort Gordon. At the same time, the CFM agreed to waive blocks 8 and 9 of the SWATS course. The net effect of the changes allowed the completion of EP and SWATS in only 92 academic days, compared to 132 days it would normally take to complete. While the students graduated with training deficiencies in both portions of the course, the impact on the field was minimal. To help stand up the course, Keesler

sent an instructor to Fort Gordon to get the detachment staff up to speed. Altogether, 66 students completed EP training at Fort Gordon.⁵⁰

One of the signal events in the process of training reconstitution was the receipt of the Air Staff priority list for courses, which followed the same general strategy as that outlined by the command. Signed by General Brady on 6 October, the enlisted course list was disseminated to the Tiger Team on the 12th. At the top of the initial skills list for active duty was Electromagnetic Spectrum Management (AFSC 3C1X2), followed by Aviation Resource Management (1C0X2), Combat Control/Air Traffic Control (1C2X1/1C1X1), Personnel (3S0X1), and Information Management Special-



Personnel from the 82nd Logistics Readiness Squadron load returning students' baggage on pallets for air transport from Sheppard AFB, Texas, back to Keesler AFB, Mississippi.

ist (3A0X1). The initial skills list also showed the priority order assigned to courses by the Reserve and Guard, which were rarely the same as for active duty AFSCs because the manning levels often differed from the active duty force. For example, both the Reserve and Guard ranked the Airborne Communications and Electronics System course (1A3X1) as their number one priority, while it was eighth on the active duty list. Electro-magnetic Spectrum Management (AFSC 3C1X2) was not assigned a priority number by the Reserve and Guard, at least in the initial course listing, and Aviation Resource Management (1C0X2), second on the active duty list, came in only twenty-second for the Reserve and ninth for the Guard. The Air Staff package included a detailed breakdown by AFSC and class start date, showing which students needed to return to training and which could be graduated with an acceptable level of deficiency. Most career fields allowed students who had already completed between 75-85 percent of their training to graduate, but some, such as Air Traffic Control (1C1X1) and Technical Applications Specialist (9S100), required students to complete the full course. The package also contained the Air Staff, Reserve, and Guard priorities for supplemental, advanced, and 7-level courses.⁵¹ HQ AETC received the Air Staff package for restarting officer training on 2 November. The highest priority for active duty officers was Special Tactics Officer (AFSC 13D1B) training. The Guard's top priority was Financial Management Officer (65F1) and the Reserve's was Weather Officer

(15W1).⁵² The Appendix to this study contains the enlisted and officer initial skills priority lists.

Barely five weeks after Katrina, then, Keesler had resumed training for the most critical AFSCs and several other courses. Each week, Keesler officials inventoried available rooms and told HQ AETC how many students it could take for the following week's classes. Training had been set up and was in operation at several alternate sites, and more courses, both at Keesler and at other locations, were being added to the "inventory" weekly. More than half of the active duty, enlisted students whose training had been disrupted by Katrina had re-entered training programs, though only a small number of officer, Guard, and Reserve students had returned.⁵³ Within the HQ AETC Operations Directorate, the Technical Training and the Technical Training Programming and Administration divisions had worked out internal procedures to account for students and manipulate the Education and Training Course Announcements (ETCA) to show courses being brought on line and those being cancelled, as start dates slipped or looked as if they could not be achieved. The Tiger Team had worked out a set of operating procedures and developed COAs for most of the enlisted initial skills courses. And the Air Staff DCS/Personnel had delivered the document that, to a large degree, would shape the future work of the Tiger Team. Significant challenges lay ahead, but most of the hard work of simply figuring out how to set up pro-

cedures to reconstitute training under the most taxing circumstances the command had ever faced was behind the Tiger Team. Following such a detailed look at the reconstitution efforts through the first month of team meetings, the rest of the chapter will focus on the most significant or exceptional developments and events that took place through the end of 2005.

Vandenberg and Robins AFB, Georgia, joined the ranks of alternative sites for training during the second week of October. A 37-day EP class began at Vandenberg on 11 October. As a prerequisite for the air-launched cruise missile and inter-continental ballistic missile training done by the 381 TRG, EP was a natural fit. Classroom space was available, and, as at Sheppard, the instructor staff was willing to put in the extra hours needed to stand up the course. According to Capt Dan Maheux, a training flight commander at Vandenberg, standing up the course relieved some of Keesler's training load and returned about 50 students to training "in an environment free from the distractions of ongoing hurricane recovery efforts." The arrangement was relatively short-lived as Keesler began accepting all new EP students beginning on 31 October, except for two communications-related career fields, which resumed training at Keesler on 14 November. It should be noted that prior to Hurricane Katrina, training managers for the technical applications specialist career field had decided to incorporate EP training into their initial skills pipeline at Goodfellow AFB early in 2006.

When Katrina hit, the 17 TRW tried to accelerate the Goodfellow program, and AFPC actually sent several returnee students to Goodfellow for EP training which was supposed to start in December. An agreement made in September would have allowed the 17 TRW to use a Keesler course number for their new EP course. In the meantime, however, the 81 TRW reactivated its EP programs and a new course number for Goodfellow had not been activated. For this reason, and because Keesler could handle the load, the Goodfellow students were diverted to courses at Keesler before they could enter training. Training managers expected the first EP course at Goodfellow to begin in February 2006. The 5th Combat Communications Group at Robins AFB hosted Keesler's Theater Deployable Communications (TDC) courses beginning on 11 October. Because the Georgia unit's mission was to provide deployable communications support, it had all of the needed equipment for the course. Altogether, the team trained 60 students before the course returned to Keesler in January.⁵⁴

On 31 October, 314 BMT graduates arrived at Keesler for training, representing the largest daily shipment of students to the base in over two years. The total number of NPS students at Keesler exceeded 1,700, roughly 200 students more than had been at the base immediately prior to Katrina. By 1 November, the Tiger Team had developed, and Second Air Force had approved, COAs for all 56 of Keesler's initial skills courses; training

had actually resumed for 27 courses. Of the 119 supplemental and advanced courses, COAs had been approved for 14 of the 21 priority one courses, with the other 7 awaiting approval by Second Air Force.⁵⁵ Additionally, the following locations were, or soon would be, offering courses off-site:

| Base | Course |
|--------------|--------------------------------------------------|
| Altus | Airfield Operations Officer ⁵⁶ |
| Falls Church | GCCS-J (two different courses) |
| Fort Gordon | Electronic Principles |
| Robins | Theater Deployable Communications (4 courses) |
| Sheppard | Electronic Principles Financial Management |
| Tyndall | Airfield Operations Officer |
| Vandenberg | Electronic Principles |

Colonel Helms made a quick trip to Keesler during the first week of November to personally thank the Keesler technical training team for its hard work in the two-plus months since Katrina. In view of the significant progress that had been made, the Tiger Team began meeting twice each week instead of daily, beginning 8 November. Colonel Helms re-focused the team efforts to look at longer term course schedules to absorb the backlog of trainees that had built up as training was being reconstituted. The new focus also meant that training managers at Goodfellow, Lackland, Sheppard, and Vandenberg would no longer need to “attend” the teleconferences, unless

there was a COA that affected them, and on the headquarters staff only those who were “pitching” COAs needed to sit in on the meetings. Continued Air Staff, AFPC, Guard, Reserve, and HQ AETC Personnel directorate representation at each meeting was expected. Any interested party was welcome to dial in. In making the schedule change, Colonel Helms praised the “relentless work and attention of this tiger team.”⁵⁷

Since advanced training courses were the lowest priority for reconstitution, there was a series of discussions in the Tiger Team and off line with CFMs and Air Staff officials about what to do for those who needed to complete 7-level schools for promotion. On 9 November, AFPC formally addressed the issue. Normally, completion of the 7-level course was required before staff sergeants could be promoted to technical sergeant. Any person who had not attended 7-level school due to Katrina qualified for a skill waiver under the provisions of AFI 36-2502, “Airman Promotion Program.” Table 2.3 allowed commanders to waive the school if the member had completed all of his or her upgrade requirements except the 7-level course. This allowed E-5s to be promoted to E-6, but did not automatically upgrade them to 7-level. When the schools resumed at Keesler, personnel were expected to attend the next available class. By mid-month, Colonel Helms asked for help drafting new guidance for the Air Staff and AFPC to disseminate to all personnel and training offices addressing the overall training and personnel situation

at Keesler. The message, sent to the field on 2 December, formalized the procedures HQ AETC, Second Air Force, and the 81 TRW had developed during the three months since Katrina disrupted training. The message noted that all initial skills courses were back in operation and taking students. Active duty, Reserve, and Guard pipeline students flowed from BMT on a weekly basis as before the storm. Because of this, however, classroom seats for returning students might not be available until some future date. Those students who could not return to training would be accounted for under a special Training Requestor Quota Identifier (TRQI), "AZZO," managed by HQ AETC. Because the quotas would come up on an ad hoc basis, students might not receive much advance notice of their class date. HQ AETC promised to try to give students at least two weeks advance notice; accordingly, personnel offices were encouraged to check the military personnel data system frequently to see if a quota had been allocated for one of their personnel. Reserve and Guard units receiving a quota notification would return students to Keesler under the original TLNs and use the original orders; active duty students returning to training would be assigned new training line numbers. TDY-to-School students and officer students were directed to confirm that billeting was available before proceeding to school.⁵⁸

By 1 December, many of the topics discussed during the Tiger Team meeting showed how much the focus of the reconstitution effort had

changed since September. There had been a series of off-line meetings with AFPC that would culminate in the 2 December message discussed previously. AFPC officials also promised to help HQ AETC track down students whose training had been interrupted, and who, over the intervening months, had dropped out of AETC's training management system. Some 518 Social Security System numbers had been "lost"; AFPC had located 493 of the students, and the other 25 may have separated from the service. The HQ AETC Personnel directorate was looking at the long-range staffing projections for Keesler and working to send additional manning for the wing. Instructor manning for officer student courses seemed to be on track; on the enlisted side of the house, as many as 62 vacancies might need to be filled by 31 December 2006. Capt Tom Sawyer, the HQ AETC Personnel representative, said that his division was looking at a number of alternatives to send Keesler the needed instructors, including the use of administrative and support personnel in the classroom. Colonel Simmons mentioned that he had been getting some push back on TDY requests for instructors, and AFPC noted that some of the manning assistance requests had been for specific individuals who, at the time, had AEF or other commitments that took precedence. As of the meeting, AETC Personnel had received manning assistance requests totaling 47 people. One thing that remained a constant from earlier meetings was bed space for critical TDY-to-School students. By this time, however, Col Deborah S.

Van De Ven, the 81 TRG commander, expected to have sufficient room to cover all of the initial skills courses and all of the priority one through three advanced and supplemental courses on the HQ USAF DCS/Personnel list beginning in January. Mr. Bernie Frost commented that almost all of the FY05 students whose training had been disrupted had either been reentered into training or had been rescheduled; most Guard students, too, had been scheduled for training or validated for later schools. He also noted that priority four classes that did not have approved COAs would be cancelled for the January to March quarter, but that he could reinstate the courses if they became operational. Another difficulty was getting Guard and Reserve students back into the classroom. A number of students had received orders for classes, but failed to show up at Keesler. The command needed to find a way of getting someone into those classroom seats that were going empty.⁵⁹

At the 15 December Tiger Team meeting, Colonel Helms announced that this would be the last meeting before Christmas and that, beginning in January, she hoped the team would meet just once per week. Keesler was getting ready to go into its two-week holiday break. The base had significantly more BMT graduates in training, approximately 2,000, than had been at the base before Katrina hit, and the number would continue to grow as more infrastructure was restored. Altogether, during the week that started 5 December, Keesler had

2,566 students on base, a number that dropped to 2,455 the following week as the base prepared for its break. Lodging was still a limiting factor for advanced training programs, as over 280 of Keesler's permanent party personnel were still living in student dormitories or in billeting. Also, a significant number of contractors working to repair and restore base facilities were living in the dormitories. One measure of how successful Keesler had been in rebuilding its training programs was the discussion during the Tiger Team of returning to Keesler in January the TDC training that had been temporarily set up at Robins AFB. In the Technical Training Division's weekly activity report for 16 December, training managers reported that in addition to having approved COAs for all officer and officer initial skills courses, the top 33 priority supplemental courses identified by the Air Staff also had approved courses of action and instructors were ready to resume training in January. Col Douglas C. Hayner, the 81 TRW vice commander, believed that over 90 percent of all training programs would be back on line at Keesler by 1 April 2006.⁶⁰

Student Accountability

Keeping track of students who left Keesler, in general, was challenging, and the numbers of students reported in the SITREPs changed from day-to-day as the command gathered more and better information. As CMSgt Bunch put it, "Everything happened so fast!" As one of the key players in making sure all of the students were

accounted for by name, she spent most of her days on the telephone tracking down students and addressing their concerns. For the air evacuation to Sheppard AFB, people signed the manifests as they got on board the aircraft. Some signatures were illegible, and it seemed as if some people did not sign as they boarded.⁶¹ In addition to those airlifted, a number of students drove to Sheppard. Accountability for active duty students and permanent party person was established in about a week. Through the first months of the Tiger Team meetings, the status of National Guard and Reserve students was an issue. Many Guard and Reserve students out processed at Maxwell, and accounting for them was not a problem. At Sheppard, there was a mixed record. According to Maj Thomas Ameluxen, head of the 82 TRW Training Office:

We had people show up at the main gate at 4:00 in the morning four days later asking what to do. We were asking who they were and what they were doing here. So then they never processed in. Nobody had a clue.

The day after the first airplane arrived here, the Guard was sending people home. So, they had people in-and-out and we didn't know they were gone. They would leave the dorms and not even out-process at all, so we didn't even know they were gone out of the dorms.



A technical training student shows her identification card to a PERSCO team at Sheppard AFB, Texas. Accountability of returning students was a high priority for Keesler AFB and the other AETC bases that assisted evacuees.

We asked for a list of everybody they [military training leaders] had in the dorms from Keesler AFB. They would look through their books and give us a list. Some of those people were Guard who had packed up and didn't even tell the MTLs they were leaving the dorms.

It was bad coordination with the Guard, and the Reserve was the same thing. It took

*us about a week to straighten it up. That was a lessons learned. Next time we will be better at it.*⁶²

While Keesler counted about 1,100 students who evacuated to Sheppard (the NPS students who were airlifted), the 82 TRW showed over 1,200 evacuees had made it to Wichita Falls. Compounding the problem, the Reserve student coordinator at Keesler went on emergency leave. Finally, some Guard and Reserve students went to a safe haven without letting anyone know where they were for an extended period of time.⁶³

Another challenge with Guard and Reserve students was getting them back into training. Initially, there was a push to get Guard and Reserve students into courses almost as soon as they were reconstituted. Because these students attended technical training courses during time away from their full-time jobs or university programs, it was not always possible to get them back into training programs, and some estimated that as many as one-third of Guard students who had been in training when Katrina hit might not be able to finish their training. After experiencing a number of frustrations, concerned parties agreed to delay reentry into training programs for Guard students until March. For the Reserve students, questions arose about their legal status. If a student was on orders to attend training, how could you pay them if they were not in training? Further, should the Air Force Reserve terminate their orders or keep them on

orders hoping for training to resume quickly? The Reserve decided to let its students decide whether or not to stay on orders for up to three weeks to see if training would resume. For those initial courses that stood up at Keesler, most Reserve students were able to return to training.⁶⁴

Other Training Programs

In addition to the technical training programs, Hurricane Katrina affected several other programs, including the Junior Reserve Officers Training Corps (JROTC) and Air Force Reserve Officer Training Corps (AFROTC), as well as medical training, professional military education programs, and flying training.

JROTC

Hurricane Katrina affected several other programs. The JROTC program at high schools throughout the Gulf Coast area was the hardest hit Air Force program; only two AFROTC programs, at colleges and universities, were impacted. Initially, officials expected the 16 JROTC units in New Orleans and Biloxi to have sustained extensive losses, including, perhaps, the complete destruction of facilities and government equipment. In the Gulf Coast area hardest hit by the storm, AETC officials tallied 65 instructors and approximately 4,500 cadets in 31 JROTC detachments. By 8 September, more than a week after Katrina hit, the command counted 20 units, 15 in Louisiana and 5 in Missis-

sippi, that had sustained damaged. The situation for JROTC staff was, in some cases, dire. Not only did many lose their homes and possessions, some also temporarily lost their jobs. Since JROTC instructors were local school employees, some were simply released until the schools reopened and told to sign up for unemployment. Some schools expected to resume classes in four to six weeks, some expected to be closed for up to six months. By mid-September, the status of the JROTC programs had become clearer. The number of schools seriously affected by the storm had been reduced to 15. Of those, ten schools, nine in Louisiana and one in Mississippi, expected to reopen by 3 October. Two more schools expected to reopen by January 2006, and one in Louisiana hoped to reopen by summer 2006. Only two schools in Louisiana had not yet come up with plans to reopen. JROTC units back in session reported less damage than expected. By law, the Air Force reimbursed the schools one-half of the instructors' minimum pay. Research showed that the USAF could place displaced instructors in a JROTC vacancy, work with the local school districts to hire displaced instructors on a short-term basis until the JROTC program was reconstituted, or it could pay 100 percent of the minimum instructor salary, regardless of cadet enrollment, with a waiver to Department of Defense Instruction 1205.13, "Junior Reserve Officers Training Corps (JROTC) Program."⁶⁵

AFROTC

The AFROTC staff and instructors, as Air Force members or civil service employees, were in a better position than their JROTC counterparts. The Tulane University detachment, in New Orleans, was the most seriously affected by Katrina. Program managers placed the 39 cadets in detachments at other universities for short-term enrollment, and the 5 military personnel transferred to units close to their temporary homes or to Maxwell AFB supporting AFROTC requirements. The ROTC building at Tulane appeared to have little structural damage in the first good, post-Katrina assessment. There was no evidence of wind or rain damage to the detachment offices, reception area, or the cadet areas on the second floor. The only classroom, however, had significant flood damage, with mold growing at least three feet up the walls. The university hired an outside firm with over 400 workers to develop a repair plan, clean up debris, and repair facilities. The hope was to reconstitute the program in January 2006 with the start of the spring semester. The ROTC program at the University of Southern Mississippi was closed until the university reopened on 12 September.⁶⁶

Medical Training

Keesler's medical students were relatively easily dealt with because the 882 TRG at Sheppard AFB managed the medical training program and because Keesler's training programs could be accomplished at other medical

treatment facilities. By 15 September, the command identified 24 students (13 active duty, 2 ANG, and 9 Reserve) who had been far enough along in their programs that they were allowed to graduate; of these, 18 had already received orders and departed for their permanent duty station. Thirty-two students remained at Sheppard AFB awaiting orders to an alternate training site; 41 had reported to their new training locations; and 6 were enroute to new training sites. A month later, all students had been placed in training programs, though some had not yet reported, at other USAF facilities. Early in November, the medical group commander at Keesler expected training programs to be down for at least a year until the hospital could be returned to a fully operational status.⁶⁷

NCO Academy

The Keesler NCO Academy (NCOA) found a ready answer to its training problem at Maxwell AFB. Mathies Hall at Keesler, which housed the NCOA, actually fared well during Katrina, but was turned over to the base Career Advisor and First Term Airman Center and other programs needing auditorium space while their facilities were being repaired. The limiting factor for the NCO Academy was billeting for the students who went TDY to Keesler to attend. The solution was to move the 110 non-Keesler students and the NCOA instructors to Maxwell AFB to complete the class that had been in session when the hurricane hit. Air University's Officer Training School (OTS) had two avail-

able dormitories, ten classrooms, and staff offices for the NCOA; Gunter NCOA instructors helped with the teaching load. While the storm disrupted classes eight training days short of graduation, the NCOA staff consolidated the remaining training into five class days. The NCOA briefly returned to Keesler to finish training for 27 Keesler students who had remained behind to help with base clean up. The November class, held at Maxwell, consisted of 134 students. NCOA officials were not certain how long they would remain at Maxwell, but the arrangement was working well.⁶⁸

336 TRS

Sheppard AFB's 366th Training Squadron had a 37-person detachment at the Navy Construction Battalion Training Center in nearby Gulfport, Mississippi. Instructors taught structural engineering in a joint service environment. The training/builder school ran 52 training days with Navy, Army, and Air Force students before each of the services broke out for specialized training; USAF follow-on training lasted 35 academic days. Hurricane Katrina devastated the training center. The Army and Navy temporarily reconstituted training at Port Hueneme, California, but the 366 TRS decided not to because of the low number of airmen involved (only 12 airmen entered each class) and the cost of the move. Instead, Air Force students returned to their home bases; because of the joint nature of the course, however, in October five USAF instructors accompanied the school-



This photo, an aerial view of Keesler AFB, Mississippi, taken after Hurricane Katrina, shows the Triangle Dormitory area, which was high enough in elevation to avoid the 19-foot storm surge that devastated the residential areas just outside the gates.

house to California. The schoolhouse returned to Gulfport before the end of the year, and Air Force officials expected training to resume in January 2006, and most of the detachment staff remained to help with the clean up and repair of facilities. Maj Thomas Rietkerk, the detachment commander, expected to make up lost production by the end of FY06.⁶⁹

CCAF

The Community College of the Air Force (CCAF) remained actively involved with Keesler students from the beginning. This program, headquartered at Maxwell AFB, granted college credit for technical training

courses completed. CMSgt Ralph P. Messineo visited HQ AETC to ensure that proper credit would be given to the students whose training had been interrupted. As might be expected, the 8 November CCAF graduation at Keesler AFB was postponed, with plans to hold a combined ceremony in the spring.⁷⁰

Flying Training

Unlike technical training, Katrina had relatively little impact on flying training. The 45th Airlift Squadron (AS), a 314th Air Mobility Wing tenant unit at Keesler, evacuated its five C-21 aircraft to Little Rock AFB. Eight pilots and one technician remained at



A student from Keesler AFB, Mississippi, poses bemusedly atop a longhorn steer at Sheppard AFB, Texas, where the 82nd Training Wing gave a Texan welcome to evacuees from Hurricane Katrina.

Little Rock. Student pilots were able to complete their training prior to leaving Keesler on 28 August and departed for their gaining units before the storm made landfall. Lt Col Christopher Miceli, the 45 AS commander, rode out the storm at Keesler so he could assist command post operations and to help get the flight line operational as quickly as possible. Families of the squadron personnel convoyed to Memphis with their pets for safe haven the day before the storm hit, then continued to Little Rock. Lieutenant Colonel Miceli believed that, “Keeping the families together to support each other was one of the best things we did.” His wife led the convoy. While at Little Rock, the 45 AS flew four missions to support the Katrina relief

effort, before returning to Keesler on 13 September.⁷¹

Upon their return, squadron personnel found that the hangar they used had sustained significant roof damage, but training equipment was intact. In fact, while the unit was deployed, Secret Service, Marine Corps, and the 81 TRW had used the hangar to support relief operations. Before training resumed on 3 October, personnel from the 45 AS put in over 800 man hours in cleanup and repair efforts. The squadron returned 151 programmed flying hours to the 314 AMW to reallocate for FY05. Even though the squadron’s four courses⁷² were out of commission for five weeks, the 45 AS was able to quickly catch up its training programs

through “scheduling flexibility and some creative shifting of course modules,” according to Colonel Miceli.⁷³

Also of concern was flying training at Columbus AFB. As a precaution, the 14 FTW evacuated 41 T-1 and 12 T-38 aircraft; another 3 T-37s and 1 T-38 were off station with students conducting cross country training as the storm approached; and 1 T-37 was in a non-mission capable status at Millington Field, Tennessee. With so many planes to move, the wing sent 5 T-38s and 10 personnel to Lackland AFB’s Kelly Field Annex; 7 T-38s and 10 personnel to Offutt AFB, Nebraska; 18 T-1s and 52 personnel to Colorado Springs, Colorado; 13 T-1s and 26 personnel to Dallas-Fort Worth; and 9 T-1s and 21 personnel to Northwest Arkansas Regional Airport. In addition, the wing hangared 56 T-38s (three of which belonged to the 479 FTG at Moody AFB), 24 T-37s, and 7 unflyable T-1s (one of which belonged to the 71 FTW at Vance AFB) at Columbus; 66 T-37s were secured on the ramp. By 31 August, all of the aircraft and their aircrews had returned to Columbus. The wing lost only two training days and made up almost all of the training time by the 9th.⁷⁴

Conclusion

Although initial assessments indicated it would take several months to get Keesler’s training courses up and running, numerous factors helped the base recover much more quickly. The use of the Tiger Team allowed the

command to more fully explore options for reconstituting each of Keesler’s courses. Each of the training bases offered alternative locations for training, and the experts from finance, services, and personnel, among others, allowed the body to address the full range of issues facing reconstitution. The AETC approach was so successful that the Air Staff established its own counterpart to help resolve Katrina-related issues. Another significant factor that helped the command return training to Keesler with relatively little perturbation was the low number of new recruits brought into the Air Force in FY05 because the service was over end strength. Instead of enlisting some 35,000 non-prior service men and women for the year, as was typical in the 2000s, only 19,222 went to BMT in FY05. Because of this, there was room at Lackland to simply hold students bound for Keesler until their courses came back on line, and for Sheppard to hold the Keesler evacuees. At the same time, there were significantly fewer students headed for Keesler for training each week during the year. For FY06, which began 1 October 2005, the Air Force sought to accession 30,750 new recruits. The arrival of 314 BMT graduates on 31 October 2005 was the largest shipment of NPS students in two years, and the 1,700 students at Keesler exceeded the number of students present in the days before Katrina.⁷⁵

The \$160 million-plus poured into new dormitories, training facilities, and utility projects over the last ten years at Keesler also paid off. The

dormitories, built to withstand winds up to 170 mph, were critically important to the reconstitution of training, as well as to the initial relief efforts in the area. Less than 10 percent of Keesler's training space was unusable. The primary reasons that dorm space was a limiting factor in the training reconstitution was that hundreds of relief workers lived on base, and base families who lost their homes, either temporarily or permanently, were also put up on base. Training facilities, for the most part, fared well in the storm; only the trainer development building and McClelland and Garrard Halls were severely damaged. To compensate, trainers and students moved classroom equipment and simulators to available space in Dolan and Stennis Halls. Roof damage was widespread, but work crews addressed those needs as among the first to be repaired. Built to higher construction standards, the newer buildings proved their value. Mr. Donald Selman, one of the TPMs who visited Keesler in September, wrote, "The most frustrating observation I came away with was the fact that we had classrooms and equipment ready to begin training again, but no infrastructure or enough instructor staff to support large numbers of students to attend classes." The \$40 million invested converting to underground utility systems addressed a critical need that had surfaced during Hurricanes Elena in 1985 and Georges in 1998.⁷⁶

Because the base had recent hurricane experience with Ivan in 2004 and Dennis in July 2005, plus a number of

smaller storms during both years, the base practiced sheltering twice each year. Based on Ivan, the base updated its Full Spectrum Threat Response (FSTR) Plan, and, during Dennis, base personnel sheltered for a half day as the storm approached and exercised major portions of the hurricane response section of the revised plan. One of the recurrent themes of the interviews conducted by Dr. Ashcroft at Keesler was that the plan worked. The FSTR covered plans for force and resource protection, preparedness, response procedures, recovery operations, and evacuations based on the severity of the storm.⁷⁷

As Colonel Simmons reflected on actions taken prior to the storm, he wondered if it might have been better to evacuate the students prior to the storm, except for the clean-up force, instead of moving them to Sheppard and Maxwell afterward and letting the TDY-to-School students return to their home bases. General Lord stated that the 1,100 students shipped to Sheppard after the storm were sent to make room for the FEMA, Red Cross, and hundreds of other aid workers, as Keesler AFB became a central staging area for humanitarian missions along the Mississippi coast.⁷⁸ TSgt Ronald D. Regina, who was TDY to school at Keesler, questioned the advisability of recalling students from leave to attain accountability. In some cases, students returned from leave at locations hundreds of miles from the storm. TSgt Regina also wondered why the base kept people in shelters for several days after the storm, especially those who

had the means to leave the base for a safe haven or for their home duty station.⁷⁹

One of the numerous complicating factors in the reconstitution of training, as previously noted, was the fact that Keesler became the center of relief operations. Keesler's operational runway and command posts made the base a key component in the local area relief efforts, but the hundreds of aid workers occupied dormitory and billeting spaces normally used by students, as well as office space. Even if FEMA, *et al.*, had brought its own communications hub and portable shelters, the command may not have been able to reconstitute technical training much more quickly than it did. The damage to the base support infrastructure, not to mention the staggering losses suffered by so many base personnel, certainly delayed the wing's ability to bring training back on line. In addition, the technical difficulties in accounting for the displaced students, especially those from the Guard, and then reentering them into training at the proper point in time delayed the smooth reconstitution of training.

The command had ample opportunity to move courses to alternative locations. Because electronic principles was integrated into so many career fields, instructors at Sheppard, Vandenberg, and Fort Gordon were able to help meet the need while Keesler recovered from the storm. In fact, standing up EP courses at these training centers helped reduce the travel many students had to make during

their qualification "pipeline." Problems arose, however, when students changed from going to school in a PCS status rather than in a TDY-to-School status. The command was also able to move training programs to other DOD facilities where sister services or Defense agencies provided similar training programs, and sending Keesler instructors TDY expanded the opportunities to reconstitute training in alternate locations. In the short term, the command was unable to convert courses, or portions of courses, taught at Keesler into distance learning (DL) format. With available communications technologies, it would have been possible for instructors in classrooms anywhere in the world to teach students anywhere else in the world. The studio facilities at nearby Maxwell AFB, in addition to Keesler's own Wall Studios, provided uplinks to the Air Force's training network. Also, the World Wide Web could have allowed instructors to connect to students anytime and anyplace. For knowledge-based courses, DL offered a means to deliver training without having students physically present at Keesler. The delivery of lectures and demonstrations over a satellite TV network would have been relatively easy to do, but the courses that would have supported such an approach, for the most part, were low on the Air Force priority list. Converting courses to web-based applications was a time-consuming and expensive proposition. As 2005 ended, Keesler officials were hoping to complete feasibility studies by the end of January on six courses for

conversion, at least in part, to DL format.⁸⁰

The command decision to return all training to Keesler in the long run, however, seems to have restricted the amount of training temporarily done at other bases. Maj Gen Marné Peterson, the Director of Operations and Training in the DCS/Air and Space Operations at the Air Staff, recommended moving enlisted aircrew initial skills training to Lackland until Keesler could resume production. When the command decided to stand up the classes at Keesler beginning on 19 September, General Peterson expressed her concern that, initially, only NPS students would be in the training program; it appeared that ten students, two Guard and eight active duty, attending the course in a TDY-to-School status would not be brought back into training expeditiously and that another class of 10 would also be affected. In these AFSCs, 20 missed quotas represented fully one-sixth of the training requirement for the entire year. The Tiger Team re-engaged immediately and these students were allocated seats and graduated on time. Don Aday, the training administrator for the 37 TRG at Lackland, was another who thought that enlisted aircrew-related training done at Keesler could have been moved to Lackland, as well as electronic principles. In one proposal received independent of the Tiger Team process, Brig Gen Jerald Engelman, deputy adjutant general for the North Dakota National Guard, suggested that air traffic control might be taught at the University of North Da-

kota, which had a program similar to that offered at Keesler. Neither the Lackland nor the North Dakota Guard suggestion was implemented.⁸¹

The accounting for students moved into transitional programs proved especially difficult to solve. EP course managers at Sheppard did all student transactions by hand, then faxed the paperwork to Keesler for entry into the command's Technical Training Management System (TTMS). HQ AETC training managers were, understandably, concerned about allowing Sheppard personnel access to Keesler-managed course data. Because of the short time training was held at Sheppard, it was not worth it to set up the full mechanism to do student accounting through TTMS.⁸² On the other hand, Maxwell AFB personnel specialists processed the necessary paperwork to allow the 1,300 airmen who had been at Keesler in advanced training courses to return to their home stations, relieving Keesler of a huge burden.⁸³

In addition to the obvious facility issues, Ms. Trisha Jones, who made the 14 September trip to Keesler, identified several personal and professional qualities that helped with the training reconstitution. "The thing that was very apparent was everyone pulling together and supporting one another." Pride, determination, and the ability to laugh in the face of adversity also helped. "The message I came away with...was, 'Don't give up on us. We're coming back.' Keesler was a great example of 'grace under fire.'"

Mr. Tom Cacy, who also made the trip, “wandered the base [while awaiting the flight home], talked with some folks along the route (students doing clean-up, civilian cops preparing to depart the base for their home locations, other people wandering around trying to not look lost) and found high morale and energy.”⁸⁴ Maj Andrew Brinkman, also from the headquarters, reflected that the spirits of the instructors and staff seemed high, and:

*These folks just wanted to get back to work, to instruct and conduct training once more. I assume they wanted to get their minds off their losses and their family separation issues, and figured that as long as they remained at Keesler they might as well stay busy.*⁸⁵

¹ The U.S. adopted a naming convention in 1951 based on the phonetic alphabet (Able, Baker, Charlie) that was modified in 1953, when the National Weather Service began giving tropical storms female names. In 1979, male and female names were first used for Atlantic Ocean and Gulf of Mexico storms. See National Weather Service, “Reason to name hurricanes,” <http://ww.aoml.noaa.gov/general/lib/reason.html> accessed 30 Nov 05.

² Dale M. Titler, KTTC History Office, *Gulf Tempest: Major Hurricanes and Their Effects on Keesler Technical Training Center*, 1986, pp. 2-5

³ People repeatedly mentioned Hurricane Camille during Dr. Ashcroft’s visit to Keesler AFB in November 2005.

⁴ Titler, pp. 12-16; see Hist (S/NF), ATC, FY 1970, pp. 488-494 for Hurricane Camille coverage and supporting documents IX-72 through IX-91, information used is not Secret or NOFORN. The restrictions on family moves are detailed in Msg, USAFMPC to AIG 8106 and CNGB, [Moves to Keesler AFB], 282135Z Aug 69, SD IX-88.

⁵ Titler, p. 24

⁶ The flying training program at Keesler was a Military Assistance Program for foreign students, 80 percent of whom were South Vietnamese. Between 1967 and 1973, the program graduated 906 pilots. See Patricia E. Parrish and MSgt Linda C. McFarland, KTTC History Office, *Keesler Air Force Base Then and Now*, 1991, p. 50.

⁷ Hist (S/NF), ATC, FY 1970, p. 492, and MFR, ATC/TT, “Status of Tech Training at Keesler,” 27 Aug 69, SD IX-87, information used is not Secret or NOFORN.

⁸ Titler, pp. 31-32 and 68-69; Article, “Base Civil Engineer Discusses ‘Elena’ Cleanup, Recovery,” *Keesler News*, 20 Sep 85, SD 516 in the 1985 Keesler Technical Training Center history.

⁹ Hist (FOUO), 81 TRW, 1 January 1997-31 December 1998, pp. 1 and 63-69, information used not FOUO; Intvw, Phil Tucker, 81 TRW/HO, with Brig Gen Speigel, 81 TRW/CC, SD I-3 in the 1997-1998 history. See also, Article, Claudia Kolker, “Georges Slams into Gulf Coast, Forces Extensive Evacuations,” from <http://www-tech.mit.edu/V118/N45/georges.45w.html> accessed 16 Dec 05 and “Hurricane Georges” from <http://www.southalabama.edu/meteorology/hurricanegeorges.html> accessed 16 Dec 05.

¹⁰ Brfg, AETC/DOX, "HQ AETC CAT Hurricane Ivan," 29 Sep 04; Email, Michael J. Snedeker, AETC/AXP, to AETC/DO Inbox, *et al.*, "A-XP-Training Impact of Hurricane Ivan," 4 Oct 04; Email, Capt Rodney W. Rodgers, 2 AF/CCE, to AETC/XP Inbox, "A-XPP-Training Impact of Hurricane Ivan," 26 Oct 04; BBP, AETC/HO, "Hurricanes and Other Natural Disasters," 2 Sep 05; Jane Stephenson, "Naval Air Technical Training Center Mega Building Reopens," Navy News Stand, 13 Feb 05 from http://www.news.navy.mil/search/display.asp?story_id=16887 accessed 29 Nov 04.

¹¹ Brfg, AETC/DOX, "HQ AETC CAT Hurricane Ivan," 29 Sep 04.

¹² Email, SSgt Mark Savelio, 81 OSF/OSW, to Keesler Hurricane Bulletin, "Hurricane Katrina Bulletin #11," 26 Aug 05, w/atc: "Keesler AFB Hurricane Bulletin," 26 Aug 05 0400 CDT; Email, SSgt Coery M. Worster, 81 OSF/OSW, "Hurricane Katrina Bulletin #14," 26 Aug 05, w/atc: "Keesler AFB Hurricane Bulletin," 26 Aug 05 1600 CDT.

¹³ Email, Capt John W. Sims, 2 AF/DOT, to AETC CAT, "BMT Student Stop Shipment Request for Keesler AFB," 27 Aug 05.

¹⁴ Disc, George W. Cully, AF/HOH, and Ashcroft with Col Douglas C. Hayner, 81 TRW/CV, 2 Nov 05; Email, TSgt Ronald D. Regina, 25 OWS/WXAT, to Bruce Ashcroft, AETC/HO, 20 Jan 06.

¹⁵ Msg, AFPC/DPA to AL ALPERSCOM and AL 8106, "Stop Movement of Permanent Change of Station (PCS) and Temporary Duty (TDY) for Keesler AFB MS," 291450Z Aug 05; Msg, AETC CAT Director to Air Force Operation Center, "Hurricane Katrina Mission Impact," 2200Z01 Sep 05; Article, Brig Gen William Lord, "Prepare to Go Home Safely,"

Katrina Daily News, 1 Sep 05; Article, John Ingle, "1,100 Keesler Airmen-in-Training Transfer to Sheppard in the Wake of Hurricane Katrina," AETCNS, 2 Sep 05 from <http://www.aetc.randolph.af.mil/pa/AETCNS/Sept2005/090205173.htm> accessed 9 Sep 05; Paper, Elizabeth D. Waters, 81 TRW/CVK, "A 'Kat' Tale," Oct 05; Notes, Ashcroft, Training Recovery Team Meeting, 24 Oct 05; Email, 1st Lt Kristin N. Maloney, AETC/IAO, to Ashcroft, "RE: International Students and Katrina," 9 Jan 06; Email, Timothy M. O'Neil, AFSAT/TOC, to Ashcroft, "RE: International Students at Keesler during Katrina," 3 Feb 06; Email, Diana L. Bunch, AU/CFAB, to Ashcroft, "Katrina Storm Information," 16 Mar 06. Waters's paper, prepared from Keesler CAT records and Brig Gen Lord's personal notes, chronicles activities at Keesler through 28 September. One international student and his family left Maxwell to safe haven in Orlando, Florida. The number of NPS volunteers was typically said to be "400."

¹⁶ Waters, "A 'Kat' Tale;" Lord, "Prepare to Go Home Safely," and "Keesler Basics," both in *Katrina Daily News*, 1 Sep 05. The *Katrina Daily News*, distributed in paper format on base and published on the Keesler AFB homepage, <http://www.keesler.af.mil>, was the primary means of communicating the ever-changing status of base facilities and providing a snapshot of the ongoing recovery efforts.

¹⁷ News Release, 81 TRW/PA, "Keesler Housing Update," 12 Sep 05.

¹⁸ Article, AETC News Service, "Recovery Team Repairing Keesler AFB Infrastructure," 21 Sep 05 from <http://www.aetc.af.mil/pa/AETCNS/Sept20>

05/092105203.htm accessed 26 Sep 05; Article, "Katrina Leaves \$900 Million Wake at Mississippi Base," AETC News Clips, 19 Dec 05 from <http://www.aetc.af.mil/pa/AETC-Clips/19-Dec-05.pdf> accessed 19 Dec 05. See Chapter V for a more complete review of the family housing situation.

¹⁹ See photographs on the front of *Katrina Daily News*, 15 Sep 05, for the naming contest.

²⁰ Msg, AETC CAT Director to Air Force Operation Center, "Hurricane Katrina Mission Impact," 2200Z01 Sep 05; Intvw, Ashcroft with Col Robert Simmons, 2 AF/DO, *et al.*, 4 Nov 05.

²¹ Email, Maj Raymond J. Lamy, AETC/DOXP, to AETC/XP Inbox, "FW: 2 AF Consolidated SITREP_30 Aug 05," 31 Aug 05.

²² Email, Maj Raymond J. Lamy, AETC/DOXP, to AETC/XP Inbox, "FW: 2 AF Consolidated SITREP_30 Aug 05," 31 Aug 05; Brfg, AETC/DOX, "Hurricane Katrina Situation Update," 1 Sep 05; Notes, Ashcroft, Training Recovery Team Meeting, 6 Sep 05; Email, 12 FTW/CP to AETC/HC Inbox, *et al.*, "HQ AETC SITREP 004 DTG 032225Z Sep 05," 3 Sep 05. EP courses started weekly, so over the eight-week length of the course at any point in time students would be just beginning their study, others would be in mid-course, and others would be nearing graduation. The number of medical students was later identified as 103.

²³ Msg, AETC CAT Director to Air Force Operation Center, "Hurricane Katrina Mission Impact," 2200Z01 Sep 05; Email, Michael J. Snedeker, AETC/AXP, to AETC/XP Inbox, "Re: HOT, HOT, HOT—Tiger Team Rep Identification," 4 Sep 05; Intvw, Ashcroft with Col Susan Helm,

AETC/DO-ATT, 19 Oct 05; Disc, Ashcroft with Col Richard Naylor and Lt Col Chuck Watterson, AETC/DOO, 3 Oct 05. While General Utterback never relinquished command of Second Air Force, he did give up his duties temporarily as the general court martial convening authority to the Nineteenth Air Force commander. Email, Col William Gampel, 2 AF/JA, to Ashcroft, "RE: Command of 2nd AF," 31 Jan 06.

²⁴ Email, Maj Gen Gilmary M. Hostage, AETC/DO, to AETC/DOE Inbox, "'Fw: Way Ahead on Keesler Training," 5 Sep 05.

²⁵ Notes, Ashcroft, Training Recovery Team Meeting, 6 Sep 05; Brfg, AETC/DOO, Katrina Training Re-Constitution," 6 Sep 05.

²⁶ The command graduated over 500 students the next day with the agreement of the CFMs and with the acknowledgment that the students had training deficiencies. Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status-Weds," 13 Oct 05, originally sent to General Looney on 7 September.

²⁷ Email, Helms to Ashcroft, "FW: Tech Training Tiger Team Status Brief," 13 Oct 05, originally sent to General Looney on 6 September. The way HQ AETC counted initial skills programs differed from the way Second Air Force counted. AETC consistently referred to 56 programs, equal to the number of courses, while Second Air Force counted 33, reflecting the number of AFSCs involved.

²⁸ Notes, Ashcroft, Training Recovery Team Meeting, 7 Sep 05.

²⁹ Included both initial skills and TDY-to-School students.

³⁰ Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—Weds," 13 Oct 05.

³¹ Notes, Ashcroft, Training Recovery Team Meeting, 8 Sep 05; Email, Helms to Ashcroft, "FW: Tech Training Tiger Team Status-Fri/Sat," 13 Oct 05, originally sent to General Looney on 10 September.

³² Email, Helms to Ashcroft, "FW: Tech Training Tiger Team Status-Thurs," 13 Oct 05, originally sent to General Looney on 8 September.

³³ Email, Ashcroft to AETC/HO All, "Training Reconstitution at Keesler/Katrina Meeting with CC," 9 Sep 05, w/atc: Brfg, AETC/ADO, "Katrina Training Re-Constitution," 9 Sep 05; Email, Margaret Wick, AETC/CCS, to 12 FTW/CP Inbox, *et al.*, "AETC/CC/CV/DS/CCC Daily Calendar," 8 Sep 05, w/atc: Schedule of Daily Events, 9 Sep 05. Col Helms stated that there were either 408 or 413 students in the cleanup crew; exact numbers were still being worked. Eventually, everyone agreed on 413. The status of Guard and Reserve students was especially difficult to determine, as discussed later in this chapter.

³⁴ Notes, Ashcroft, Training Recovery Team Meeting, 9 Sep 05; Email, Diana L. Bunch, AU/CFAB, to Ashcroft, "Katrina Storm Information," 16 Mar 06.

³⁵ Email, Helms to Ashcroft, "FW: Tech Training Tiger Team Status-Fri/Sat," 13 Oct 05, originally sent to General Looney on 10 September.

³⁶ Notes, Ashcroft, Training Recovery Team Meetings, 6-9 Sep 05; Email, Helms to Ashcroft, "FW: Tech Training Tiger Team Status-Weds," 13 Oct 05, originally sent to General Looney on 7 September; Discussions, Ashcroft with various team members during the week; Email, Leo Harman, AF/DPPT, to 81 TRG/CC, *et al.*, "MAP 96-05 TDY Variance for Courses over 20 Weeks at Keesler AFB, MS," 17 Jan

06. An email Ms Koehler sent to members of the Tiger Team (and other offices) spelled out the funding intricacies in detail. See Email, Cherlyn A. Koehler, AETC/FMAT, to Lt Col Chuck F. Watterson, AETC/DOOI, *et al.*, "RE: Katrina Course Tiger Team," 12 Sep 05.

³⁷ Notes, Ashcroft, Training Recovery Team Meetings, 6-9 Sep 05; Disc, Ashcroft with Col Richard Naylor, AETC/DOO, 6 Jan 06; Email, Stanley Hall, 338 TRS/VEDA, to Maj Alexander I. Smith, AETC/DOOI, and Ashcroft, "RE: Electronic Principles on the AETC Page," 3 Jan 06. See

https://www.aetc.af.mil/do/doo/datafiles/EP_course_material/index.htm for the EP course materials, accessed 12 Dec 05.

³⁸ Notes, Ashcroft, Training Recovery Team Meeting, 12 Sep 05.

³⁹ Article, 81 TRW/PA, "Keesler to Resume Limited Training," 14 Sep 05; Email, Lt Col Charles M. Davenport, AETC/DOYW, to Col Wiley L. Hill, AETC/DOY, *et al.*, "FW: Keesler to Resume Limited Training," 14 Sep 05.

⁴⁰ Disc, Ashcroft with Col Richard Naylor, 6 Jan 06; Email, Thomas Cacy, AETC/DOOS, to Ashcroft, "RE: Keesler Visit in September," 11 Jan 06, w/3 atch: 1) "Category 4 Command," 2) Results of Keesler Trip," 3) "New Keesler Pics;" Email Maj Andrew Brinkman, AETC/DOOC, to Ashcroft, "RE: Keesler Visit in September," 13 Jan 06.

⁴¹ Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—Weds/Thurs 15 Sep," 13 Oct 05; Notes, Ashcroft, Training Recovery Team Meetings, 15 and 16 Sep 05; Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—Fri 16 Sep," 13 Oct 05; Email, 12

FTW/CP Randolph Command Center to Brig Gen Stephen D. Schmidt, AETC/LG, *et al.*, "AETC CAT SITREP Katrina 017 DTG 162229ZSep05," 16 Sep 05; Email, 12 FTW/CP Randolph Command Center to Brig Gen Stephen D. Schmidt, AETC/LG, *et al.*, "AETC CAT SITREP Katrina 018 DTG 192330ZSep05," 19 Sep 05; Article, "Training Mission Back on Track," *Keesler News*, 22 Sep 05, pp. 1, 24.

⁴² Notes, Ashcroft, Training Recovery Team Meeting, 16 Sep 05; Article, AETCNS, "Keesler Issues Stop Travel Order," 22 Sep 05 from <http://www.aetc.af.mil/pa/AETCNS/Sept2005/092205204.htm> accessed 26 Sep 05; Article, Susan Griggs, "Leadership Changes As Training Mission Resumes," *Keesler News*, 29 Sep 05, p. 4; Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—Mon/Tues—19-20 Sept," 13 Oct 05.

⁴³ This number included 28 Navy and 1 Coast Guard students.

⁴⁴ Article, Susan Griggs, "Leadership Changes As Training Mission Resumes," *Keesler News*, 29 Sep 05, p. 4.

⁴⁵ Email, 12 FTW/CP Randolph Command Center to Brig Gen Stephen D. Schmidt, AETC/LG, *et al.*, "AETC CAT SITREP Katrina 019 DTG 202225ZSep05," 20 Sep 05; Email, 12 FTW/CP Randolph Command Center to AFCAT Command and Control, *et al.*, "SITREP 020, 97 AEG, 230047ZSep05," 22 Sep 05; Email, 12 FTW/CP Randolph Command Center to Maj Shayne R. Halter, 58 SOW/XP, *et al.*, "AETC SITREP 24 Sep 05 DTG 232248ZSep05," 24 Sep 05; Article, Susan Griggs, "Leadership Changes As Training Mission Resumes," *Keesler News*, 29 Sep 05, p. 4; Intvw, Col Robert Simmons, 2 AF/DO, *et al.*, with Ashcroft, 4 Nov 05.

⁴⁶ Notes, Ashcroft, Training Recovery Team Meetings, 19 and 20 Sep 05; Brfg, AETC/DOP, "Weekly Activity Report (WAR) DOP," 19 Oct 05; Telecon, Cindy Seymour, 333 TRS/TRR, with Ashcroft, 15 Feb 06; Email, Cindy A. Seymour, 333 TRS/TRR, to Ashcroft, "FW: GCCS-J Windows Administration," 17 Feb 06.

⁴⁷ Article, John Ingle, "Keesler Course Receives Assist from Sheppard," in *Keesler News*, 27 Oct 05, p. 4; Email, Patricia L. Jones, AETC/DOOI, to Ashcroft, "FW: Electronic Principles," 31 Jan 06.

⁴⁸ Intvw, Dwight Tuttle, 82 TRW/HO, and Ashcroft with Maj Thomas Ameluxen, 82 TRW/TO, 8 Nov 05; Intvw, Tuttle and Ashcroft with Sammy Miller, 782 TRG/TGA, 9 Nov 05; Email, Dave Nave, 82 TRW/TOR, to Ashcroft, "Information Requested," 16 Nov 05; Email, Katie Kennedy, 335 TRS/TRRA, to Ashcroft, "FW: Financial Management Officer Course," 13 Feb 06; Email, Col Deborah S. Van De Ven, 81 TRG/CC, to Ashcroft, "RE: Course Production Scorecard," 10 Jan 06, w/atch: Brfg (draft), 81 TRG, "Keesler AFB Tech Training Reconstitution Scorecard," 7 Jan 06.

⁴⁹ Notes, Ashcroft, Training Recovery Team Meetings, 28 and 29 Sep 05; Email, Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—Weds 28 Sep," 13 Oct 05; Email, Helms, AETC/ADO-TT, to AETC/DOE Inbox, "AFDP Keesler Training Priorities—Enlisted 6 Oct 05.pdf," 14 Oct 05; Article, Susan Griggs, "New 'Shipment' of Students Largest in Two Years," AETCNS, 17 Nov 05 from <http://www.aetc.randolph.af.mil/pa/AETCNS/Nov2005/111705245.htm> accessed 18 Nov 05.

⁵⁰ Email, Patricia L. Jones, AETC/A3TI, to Ashcroft, "FW: Fort Gordon EP," 14 Feb 06.

⁵¹ Email, Lt Col Chuck F. Watterson, AETC/DOOI, to 81 TRG/CC, *et al.*, "FW: Excel Version of Priority List," 12 Oct 05, w/4 atch: 1) Memo, AF/DP to AETC/CC, "81 TRW Training Reconstitution Priorities," 6 Oct 05, 2) List, AF/DP, "Initial Skills Training Priority," 22 Sep 05, 3) List, AF/DP, "Suppl, Adv, 7-lvl Trng Priority," 22 Sep 05, 4) List, AF/DP, "Interrupted Training," 11 Oct 05 (Atch 4 is the Excel version of Atch 2).

⁵² Email, Maj Gen Gilmory M. Hostage, AETC/DO, to Todd Fore, AETC/DOP, and Col Susan J. Helms, AETC/ADO-TT, "AFDP Keesler Training Priorities – Officer," 3 Nov 05, w/atc: Memo, AF/DP to AETC/CC, "Officer Training Priorities/Disposition and Additional Enlisted Student's Disposition," 1 Nov 05.

⁵³ Colonel Helms sent General Looney a status report on 13 October see Email, Col Susan J. Helms, AETC/ADO-TT, to Ashcroft, "FW: Tech Training Tiger Team Status—13 Oct," 13 Oct 05, w/atc: Slides, Tech Training Metrics, a/o 12 Oct 05.

⁵⁴ Email, Patricia L. Jones, AETC/DOOI, to Ashcroft, "FW: Electronic Principles," 31 Jan 06; Email, Thomas Cacy, AETC/DOOS, to Ashcroft, "RE: Electronic Principles," 1 Feb 06; Notes, Ashcroft, Training Recovery Team Meetings, 3 Oct and 1 Dec 05; Article, "381st TRG Holds First Electronic Principles Class, Raises Money," *Vandenberg Space & Missile Times*, 14 Oct 05, p. A2; Email, Donald W. Selman, AETC/A3TI, to Ashcroft, "FW: TDC/ICAP Courses at Robins," 23 Feb 06; Fact Sheet, "5th Combat Communications Group," from

<http://www.robins.af.mil/5ccg/aboutthe5th.htm> accessed 25 May 06.

⁵⁵ Brfg, 2 AF/DO, "Hurricane Katrina's Impact, 2 Nov 05; Brfg, AETC/DOP, "Weekly Activity Report (WAR) DOP," 4 Nov 05; Article, Susan Griggs, "New 'Shipment' of Students Largest in Two Years," AETCNS, 17 Nov 05 from <http://www.aetc.randolph.af.mil/pa/AETCNS/Nov2005/111705245.htm> accessed 18 Nov 05.

⁵⁶ The airfield operations officer courses at Altus and Tyndall involved a total of 12 students, 6 at each location; the courses lasted from 30 November-16 December. Email, Capt Steve P. Mullins, 334 TRS/ULA, to Ashcroft, "RE: Airfield Operations Officer," 16 Feb 06.

⁵⁷ Email, Col Richard T. Naylor, AETC/DOO, to Maj Alexander I. Smith, AETC/DOOI, *et al.*, "Change in Tiger Team Meetings," 7 Nov 05. When Dr. Ashcroft visited Keesler 2-4 November to conduct oral history interviews for this study, he crossed paths with Colonel Helms.

⁵⁸ Notes, Ashcroft, Training Recovery Team Meeting, 19 Oct 05; Email, Lt Col Chuck F. Watterson, AETC/DOOI, to AETC/DOOI, *et al.*, "FW: Skill Level Waiver for TSgt(S)—Hurricane Katrina," 9 Nov 05; Email, Lt Col Matt A. Tyykila, AETC/DOP, to Col Susan J. Helms, AETC/ADO-TT, "Hurricane Katrina Recovery Plan—Air Staff Message to MPFs," 17 Nov 05 w/atc: Proposed message; Email, Lt Col Brett F. Mayhew, AETC/DOOZ, to Col Susan J. Helms, *et al.*, "FW: Personnel Actions for Keesler AFB, MS, Addendum Number Five," 5 Dec 05; Email, Col Richard T. Naylor, AETC/DOO, to Maj Gen Gilmory M. Hostage, AETC/DO, "Emailing: DOO 16 Dec 05

WAR,” 16 Dec 05, w/atch: Brfg, AETC/DOO, “Weekly Activity Report,” 16 Dec 05. AFI 36-2502, “Airman Promotion Program,” 6 Aug 02, can be found on the Air Force publications website, <http://www.e-publishing.af.mil> accessed 16 Feb 06.

⁵⁹ Notes, Ashcroft, Training Recovery Team Meeting, 2 Dec 05. By mid-February 2006, AETC validated requests for 65 instructors, and AFPC had filled all but one of those requirements. Email, Lt Col Matt L. Crabbe, AETC/A1F, to Ashcroft, “FW: Manning Assists Keesler,” 17 Feb 06, w/atch: Spreadsheet, AETC/A1F, “Keesler AFB TDY Manning Assists,” 17 Feb 06.

⁶⁰ Notes, Ashcroft, Training Recovery Team Meeting, 15 Dec 05; Email, Lt Col Claudia M. Foss, 81 TRW/PA, to Ashcroft, “RE: Katrina Study,” 21 Dec 05, w/atch: Paper, 81 TRW/PA, “Questions,” 14 Dec 05; Email, Col Deborah S. Van De Ven, 81 TRG/CC, to Ashcroft, “FW: Weekly Input to AF/DPPT Tasker: Katrina Task Force and Keesler Status Data,” 11 Jan 06, w/atch: Report, Keesler Status, 12 Dec 05; Email, Col Richard T. Naylor, AETC/DOO, to Maj Gen Gilmary M. Hostage, AETC/DO, “DOO 16 Dec 05 WAR.ppt,” 16 Dec 05, w/atch: Brfg, AETC/DOO, “Weekly Activity Report,” 16 Dec 05. .

⁶¹ Disc, Ashcroft with Diana Bunch, AU/CFAB, 3 Feb 06.

⁶² Intvw, Tuttle and Ashcroft with Maj Thomas Ameluxen, 82 TRW/TO, 8 Nov 05.

⁶³ *Ibid.*; Disc, Ashcroft with Col Kelly Timmons, AETC/CG, 6 Dec 05; Disc, Ashcroft with SMSgt Patti Jackson, AETC/DOPZ, 19 Jan 06; Disc, Ashcroft with Col Ron Farris, AETC/CR, 28 Dec 05.

⁶⁴ Disc, Ashcroft with SMSgt Patti Jackson, AETC/DOPZ, 19 Jan 06; Disc, Ashcroft with Col Ron Farris, AETC/CR, 28 Dec 05; Email, Lt Col Matt A. Tyykila, AETC/A3P, to Ashcroft, 21 Feb 06.

⁶⁵ Email, 12 FTW/CP Randolph Command Center to EA1 Desk, *et al.*; “AETC SITREP Hurricane Katrina 007 DTG 062130ZSep05,” 6 Sep 05; Email, 12 FTW/CP Randolph Command Center to 42 CAT Admin Org 42 ABW/CAT, *et al.*; “AETC SITREP Hurricane Katrina 009 DTG 082301ZSep05,” 8 Sep 05; Email, 12 FTW/CP Randolph Command Center to MSgt Jeff G. Correa, *et al.*, “AETC SITREP Hurricane Katrina 009 DTG 082301Sep05,” 9 Sep 05; Email, 12 FTW/CP to 2 AF/CC, *et al.*, “AETC CAT SITREP Katrina #15 DTG 052229ZSep05,” 15 Sep 05; DODI 1205.13, “Junior Reserve Officers Training Corps (JROTC) Program,” 26 Dec 95.

⁶⁶ Email, 12 FTW/CP Randolph Command Center to EA1 Desk, *et al.*; “AETC SITREP Hurricane Katrina 007 DTG 062130ZSep05,” 6 Sep 05; Email, 12 FTW/CP Randolph Command Center to 42 CAT Admin Org 42 ABW/CAT, *et al.*; “AETC SITREP Hurricane Katrina 009 DTG 082301ZSep05,” 8 Sep 05; Email, 12 FTW/CP Randolph Command Center to MSgt Jeff G. Correa, *et al.*, “AETC SITREP Hurricane Katrina 009 DTG 082301Sep05,” 9 Sep 05; Email, 12 FTW/CP Randolph Command Center to Brig Gen Stephen D. Schmidt, AETC/LG, *et al.*, “AETC CAT SITREP Katrina 018 DTG 192330ZSep05,” 19 Sep 05.

⁶⁷ Email, 12 FTW/CP Randolph Command Center, to 2 AF/CC, *et al.*, “AETC CAT SITREP Katrina #15 DTG 052229ZSep05,” 15 Sep 05; Email, AETC/DSEA Inbox to 2 AF Taskings, “Congressional Tasker:

Keesler AFB Status,” 13 Oct 05, w/atch: BBP, “Keesler Hospital Information,” 13 Oct 05; Intvw, Ashcroft with Brig Gen James J. Dougherty, 81 MDG/CC, 3 Nov 05; AFI 41-105, “Medical Training Programs,” 5 Mar 04.

⁶⁸ Email, 12 FTW/CP Randolph Command Center to MSgt Jeff G. Correa, *et al.*, “AETC SITREP Hurricane Katrina 009 DTG 082301Sep05,” 9 Sep 05; Email, CMSgt Wendi Fischer, KNCOA/CO, “RE: POCs,” 9 Jan 06; Article (unpublished), Jon Sladek, “Maxwell Helps Trainees,” Oct 05.

⁶⁹ Email, Maj Thomas A. Rietkerk, 366 TRS Det 6, to Ashcroft, “RE: Courses,” 20 Jan 06; Article, 1st Lt Michael Adkins, “366th TRS Detachment on Road to Recovery,” *Keesler News*, 6 Oct 05, p. 6. Information about the Training Center and the Interservice Builder Apprentice (Air Force) course is available from <https://www.npdc.navy.mil/csfe/nctcgp/command/command.htm> accessed 25 Jan 06.

⁷⁰ Email, Diana L. Bunch, AU/CFAB, to Ashcroft, “Katrina Storm Information,” 16 Mar 06; Article, “CCAF Postponement,” *Keesler News*, 20 Oct 05, p. 4.

⁷¹ Msg, AETC CAT Director to Air Force Operation Center, “AETC SITREP Hurricane Katrina,” 1300Z31 Aug 05; Email, 12 FTW/CP Randolph Command Center to EA1 Desk, *et al.*, “AETC SITREP 25 Sept 05 DTG 252137ZSep05,” 25 Sep 05; Email, Lt Col Christopher N. Miceli, 45 AS/CC, to Ashcroft, “RE: 45 Airlift Squadron and Katrina,” 4 Jan 06, w/atch: Memo, 45 AS/DO to 45 AS/CC, “Hurricane Katrina After Action Report,” 15 Sep 05.

⁷² The courses, which varied in length from six days to six weeks, were C-21 initial pilot qualification, pilot requalification, senior officer pilot up-

grade, and instructor pilot upgrade. About 200 students attended courses annually.

⁷³ Email, Lt Col Christopher N. Miceli, 45 AS/CC, to Ashcroft, “RE: 45 Airlift Squadron and Katrina,” 4 Jan 06, w/atch: Memo, 45 AS/DO to 45 AS/CC, “Hurricane Katrina After Action Report,” 15 Sep 05; Article, TSgt Francis Kelly, “45th Airlift Squadron Resumes C-21 Training,” *Keesler News*, 20 Oct 05, p. 4.

⁷⁴ Msg, AETC CAT Director to Air Force Operation Center, “AETC SITREP Hurricane Katrina,” 1300Z31 Aug 05; Email, 12 FTW/CP Randolph Command Center to MSgt Jeff G. Correa, *et al.*, “AETC SITREP Hurricane Katrina 009 DTG 082301Sep05,” 9 Sep 05; Email, Connie L. Lisowski, 14 FTW/HO, to Ashcroft, “RE: Katrina,” 17 Jan 06, w/6 atch: 1) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 003,” 1 Nov 05, 2) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 004,” 1 Nov 05, 3) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 005,” 1 Nov 05, 4) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 006,” 1 Nov 05, 5) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 008,” 1 Nov 05, 6) Email, 14 FTW/CP v3 to MSgt Isvan M. Mercer, 14 FTW/CP, “FW: (U) Hurricane Katrina SITREP 013,” 1 Nov 05; Email, Connie L. Lisowski, 14 FTW/HO, to Ashcroft, “FW: Katrina (T-37), 17 Jan 06; Email, Connie L. Lisowski, 14 FTW/HO, to Ashcroft, “FW: Katrina (T-38 Info), 17 Jan 06. While the wing, as a whole, lost two training days, the 48 FTS lost less than one day because

of its training schedule; see Email, Connie L. Lisowski, 14 FTW/HO, to Ashcroft, "FW: Katrina lost days (T-1)," 17 Jan 06.

⁷⁵ Recruiting numbers from Appendix F of the AETC histories; Article, Susan Griggs, "Busloads of Students Herald Training Revival," *Keesler News*, 10 Nov 05, p. 4; Article, "Air Force Meets 2005 Enlisted, OTS Goal," 19 Oct 05, from AETC News Service website <http://www.aetc.randolph.af.mil/pa/AETCNS/Oct2005/101905230.htm> accessed 20 Oct 05. Disc, Ashcroft with Col James Hollingsworth, AETC/A3T, 4 May 06 for the observation about the formation of the Air Staff team. Colonel Hollingsworth was the Chief, Air Force Training and Education Requirements Division until April 2006.

⁷⁶ Recent 81 TRW histories document the development of the student dormitories and construction of new training facilities. See Article, "Base Civil Engineer Discusses 'Elena' Cleanup, Recovery," *Keesler News*, 20 Sep 85, SD 516 in the 1985 Keesler history. Intvw, Cully and Ashcroft with Brig Gen William T. Lord, 81 TRW/CC, 2 Nov 05; Intvw, Ashcroft with Lt Col Shane P. Courville, 81 TRG/CD, 3 Nov 05; Article, "Training Mission Back on Track," *Keesler News*, 22 Sep 05, pp. 1, 24 and Article, Susan Griggs, "Busloads of Students Herald Training Revival," 10 Nov 05, *Keesler News*, p.4; Email, Donald W. Selman, AETC/DOOI, to Ashcroft, "RE: Keesler Visit in September," 12 Jan 06; Email, Lt Col Claudia M. Foss, 81 TRW/PA, to Ashcroft, "RE: Katrina Study," 21 Dec 05, w/atch: Paper, 81 TRW/PA, "Questions," 14 Dec 05.

⁷⁷ Plan (FOUO), 81 TRW, "Full Spectrum Threat Response (FSTR) Plan," 1 Mar 05, information used not FOUO; Intvw,

Ashcroft with Brig Gen James J. Dougherty, 81 MDG/CC, 3 Nov 05; Intvw, Ashcroft with Col Robert Simmons, 2 AF/DO, *et al.*, 4 Nov 05; Intvw, Ashcroft with Lt Col Shane P. Courville, 81 TRG/CD, 3 Nov 05; Intvw, Cully with CMSgt Aliquippa D. Allen, 81 TRW/CCC, 3 Nov 05.

⁷⁸ Intvw, Ashcroft with Col Robert Simmons, 2 AF/DO, *et al.*, 4 Nov 05; Disc, Ashcroft with Col Robert Simmons, 2 AF/DO, 4 Nov 05; Intvw, Cully and Ashcroft with Brig Gen William T. Lord, 81 TRW/CC, 2 Nov 05.

⁷⁹ Email, TSgt Ronald D. Regina, 25 OWS/WXAT, to Ashcroft, 20 Jan 06.

⁸⁰ As early as 7 September the question of converting courses to DL format had been raised; the six courses were discussed during the 6 December Tiger Team meeting. Notes, Ashcroft, Training Recovery Team Meetings, 7, 19 Sep and 6 Dec 05.

⁸¹ Email, Maj Gen Gilmory M. Hostage, AETC/DO, to Col Susan J. Helms, AETC/ADO-TT, "Fw: Enlisted Aircrew Initial Skills Training at Keesler," 16 Sep 05; Email, Maj Gen Gilmory M. Hostage, AETC/DO, to Col Jimmie L. Simmons, AETC/DOR, "RE: DOR WAR 24-30 Sep," 30 Sep 05; Email, CMSgt Catherine A. Brean, AETC/A3RF, to Ashcroft, "RE: Enlisted Aircrew Training," 9 Feb 06, Disc, Ashcroft with CMSgt Brean, 9 Feb 06; Intvw, Ashcroft with Don Aday, 37 TRG/TTA, 18 Oct 05; Email, Col Richard T. Naylor, AETC/DOO, to Brig Gen Jerald Engelman, NDNG, "RE: Keesler AFB Assistance," 2 Sep 05.

⁸² Intvw, Tuttle and Ashcroft with Sammy Miller, 782 TRG/TGA, 9 Nov 05; Intvw, Tuttle and Ashcroft with Chyrel Whelan, 82 TRW/TO, 8 Nov 05.

⁸³ Email, Lt Col Claudia M. Foss, 81 TRW/PA, to Ashcroft, "RE: Katrina Study," 21 Dec 05, w/atch: Paper, 81 TRW/PA, "Questions," 14 Dec 05.

⁸⁴ Email, Patricia L. Jones, AETC/DOOI, to Ashcroft, "RE: Keesler Visit in September," 11 Jan 06, w/atch: "Keesler AFB Visit, 14 Sep 05;" Email, Thomas Cacy, AETC/DOOS, to Ashcroft, "RE: Keesler Visit in September," 11 Jan 06, w/3 atch: 1) "Category 4 Command," 2) Results of Keesler Trip," 3) "New Keesler Pics."

⁸⁵ Email, Maj Andrew Brinkman, AETC/DOOC, to Ashcroft, 13 Jan 06.

Chapter 3

Humanitarian Relief Operations

AETC's efforts to restore normal operations at Keesler AFB occurred in parallel with DoD's Defense Support of Civil Authorities (DSCA) effort, to which the command contributed significantly. Personnel deployed from every AETC base, and, in addition, Keesler, Maxwell, Lackland, and Little Rock AFBs played key roles in hosting large-scale humanitarian relief operations. Other AETC bases contributed on a lesser scale, deploying personnel in support of relief operations or hosting deployed units.

Federal Disaster Response

The federal government had played a role in disaster response since the 19th century, and legislation introduced in the 1950s codified the practice of supplementing, not supplanting, local efforts. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) governed the Federal response to natural disasters, continuing the policy of relying first on state and local resources in an emergency. The Federal Emergency Management Agency (FEMA), the agency principally responsible for managing federal disaster relief, became part of the Department of Homeland Security on 1 March 2003.

Federal assistance supplemented state and local efforts after Hurricane Katrina. Under the National Incident Management System (NIMS), FEMA initiated its operations when a state governor requested assistance, which often occurred after local authorities had exhausted their resources. FEMA's Region IV included Mississippi, Florida, and Alabama, as well as other states in the southeast. Region VI included Texas and the states surrounding Texas, including Louisiana. The principal role of FEMA was to manage, coordinate, and reimburse the efforts of other governmental agencies that provide the bulk of the actual equipment and manpower, such as the DoD, the Department of Transportation, the Department of Health and Human Services, and private companies under contract with FEMA. Often resources were deployed in the general vicinity of an impending disaster in anticipation of a state's request for assistance. FEMA director Michael D. Brown declared a disaster area in coastal Louisiana on 27 August and coastal Mississippi and Alabama the following day.¹

The DoD forces were organized under U.S. Northern Command (USNORTHCOM), a joint command established after the terrorist attacks of

11 September 2001 to control military operations, such as air defense missions, within the territory of the United States. The Air Force's Air Combat Command (ACC), which also provided operational forces for deployment to overseas theaters and was commanded by General Ronald E. Keys, comprised several numbered air forces, including First Air Force, headed by Maj Gen M. Scott Mayes. Both ACC and First Air Force had a second role under USNORTHCOM. General Keys was Commander, U.S. Northern Command Air Forces (USNORTHAF), the Air Force component of the joint command, and General Mayes was commander, USNORTHAF-First Air Force. In a third role, Mayes was also commander, Continental United States (CONUS) North American Aerospace Defense Command (NORAD) Region (CONR). The respective headquarters of U.S. Northern Command, an American-only organization, and NORAD, a U.S.-Canadian bilateral organization, were collocated at Peterson AFB, Colorado. Headquarters, First U.S. Army, with a mission somewhat similar to ACC's—to provide combat-ready Reserve army forces to regional combatant commanders—was the Army's regional planning agency to FEMA in the CONUS.²

On 31 August USNORTHCOM established Joint Task Force-Katrina (JTF-Katrina), at Camp Shelby, Mississippi, under the command of Lt Gen Russel L. Honoré, the commanding general of First Army. The joint task force was tasked “to provide defense

support of civil authorities for disaster relief efforts associated with Hurricane Katrina; in order to save lives, mitigate human suffering and restore critical services” in a joint operational area (JOA) that comprised Louisiana, Mississippi, Alabama, Florida, Kentucky, Tennessee, and Georgia. JTF-Katrina formally specified on 31 August that the Commander, First Air Force, would serve as the Joint Forces Air Component Commander (JFACC). The JFACC reported through JTF-Katrina to Commander, USNORTHCOM. This revised command structure complied with normal operational doctrine. As USNORTHAF-First Air Force commander, General Mayes was also the Commander of Air Force Forces (COMAFFOR) for gained, assigned, and attached forces within the JTF-Katrina JOA. One of the tasks was to provide an Airspace Control Plan (ACP), which the First Air Force's Combined Air Operations Center (CAOC) finally published on 4 September. The Director of Mobility Forces (DIRMOBFOR) arrived at First Air Force on 2 September.³

Keesler AFB and the 97th Air Expeditionary Group

After General Utterback, Second Air Force commander, toured the coastline, he realized the wing's immediate focus needed to switch from reconstituting technical training to preparing the base to support humanitarian aid to the local community. The destruction stunned him. Until that point, the Second Air Force and 81

TRW leadership had thought the damage to Keesler was bad. Compared to the destruction “outside the gate,” the base was relatively unscathed, and General Utterback realized Keesler would become one of the locations from which humanitarian aid would flow to the devastated communities. The surrounding area looked as if “a bunch of nuclear detonations had gone off along the coast,” he recalled. “It was that level of destruction. Some areas looked like Berlin after the end of World War II.” General Utterback knew that restoring airfield operations would be crucial not only to restoring the normal Keesler mission, but also as an aerial link to outside aid that would shortly be pouring into the region. The Keesler CAT assembled a work force to clear the airfield, and the first aircraft were able to land 11 hours after the storm using visual flight rules (VFR).⁴

The local first responders were also victims of the storm, and their fallback position was to rely on Keesler AFB. “We were a lot better off than what the community was and they big time needed our help,” Colonel Robert F. Simmons, Second Air Force director of operations, explained. The base provided fuel for the city’s emergency vehicles and Desert BDU uniform pants for the police. One of the potable water towers was located off-base, and the civil engineers were able to divert some of the base water supply from that tower into the Biloxi water system. Though many of the water mains were out of commission, the diversion allowed the city to establish a few locations where residents could get clean

water. While the wing leadership was working out those arrangements with the city, airmen at all levels tried to help the local community. Colonel Simmons recalled talking with the Security Forces troops on duty, who allowed residents from Biloxi who had access to the base to fill containers from the base’s safe water supply.⁵

Because many Keesler facilities survived the storm, FEMA initially considered the base as a center of humanitarian relief operations. Because of extensive road and bridge damage, however, Keesler was relatively isolated. FEMA therefore selected the Gulfport-Biloxi International Airport (Gulfport IAP) for its primary aerial port for humanitarian relief supplies. The National Guard, with assistance from the 49th Material Handling Squadron, out of Holloman AFB, established a tent city at Gulfport IAP. Though Keesler did not become the primary aerial port for humanitarian relief, the base received medical supplies and also provided housing for relief organizations.⁶

On 2 September USNORTHCOM established an Operational Staging Area (OSA) at Keesler AFB commencing 4 September. Because the base was working to restore its own facilities and needed assistance if it were to host relief workers from other federal agencies, on 6 September, First Air Force established the 97th Air Expeditionary Group (97 AEG), which ACC activated effective 7 September. Colonel Linda R. Medler, Altus AFB’s 97th Mission Support Group commander, assumed



Col Linda R. Medler, 97th Air Expeditionary Group commander, discusses the distribution of relief supplies to Mississippi Gulf Coast communities stricken by Hurricane Katrina (USAF photo by Capt Brady Smith).

command of the 97 AEG with instructions to deploy to Keesler to provide the 81 TRW the logistics and services support necessary to host the civil and military agencies providing disaster relief to the south Mississippi coast, as well as the 82 EMEDS (see Chapter 1) and the 571st Contingency Response Group (CRG) on Keesler. Its mission on Keesler included providing command and control for USAF personnel deployed to the Gulfport-Biloxi area and supporting aerial port operations. Colonel Medler acted as the JTF-Katrina liaison for the Gulfport area and FEMA. The 97 AEG successfully completed its mission on 1 October,

when the last of its personnel departed from Keesler.⁷

When Colonel Medler volunteered for the assignment, she also submitted the names of her 97 MSG staff: the executive officer, group superintendent CMSgt Robert A. Walker, and the civil engineering and services squadron commanders. The latter remained at Keesler to take over the 97 MSG, and the CE squadron commander, Lt Colonel Karl L. Freerks, became the vice commander of the 97 AEG. Because Colonel Medler was taking her staff, the 2 AEG, as it had been tentatively designated, was renamed the 97 AEG before orders were published. Altus AFB supplied a total of 49 personnel to the 97 AEG. The base was postured in AEF 2 and 8. Though AEF 7/8 was deploying in mid-September, the Air and Space Expeditionary Force (AEF) Center tapped into AEF 2 to fill out the remaining spots, which hit Altus hard because the 97th Air Mobility Wing had to fill both requirements concurrently. The 97 AEG eventually comprised 250 people from 20 different installations.⁸

The assignment changed a half-dozen times before First Air Force decided on Keesler as the group's final destination. "By the time I was alerted that I was going to lead the 97 AEG," on Saturday, 3 September, "to the time we got on a plane to go to Keesler" the following Tuesday, Colonel Medler said, the group's destination changed six times. "We were going to go anywhere from Jackson, Mississippi, to NAS New Orleans, to Gulfport, Missis-

sippi, to Maxwell, and we wound up at Keesler,” Colonel Medler explained. Colonel Freerks and his staff did some preliminary planning on the initial destinations. “If we had to put up a tent city, this is what the land looks like, what the roads look like, this is what airlift would have. But as we kept getting different locations, we ran out of time to do that in-depth planning.” Keesler became the final destination after FEMA requested to use it as an OSA, because General Lord needed help in supporting that activity while recovering the base. Once Keesler became an OSA, Colonel Medler explained that FEMA

designated Keesler as a medical operational staging facility, meaning all of the medical supplies for the region were to come into Keesler. The medical supplies were supposed to be sorted and staged from there, and then go out to the 13 different medical sites FEMA had. In addition to that, FEMA [brought] in a lot of other government support—Georgia Bureau of Investigations, Army Corps of Engineers, Mississippi Bureau of Investigations, Florida Fish and Wildlife—a whole host



SrA Aidaliz Lagueux and TSgts Carolyn Farrell and Dawn Daniels sort out relief supplies in Biloxi, Mississippi, as 11-month-old Nasier Dixon waits for his mother to search for children's clothing. Nasier and his mother, Ashea, lost everything to floodwater damage from Hurricane Katrina's devastating storm surge. The three Airmen, from the 305th Mission Support Squadron at McGuire AFB, New Jersey, deployed to Keesler AFB as part of the relief effort (USAF photo by MSgt Efrain Gonzalez).

of organizations that showed up on Keesler.⁹

The fact that most of the dormitory and transitory housing at Keesler survived the storm greatly aided the 97 AEG mission. “We were really lucky because we did not have to build a tent city,” Colonel Medler remarked, and because of that, the unit was operational about three days earlier than it would otherwise have been. “That is what we initially thought we might have to do to house all of the support organizations. Keesler had lodging for that. What they did not have was the ability to manage all of those people and all of the things that they needed.” Another unexpected development was that the 97 AEG was able to use rental cars for many of their transportation needs. Many members of the group flew individually on commercial flights to Montgomery and Mobile, Alabama, and drove to Keesler in rented cars, which the 97 AEG used for mission-related travel.¹⁰

In addition to taking on the responsibility for managing relief workers housed on base, Colonel Medler put her people on humanitarian relief (HUMRO) missions to the local community. “We did both of those things well,” she said. The 97 AEG Mission Planning Cell was in contact with FEMA and the Harrison County Emergency Operations Center (EOC) from the day of their arrival to plan their activities. “We built a mission planning cell to deal with all of the humanitarian relief,” Colonel Medler recalled. “They would get requests, pri-

oritize them, and run them by me every day. I would say, “It looks good to me, go forth and do great things,” and they would. Through 28 September, the group planned and executed 119 humanitarian relief missions over a 1,000 square mile area of coastal Mississippi, distributing 188,000 MREs, 185,000 pounds of supplies, and a quarter-million gallons of water. A relief mission typically consisted of a convoy carrying supplies or military personnel to one or more locations in the local coastal communities. The 97 AEG assisted the U.S. Army Corps of Engineers by serving as Quality Assistance Evaluators, essentially overseeing contractors who installed temporary impermeable coverings, called “blue roofs,” on damaged buildings. The 97 AEG also supported Keesler operations directly. Firefighters deployed with the group supported Keesler flightline operations. In their off-duty time, firefighters and security forces personnel assisted with humanitarian relief off-base. Personnel assisted FEMA by unloading, inventorying, and distributing medical supplies. With 97 AEG assistance, FEMA “went from being only able to support 2 of their 13 medical sites per day, to all 13 every day, because we were able to get this stuff off the trucks, inventory it, organize it, and put it back out to the distribution points,” Colonel Medler explained. “We organized a general FEMA warehouse for them.” Similarly, the group helped the Salvation Army organize their distribution warehouses as well.¹¹

Chief Walker, a former security forces specialist, deployed with the 97



A group of Airmen with the 97th Air Expeditionary Group helps unload medical supplies at one of the Federal Emergency Management Agency's medical assistance team locations along Mississippi's Gulf Coast. The group, comprising Airmen throughout the United States who began arriving at nearby Keesler AFB on 6 September 2005, was established to provide humanitarian assistance to those affected by Hurricane Katrina (USAF photo).

AEG as the senior enlisted advisor. He was the senior leader who was most involved in the hands-on humanitarian work of the group, which was to support civilian agencies off-base who provided food, clothing, and other essentials to hurricane victims, so his observations revealed much of the day-to-day flavor of the work. His empa-

thetic response to the poverty and destruction he witnessed was a window into the experiences of the other 97 AEG Airmen who served in the devastated coastal communities.¹²

FEMA, the Salvation Army, and the American Red Cross had established distribution centers in the Biloxi-Gulfport area, but these warehouses were disorganized and thus a bottleneck to the delivery of goods to the citizens who needed them. Chief Walker, who inspected the facilities and identified the need to fix the problem, explained why.

It was the bureaucracy that was clogging up the pipeline, and what I mean by bureaucracy is generally people like us— employed people who usually plan. If my house is wiped out, then I get one of my brother's cars, go to my savings account, and I square my family away until my insurance kicks in to make things happen. And then pursuant to that, if there are distribution centers in the Lawton or Oklahoma City or Fort Seale area, we drive to those and load up our vehicles with goodies, and we go

back to the hotel or relatives' house and live happily ever after. That is how FEMA had set up the majority of their distribution centers, and that is how the Red Cross set up their centers. But what no one was doing was going into the bowels of the neighborhood, where the major devastation was, where the old people lived and poor people lived, where the senior citizens homes were. When we did that, we found that people did not have the insurance, or the brothers' cars, or the means by which they could get to the distribution centers.

Colonel Medler sent Chief Walker out to establish smooth-running distribution centers. He had been responsible for logistics before. "I know what a supply line was supposed to look like. We were supposed to get things out from the warehouse, into the vehicle, and to the people that are asking for them," he said, snapping his fingers for effect, "quickly." The distribution centers lacked the manpower and organization to operate efficiently. "When I went to the distribution point, what I found were two senior citizens that had a warehouse full of things that were not organized," Chief Walker continued. "If you can imagine going to supply and saying 'I need boots, a helmet, a flak vest, and a rain coat' and they start digging through one box, instead of going to a shelf and bringing you things." The relief agen-

cies were getting supplies to the Gulf Coast, but they were not able to distribute them expeditiously to residents.¹³

Having volunteered to do something for people, Chief Walker joined the Airmen under his supervision, who were laboring in the summer heat. He enjoyed the opportunity.

My title was command chief, but I took off my blouse every day, rolled up my sleeves, and I went to work. I ripped up about three uniforms, and tore up boots. [I] did not sit in the office...on Colonel Medler's staff waiting to get directions, or give her the insight on what we were doing, get approval, those things. I spent every day working outside with the troops. Unlike here, if I did that I would get fired, because all of the paperwork would back up and everything would be late! The big difference is that I was able to get out and get with the people, and I felt like I made a difference, rather than just being an administrator.

Chief Walker described a typical day as starting with an 0630 meeting with Colonel Medler to determine whether the group had any new tasks. Then, at 0715, there was a

roll call with 150 folks where we would give out prospec-

tive jobs: [one group] going to site A and delivering food, [another] group was going to the blue roofers contract...[another] group was going to debris pick up, and [the final] group would take a rest because you have been working for 10 straight days. That was an average day. By 8:30 I could see us in a warehouse organizing food that was coming in from all over the US – that you probably saw on the news, backed up on the highway and being turned around. When it finally got to us, they were not organized, you saw giant boxes the size of my desk with canned goods, baby foods, clothes, and blankets. We had to separate those and create pallets of each, like a grocery store warehouse, so that you could bring in a fork lift and get what you needed. That is what the average day was like, about 14 hours from the time you woke up to the time you went back to the gates.

Troops on the ground, motivated to help their fellow citizens, were frustrated by the delays and confusion caused by the time it took to set up a smoothly-running command and control organization and work out procedures never used before in the United States. Chief Walker summed up their frustrations.

I was frustrated because we were there a week later. We are in America; we knew this hurricane was coming. It did not just pop up over night, and I am riding in a truck through the city and people are asking me to help them do things 7-8 days later, that we are doing every day in Iraq. That is what was bothering me. I was committed to not sleeping until we got food and shelter to them.¹⁴

Despite the frustration, Chief Walker never met anyone who wasn't trying to help.

I did not meet anybody who said, 'I am not doing anything. I don't want to be here.' But what I saw was that they did not have a sense of urgency, like the medical supply guys. They looked very old to me. I am not sure how much urgency you could have at 65 years old in 105 degree heat and no cover, unloading [7 or 8] tractor trailers.

He criticized FEMA for not being structured to deliver aid efficiently. "If I task two old men to do that – the question for me is – how serious was I about getting this stuff unloaded?" he asked rhetorically.¹⁵ Nevertheless, everyone was motivated to help.

And not one military person, not one Red Cross worker,



Col (Dr) Ann Farash examines 19-month-old Alexia at a treatment facility set up outside the Garden Park Medical Center hospital in Gulfport, Mississippi. Dr. Farash, a pediatrician, and other medical providers with the 81st Medical Group from nearby Keesler AFB worked with the Federal Emergency Management Agency to provide medical care to victims of Hurricane Katrina (USAF photo by MSgt Efrain Gonzalez).

not one person that was searching for bodies, not one time did I hear anybody complain and say that they were ready to go home, or that this did not make any sense. This is the first time that I had not heard people complain or be angry at the end of the day because the sun went down and they had to stop working.

While state and federal disaster officials attempted to figure out where best to send aid to the utterly devastated area, the 81 TRW Chaplain, Col Steven Sill, directed Air Force supply

convoys to local churches, knowing that poor and elderly residents lacking any means of transportation other than to walk, would go to those locations first. Before the storm, Keesler chaplains had a good relationship with churches and religious organizations off-base, but the humanitarian crisis was a catalyst to increase their network of off-base contacts, in the words of Chaplain Sill, “to build up a network of support so that the Air Force could move out into the community and provide support where it was needed.” The residents of the Mississippi Gulf Coast communities went to their local churches for assistance, and the churches sheltered many citizens

whose homes had been destroyed. As Chaplain Sill put it:

The county, the city were all doing the best they could but they did not have staff to make decisions so many times, the only information that was coming in was by word of mouth. Still telephones weren't working, cell phones weren't working so you literally had to get out and go from place to place and see what was going on. There was very little presence of other agencies, people had not arrived yet.

Within a few days, the 81 TRW chaplains, bolstered by 12 additional chaplain service personnel who deployed to Keesler after the storm, began to move through the community. They realized that many of the churches were in dire need of food and medical supplies, and the wing dispatched trucks and medical teams. "Sometimes we would take a whole truck load of things and a day later they would be completely out again because the need was so great," Chaplain Sill recalled.¹⁶

At its peak, the base supported about two dozen shelters, as well as providing medical assistance. Chaplain Sill explained that Keesler naturally wanted to help the local community.

As with any crisis, people jump in and do what needs to be done, and then eventually

the system catches up and bureaucracy begins to do its thing, but what I think the Air Force did very well here was to be flexible enough to find the needs and meet them without having to take a long time to do it. We were here, we were neighbors, and so we wanted to be involved.

The operation was directed by the 81 TRW and the 97 AEW for a few weeks, until FEMA took over the larger humanitarian relief in the area.¹⁷

There were several episodes in which Chief Walker and the Airmen of Keesler and the 97 AEG had to face the poverty in the local area, an experience that affected all of them deeply. "I saw some of the most disenfranchised Americans that I have ever seen in my 24 years of being in the military," Chief Walker said.

It was at one of those churches where Chief Walker experienced his most inspirational moment in the mission.

The first was that we were in church and had just made a major delivery. When I say major, I mean a flat bed [truck] full of goods, cleaning supplies, blankets, those things. The flat bed was blocking the street and we were asking one of the passengers if we could just take over and reorganize this stuff for them, and the people that



CMSgt Robert Walker (center) meets with representatives of the Salvation Army to coordinate assistance provided by the 97th Air Expeditionary Group operating out of Keesler AFB, Mississippi, in September 2005.

were doing it just to let them sit down so we could go faster. He said yes.

There were two old ladies that were picking up boxes of canned foods, they were in their 70s, reminded me of my grandmother, and I asked one of the ladies to step to the side, and we were bringing some things in so she would not have to pick food, she could just take a case of whatever she needed. She said that she had gone to an assisted living home, taken 18 people out of there, and they were all in her house, and

they did not have any food, and many of them needed Depends as they did not have bladder control, and all of the things she had gone through, people had picked over, and there was not anything there. She started crying.

I felt really good because I told her that we were going to take good care of her. 'You get back in the car, follow us to another place, and then we will get your name and we will make sure everybody that you need taken care of will be taken care of.' I took her to a pastor who we were

*supplying that was a lot more organized, and he took down her name and number, and loaded a car, and he assured me that they would check on these people weekly until they were back on their feet. I felt like that was God's work. If the troops had not been around, I would have been crying too. That is how good it felt.*¹⁸

In another instance, Chief Walker met the local Vietnamese community, who worked primarily in the fishing industry.

They lost all of their boats and their houses are right on the water, so everything within the first four miles is gone. It is not there. I went to the Salvation Army in the heart of the black community, and I saw a little Vietnamese girl...we named her Lollipop, and her family; and they sat round what we called a roach coach. That is how they ate everyday.

The first day I came it seemed like they were afraid of me; they would not really talk, but I got a conversation going with the mother and the child. I never saw a male. After about the third day, I would tell the Air Force guys from Altus that we would leave at that center to distribute food, that if they ever

pulled up in a car, to make sure and load the car up, because they seemed a little standoffish. It was obviously because the Vietnamese community and black communities, nobody is embracing them. So we are going to embrace them.

About the third day when I came back, the little girl, Lollipop, was pointing at me, and the mother grabbed me by the hand. I did not know her name, but she did not speak English. She took me to another guy who was a Vietnamese pastor. We had dialogue and he told me what was going on, and that his people were kind of standoffish because they did not feel comfortable taking food and all of that. That was about the time that people from Altus came in, PA, and somebody from the local news at Lawton. I took them back to the area, and lo and behold Lollipop and her mother were there, and the pastor was there. I talked to them and I told them they were getting food in the community, and [a reporter] said... to take a picture of someone in the community. So Lollipop's mom pushed her out there, and we took a picture. Keep in mind in the beginning of the week they would not even talk to me. So



U.S. Air Force personnel from Keesler AFB, Mississippi, delivered needed food, supplies, and water to local churches in Biloxi, 6 September 2005. The donations were distributed to residents in the Biloxi area who were affected by Hurricane Katrina (USAF photo by TSgt Jennifer C. Wallis)

that was a tear jerker, because they did not have anything. They had a tent on [a local] football field.¹⁹

After FEMA took over humanitarian relief, and other agencies were handling delivery of basic supplies like food and water, base volunteers continued to support the communities within 20-25 miles of the base, mainly Biloxi, Gulfport, D'Iberville, and Ocean Springs, for many months. General Lord directed the Chaplain to organize

the volunteer effort. Between 30 and 200 people a day, both students and permanent party personnel, went out into the community to unload trucks, clear the homes of the elderly, and to help out in any way possible. "Overall since the time of the storm, there have been hundreds of missions, just tons and tons of supplies distributed, and thousands and thousands of man hours of volunteer help provided," Chaplain Sill explained.²⁰

In reflecting on the experience, Chaplain Sill emphasized that the Air Force and relief agencies needed to plan for a large disaster.

I think that we were not picturing anything like this happening, and we were kind of overwhelmed. The military...frequently exercises, we frequently prepare, be it for a bomb attack, or a natural disaster or whatever else, and sometimes we only take those preparations to a certain level because we think that is adequate, and I think here we thought our preparations were adequate and what we found out is they were adequate for a little hurricane but they were not real adequate for a devastating one. So I would say take your preparations one notch more than you think you could possibly ever need.²¹

Another of the lessons learned in the operations, Colonel Freerks believed, was that key Air Force leaders needed to be more familiar with civilian emergency response terminology and the National Incident Management System organizational structure.

And that's applied even at the local level when you start talking about disaster control groups, crisis action teams. We're the only ones that use that type of acronym or those types of phrases. The rest of

the world uses terms such as incident commander. They use emergency operation center; they don't call it a command post. They use the National Incident Management System. They use that terminology so that a fire fighter in Louisiana can talk to a police officer in New York, and they all understand the same [jargon]. We are learning that; DoD and the Air Force are adapting to that now.²²

In addition to orchestrating humanitarian missions off-base, the 97 AEG relieved Keesler of some of the responsibility of providing services to relief organizations temporarily quartered on base. At Keesler, the group worked to consolidate all outside agencies into one dormitory area, so that they would be easier to manage. When the 81 TRW decided to resume technical training, 1300 members of the 97 AEG and other relief organizations had to relocate from the student dormitories they had been housed in. This created challenges for Colonel Medler and her services troops, who had to reshuffle the personnel, but they were successful.²³

The remaining AEG members were scheduled either to depart Keesler or to CHOP to the 81 TRW no later than Saturday, 1 October 2005. The command post shut down effective 1800 hours (local) on 30 September. Fittingly, the last two HUMRO missions were to send out eight AEG

personnel as quality assurance inspectors to the Army Corps of Engineer's Blue Roof project and six to remove debris from the yard of an elderly retired military person's home before returning five borrowed vehicles to Keesler. The unit had completed its mission as USAF liaison at Harrison County, Mississippi, EOC, and returned primary responsibility for future requests to Chaplain Sills, who directed the remaining 275 or so HUMRO personnel from various agencies, including 60 U.S. Navy Seabees and 149 Army Corps of Engineers personnel, who were consolidated either in one dorm or in base lodging at Keesler. After the departure of the 97 AEG, Keesler continued to support the local community with volunteers, as mentioned previously.²⁴

General Looney praised Keesler's humanitarian relief efforts.

From the prospective of responding at Keesler, I thought our response exceeded all expectations of what could be expected in such a situation. I could not have been more pleased. We had Keesler up and running to the point where [humanitarian relief organizations went] to Keesler to operate out of [that location]. They stayed in our Q's [on-base quarters]. They were fed in our dining halls. They communicated through our gear. Everything was as though Keesler had not been touched

by the hurricane, and this was the base everyone was using to leap off and do the things they had to do. I thought we did a magnificent job.

Obviously proud of the command, General Looney particularly singled out the work of the Keesler community. "I don't say that from the way [the effort] was led here at AETC, I am talking about the response there—General Utterback and General Lord all the way down to the newest Airman that volunteered to stay."²⁵

National Disaster Medical System

AETC supported the National Disaster Medical System (NDMS), part of FEMA, which managed and coordinated the Federal medical response to major emergencies, including natural disasters, providing medical care to victims and first responders alike. Responsibilities included not only the deployment of personnel, supplies, and equipment to a disaster area to augment local resources, but also patient evacuation and medical care at facilities that accept evacuated patients. The 314th Medical Group supported NDMS operations established at Little Rock AFB and the Central Flying Service adjacent to Little Rock Airport. Lackland began its involvement in humanitarian relief by receiving patients evacuated by air from Gulf Coast hospitals to the San Antonio area. When the NDMS mission kicked off, doctors, nurses, and litter-bearers set

up a medical triage center in a flight-line hangar. During the first 5 days of

September, support-recovery teams transported patients arriving at Lack-



Lackland AFB's Capt Mike Dixon and SSgt Lina Gamez reassure an elderly patient who survived Hurricane Katrina. They were traveling aboard a C-17 Globemaster III from New Orleans on 1 September 2005. Captain Dixon, an intensive care nurse with the 59th Medical Wing, and Sergeant Gamez, a respiratory therapist with the 759th Surgical Operations Squadron, teamed up with an activated Reserve C-17 crew from McChord AFB, Washington, to provide aeromedical evacuation for ambulatory and critical care patients (USAF photo by MSgt Lance Cheung).



Air Force medics battle the heat and humidity to treat patients being evacuated from New Orleans on 2 September 2005 (USAF photo by MSgt Jack Braden).

land AFB to medical facilities throughout San Antonio.²⁶

In addition, the 59 MDW at Lackland AFB supplied 18 pallets of equipment and supplies to an EMEDS+25, part of the Medical Rapid Response Force (MRRF) operation at Louis Armstrong New Orleans International Airport, which medically screened approximately 10,000 evacuees on 2 September alone and air-evacuated over 800 patients. Critical Care Air Transport Teams performed the patient transfers. The CCATT personnel also worked with numerous civilian agencies, most notably the Disaster Medical Assistance Teams (DMAT) at the Louis Armstrong Airport.²⁷

There were several lessons learned in the operations. Because the 59 MDW was limited to only two operational CCATT equipment sets, it had to use War Reserve Material and hospital stocks to supply the remaining teams from the wing, as well as teams arriving at Wilford Hall Medical Center from Andrews, Wright-Patterson, Nellis, and Travis AFBs. This equipment had been designed for the type of patient the military was likely to see in combat: young, otherwise healthy individuals with traumatic injuries. By contrast, the Katrina victims the CCATT teams cared for were typically older and suffered from cardiac disease, kidney failure, and diabetes, but standard CCATT medical equipment did not contain insulin or equipment to measure a patient's blood sugar level. A

significant number of patients were experiencing symptoms of alcohol and drug-related withdrawal. In a technical matter, the teams discovered that batteries in the WRM equipment required more than the available amount of time to recharge.²⁸

Furthermore, the DMAT teams who triaged patients at the New Orleans airport were not familiar with the capabilities and limitations of CCATT crews and did not identify patients suitable for air evacuation. Moreover, the teams left the aeromedical evacuation hub at Lackland AFB without guidance from the Tanker Airlift Control Center (TACC), which did not take control of CCATTs as soon as they were tasked for the operation.

Though successful, the deployment of CCATTs was hampered by the same command and control difficulties of the entire hurricane response. One problem with the operation was that AETC lacked a Time-Phased Force Deployment Data (TPFDD) database. The TPFDD is a computer-supported Joint Operations Planning and Execution System (JOPES) database that lists the forces, beddown locations, and movement requirements for the forces of a particular operational plan. The database provided a list of forces, non-unit supplies, personnel, and transportation plan in a common system understood by planners. A TPFDD would have established what supplies, equipment, and personnel Keesler required and facilitated their orderly deployment.

The problem was manifest after NORTHCOM authorized several organizations to task units verbally. These organizations included the Global Patient Movement Requirements Center (GPMRC), a joint services activity reporting directly to USTRANSCOM and responsible for the regulation and movement of uniformed services patients from overseas or within the continental United States, as well as First Air Force and Air Combat Command. Consequently, these organizations bypassed the AETC CAT and the AETC Surgeon. NORTHCOM did not provide a copy of this authorization to AETC until a day into the recovery. Furthermore, because AETC did not have access to NORTHCOM's TPFDD (345DD), the command sent personnel in a manning assistance TDY status rather than in a deployment status, complicating accounting, transportation and movement control, and eroding their visibility in the overall operation. The lack of a TPFDD also complicated medical logistics. Multiple agencies requested supplies from the 59 MDW, and transportation to move pallets to the flight line was accomplished *ad hoc*, relying on personal phone calls and email rather than on official channels.²⁹ Despite the difficulties, the CCATT teams arrived on scene and quickly identified and evacuated critically ill patients from the stricken Gulf Coast.

The arrival of aircraft at Lackland, like in so many missions in this operation, was *ad hoc*. "We couldn't get a good read on when the aircraft would



Volunteers line up at Lackland AFB's airfield to assist arriving patients arriving in Texas on an Air Force C-130 from the areas affected by Hurricane Katrina. Military and commercial aircraft also transported nearly 10,000 displaced people to Lackland, where they sheltered in facilities set up at KellyUSA.

arrive,” explained Col Bonnie Lind, an individual mobilization augmentee (IMA) reservist who served as the 37th Training Wing vice commander during the crisis. C-130s started to arrive on the second day with non-ambulatory patients from New Orleans hospitals and nursing homes. The patients rode on stretchers in the back of the aircraft, and ambulances awaited each aircraft’s arrival. Some required immediate medical attention and went into the hangar to be stabilized before being transferred to local hospitals.³⁰

Lackland AFB and Displaced Americans

After the levees broke and the evacuation of remaining New Orleans residents began, the wing took on a second mission. In the afternoon of Thursday, 1 September, Brad Harris, the FEMA representative working with the base on the NDMS mission, called Colonel Lind to tell her to turn on the television to watch the news. She tracked down the 37 TRW commander, Col Mary Kay Hertog, to watch what was presumably something important. The two women discovered to their amazement that thousands of

displaced persons were coming to San Antonio, to be sheltered at KellyUSA at the invitation of the city's mayor, and that the first planeloads would arrive at 0900 the next morning! As the mayor spoke, Colonel Lind recalled, "there we stood with our jaws wide open." The city of San Antonio volunteered the use of warehouse space at KellyUSA, which the city of San Antonio owned after the BRAC closed Kelly AFB. Lackland had leased back some of the facilities and the runway, and so a portion of KellyUSA was under Air Force control.³¹

Colonel Hertog started making phone calls. The 37 TRW activated its CAT and briefed the team that KellyUSA had been identified to receive hurricane victims, and that Southwestern Bell Corporation (SBC) was standing by to install 1,000 additional telephone lines (and would pay the long-distance charges). Suddenly, Lackland had two humanitarian relief operations underway, both of which required the 37th Operations Support Squadron (OSS) to support the arriving aircraft. The 37 OSS was small and didn't normally support 24-hour operations. The wing was unable to



Medical personnel assigned to Lackland AFB, Texas, and first responders from the city of San Antonio receive patients at the Kelly flight line who evacuated by air from Louisiana and Mississippi. The patients were triaged and transported to area hospitals.



Airmen Yohanna Tucker helps A1C Daniel Morton put one of about 2,500 cots together at KellyUSA to house people displaced by Hurricane Katrina. In all, 200 Airmen from nearby Lackland AFB helped tear down modular office furniture in a 350,000 square foot building and set up the cots. Many of the Airmen were scheduled to begin training at Keesler AFB, volunteered when their training courses were postponed. Airman Tucker was assigned to the 331st Training Squadron, and Airman Morton was assigned to the 323rd TRS (USAF photo by TSgt J. C. Woodring).

borrow control tower personnel from Randolph, because the FAA required a two-week certification process for an air traffic controller to operate on a specific airfield. With no way to augment them, the wing had to handle operations with the existing personnel. Mandatory crew rest periods were monitored closely.³²

The *San Antonio Express-News* reported that evacuees would be arriving on Friday, 2 September to occupy

shelters in Buildings 1536 and 171 at KellyUSA. San Antonio Mayor Phil Hardberger had agreed to receive part of the 25,000 refugees Texas Governor Rick Perry had offered to take. Building 1536 had once warehoused aircraft components, shipping materials, and weapons for the former Kelly AFB. San Antonio public works employees spent Thursday night grinding down bolts that protruded from the concrete floor. City employees, mainly police and firefighters, as well as volunteers from San

Antonio, including Mark Hostetter, a civilian employee at the Air Force Manpower Agency at Randolph AFB, worked through the night to prepare a second building.

The task we faced was dismantling and clearing out literally hundreds of desks from several contiguous rooms. The [base civil engineer] briefed us on what we needed to do, and our small crew began the arduous work of removing desks, chairs, walls, light fixtures, file cabinets, and the like. The manufacturer was called in to help because of the special tools needed to disassemble the furnishings. By that time more police and firefighters had arrived, no doubt pulling double shifts to assist.³³

By the early hours of the morning, however, it was clear that the work would not be finished in time.³⁴

The events log showed that at 0240 on 2 September, the San Antonio fire department requested manpower to assist with the set-up of Building 171 on KellyUSA. The CAT worked the request through Colonel Hertog, who ordered the 737th Training Group to rouse 180 people from their beds shortly after 0400, when another call came in requesting the base provide showers for 1,000 people. All 180 volunteers were working by 0615. Colonel Lind explained.

It was a city mission and the city was handling it, but at 3 o'clock the next morning, the city called Colonel Hertog to beg for support in putting together the shelter building. 'Can you send over 200 people?' And we could! Colonel Hertog called over to BMT, and new graduates who were on hold waiting to depart to Keesler for training were asked to volunteer. It was their first liberty weekend, but they gave it up to help out. The building had office partitions set up, so they took the walls down, hauled furniture out, and set up cots. They worked long hard hours, and another shift went in.

It was the start of a three-day effort. The American Red Cross assisted in creating the necessary services to make KellyUSA suitable for some of the displaced persons to live in the weeks ahead. Others transited through the camp; some, who had been stranded in New Orleans as visitors, returned to their homes. Though the city of San Antonio managed the operation, the 37 TRW support was critical to its success. The work was completed just in time. The command post had notified the CAT just minutes before (at 0348) that the first flights would arrive starting at 1045 that day. The full CAT met again at 1000. It was a busy night.³⁵

The next day, aircraft started arriving. Colonels Hertog and Lind were



Displaced residents of New Orleans arriving at Lackland AFB, Texas, where they sheltered at KellyUSA.

on the flightline. “People were coming off the plane,” Colonel Lind recalled, “and they didn’t know where they were. They were just being herded aboard aircraft,” some of which were going to San Antonio, others to Houston and other destinations. Passengers deplaned, entered a hangar set up as a reception area, and the aircraft took off for another mission. About 40 city and Lackland folks met the displaced persons to help them off the plane, to greet them, and to answer their questions. “They were so happy to be in a place where they were safe,” Colonel

Lind explained. It was hot, and they were thirsty, but the base had water on hand. “This went on for 55 hours and 89 aircraft, about 10,000 people,” she recalled.³⁶

On 2 September, after the first plane had arrived, USNORTHCOM formally approved the air transport of an estimated 10,000 displaced personnel from New Orleans to San Antonio, as part of an overall effort to evacuate between 30,000 and 60,000 people from the flooded city. The wing complained of a lack of command and control from FEMA, which had too little information on the arriving flights.³⁷

The people coming off the airplanes were from all walks of life. “We got the whole gamut of people,” Colonel Lind recalled, from tourists vacationing in New Orleans to residents, including a man who had just closed the purchase of his house and had to cut a hole in the roof to escape. A lot of special needs people also arrived, who couldn’t or didn’t evacuate before the storm. Many were not ambulatory. “We had stretchers and wheelchairs to move people from the aircraft to the flightline,” Colonel Lind explained.³⁸

A deaf man came off of one airplane, and someone brought him to Colonel Lind. “Do you sign?” he asked her—“as if a Colonel were supposed to know everything,” she exclaimed in a

later interview. She handed him a notepad. His first question was, “Where is the hotel?” She explained he was going to be bussed two blocks to the shelter. He had more to say, and he had had no one to whom to express his feelings, so he wrote a few things and waved his arms to say how big the storm was. “I think he wanted to share that with someone,” Colonel Lind remembered, “It was important for him.” He didn’t have a suitcase (most people carried what possessions they had—often only the inflight magazine—in a plastic bag). “I wished him good luck and gave him a hug.” The wing had Spanish-speakers on the flight line, but was unable to provide translators for the Creole or Vietnamese speakers who deplaned. “Most of the people were very appreciative of the attention they received here, compared to how they had been treated in New Orleans,” Colonel Lind believed. The base got the word to call the arriving people displaced persons rather than evacuees. “We should call them ‘New Texans,’” quipped one officer on the flight line. Colonel Lind predicted, “I think that we’ll see a lot of people will make San Antonio their home, based on the hospitality they received here.”³⁹

Volunteers, who were permanent party personnel at Lackland, spend their Labor Day weekend holiday manning the reception area. “If you’re doing something you believe in, it’s easy,” Colonel Lind explained. “It was good being out there, knowing I was helping these people. I was working off adrenaline.” The senior leaders made certain one of them was on hand at all

times. “I made a special effort to be there when Colonel Hertog wasn’t,” Colonel Lind explained. “We always had a senior officer on site to ensure that everything went smoothly.”⁴⁰

Having a senior leader on hand was important for diffusing tense situations. Some folks were belligerent. In one instance, a man was “mad as hell and not going to take it anymore. He started taking it out on somebody,” Colonel Lind said, “and I stepped in so he could take it out on me.” He was upset that he was being “treated like a prisoner.” Colonel Lind explained to him that the inspections were to keep the displaced persons safe, not to treat them like criminals. He feared being confined to a shelter. “We weren’t keeping anybody. Once you checked in, you were free to go,” she explained. The city managed the accountability of evacuees.⁴¹

The busses, both city and church, were lined up and ready to take people from the reception area to the converted shelter buildings. The drivers worked long hours to shuttle people from the flight line inspection area to the shelter.⁴²

At Lackland’s afternoon CAT meeting on 3 September, the 37 TRW reported that they had received 8,300 passengers on 64 aircraft on 2 September. They also reported insufficient busses from the city to move passengers efficiently to the KellyUSA shelter buildings.⁴³ By 1000 the next morning, 9,592 civilian evacuees had arrived, and 1,000 more were expected

throughout the day.⁴⁴ After the last flight arrived on 4 September, the total was 9,888.⁴⁵

The American Red Cross, Salvation Army, San Antonio Food Bank, and the South Texas Blood and Tissue Center played key roles in creating the camp. In addition to the free telephone service from SBC, H. E. Butt (HEB) Grocery Company donated a convoy of trucks carrying food supplies, and Time Warner Cable supplied digital phone, cable, and high-speed internet service, as well as televisions, for the shelters. Both Time Warner and SBC donated computers.⁴⁶ Lackland supplied the city with tractor-trailers for moving supplies, and 175 airmen for two nights assisted in shelter tear-down and set-up. The base provided the Bennett Fitness Center facility to evacuees to take showers, and the civil engineers built a temporary shower facility. There were big-screen TVs set up, and banks brought in automated teller machines. Entertainers came out, and the Band of the West played (though were disappointed in the low attendance, due to the fact that the concert was outdoors on a hot day typical of summer in San Antonio). It was a miniature city. The San Antonio city government established job banks and routed buses through KellyUSA.⁴⁷

The memorandum of agreement between Lackland and FEMA said the disaster relief agency needed a hangar, with chairs, tables, and portable restrooms for the NDMS mission, but they ended up asking for “a huge list.” At an after-actions meeting with Brad Harris,

the list of things the 37 TRW actually provided to the FEMA operations was huge. The 37 MSG provided 400 chairs, ice, and water to support flight line workers. Food service workers provided 3,200 MREs and 2,000 flight meals to relief teams deploying from Kelly Field to the hurricane-ravaged areas, as well as supporting the crews of the military and civilian aircraft transporting displaced Americans to the base. “It was an amazing, amazing effort,” concluded Colonel Lind.⁴⁸

Base security was a concern, because some of Lackland’s facilities were outside of the perimeter fence. Of equal concern was the security of the refugees themselves. “It was a great concern to protect the safety of the people,” Colonel Lind explained, so San Antonio police inspected the refugees by leading narcotics and explosives detection dogs through the queues. They were given amnesty if they abandoned contraband weapons or drugs on the airplane. The “new Texans” were not given access to Lackland AFB. The city asked if the base could grant the evacuees commissary privileges, but civilians did not have access to the base. Instead, AAFES set up a shopette near the shelters. Colonel Hertog, though noting there was no evidence the increased base population was creating any unusual problems, nevertheless encouraged base residents to take the usual precautions of locking their doors and leaving their house lights on. “Bottom line,” she said, “use common sense and do what you should be doing every day.”⁴⁹

The additional security forces patrols had proprietary jurisdiction on KellyUSA, which meant their primary responsibility was to ensure the security of all government owned and leased property and to protect DoD personnel. The state retained sole legislative authority, though the SF forces could detain civilian personnel whom they observed tampering, damaging, destroying, or breaking into government facilities or posing a threat to DoD personnel working or living in government owned or leased facilities. If a suspect attempted to flee, or had been observed committing a crime unrelated to government property or personnel, the SF personnel were instructed to notify the San Antonio Police Department while pursuing the suspect at most 100 feet from their assigned patrol area.⁵⁰

Chief Ellison, in reflecting on the exceptional work done at Lackland AFB to respond to the crisis, emphasized the expeditionary mindset of AETC.

We were in an expeditionary mindset. They set up their tents out there and they processed folks through the tents as they triaged many of the residents as they came in as if they were in a wartime environment. They were trained to do it, and they did it very well. I could not have been more proud of [Brigadier] General [Mary Kay] Hertog and her people: the security forces and medical

folks that were involved, and the volunteers who came out of the woodwork to say 'count me in! We'll be here to help.' I think it was one of our finest hours. They stepped up and did just a great job at Kelly.

The expeditionary mindset of the command therefore did not just apply to those who deployed to the Mississippi Gulf Coast, Chief Ellison noted, but also the people who, in his words, “deployed in place” to respond to the humanitarian crisis.⁵¹

Maxwell AFB

In addition to the safe haven it provided to Keesler evacuees, Maxwell supported humanitarian relief operations. Two aspects of the Maxwell experience were particularly noteworthy: first, the 42 ABW and AU supported relief operations with no impact to the training mission at Maxwell AFB. Secondly, implementation of the lessons learned in previous hurricane relief operations, especially Hurricane Ivan in 2004, meant that supporting FEMA was a routine matter and went smoothly, allowing the staff to focus their efforts on sheltering refugees and supporting military units engaged in HUMRO operations.

About three years before Hurricane Katrina, the 42 ABW plans division recognized that Maxwell AFB, regularly called upon to support hurricane relief operations, needed to

establish a good working relationship with FEMA and the state of Alabama's Emergency Management Agency (AEMA). The base signed a Memorandum of Agreement (MOA) outlining cooperation between Maxwell and the AEMA in April 2004.⁵²

Experience with Hurricane Ivan in 2004 had taught the 42 ABW valuable lessons in supporting 24-hour operations, during which FEMA processed 1,263 trucks on base property. Maxwell served as a dispatch center for commercial trucks that were contracted to carry aid to areas damaged by hurricanes. The experience revealed that FEMA had insufficient support facilities for the contract drivers and trucks stacked up on the base. After Hurricane Ivan, the 42 ABW worked closely with FEMA to refine the operations, and the organizations worked out a Memorandum of Agreement in which FEMA would pre-position enough supplies to start the operation and provide logistics support for the truckers without relying on the base infrastructure. Maxwell in turn would provide space for the trucks to park and provide office space throughout the hurricane season for FEMA representatives to use.⁵³

The procedures were further refined after hurricane Dennis in July 2005. During that operation, FEMA Region IV deployed an Incident Management Team to Maxwell 3 or 4 days prior to the disaster declaration, which helped the base coordinate support to their operations. In addition, FEMA

pre-positioned sufficient supplies to start the flow of relief trucks, and Maxwell provided Bldg 1154 as a FEMA control center during the hurricane season. After meeting with FEMA and USNORTHCOM representatives in early August 2005, Maxwell AFB had drafted an MOA with FEMA's Region 4 just before Hurricane Katrina struck the Gulf coast.⁵⁴

On Sunday, 28 August, FEMA met with the 42 ABW to brief them on their preparations for the storm. "What we saw [from FEMA] with Katrina was a very professional, very proactive approach," Lt Col Stephen Estock, 42 ABW director of plans and programs, recalled. By the time the mass of trucks appeared at Maxwell, FEMA had a team in place, with support from the AEMA and Alabama National Guard to log them into their tracking system and bed them down before the storm hit. "They became pretty much a self-sustaining operation from right off the bat," Colonel Estock explained, because of the prior coordination between the wing and FEMA. Previously, the Maxwell CAT had supported the FEMA truck drivers, but with the better pre-coordination, the Maxwell CAT could focus on assisting Keesler and the Gulf Coast (see Chapter 1). As Colonel McGillicuddy explained, "The difference in Katrina support was the number of evacuees that were coming through Maxwell, and the devastation of Keesler. That's what truly made Katrina different than the other hurricanes."⁵⁵



MSgt Lee Cobb, right, with the 42nd Security Forces Squadron, and Alabama State Trooper Ranger Wright direct trucks to the Federal Emergency Management Agency staging area on Maxwell Air Force Base, Montgomery, Alabama, on 29 August 2005, in preparation for delivering relief supplies to victims of Hurricane Katrina (DoD photo by Donna Burnett).

On 30 August, USNORTHCOM authorized FEMA to use Maxwell AFB as a federal OSA. FEMA again deployed an incident management team to Maxwell before Hurricane Katrina, which allowed the base to coordinate their support to the future humanitarian relief mission before the storm hit

the base and sent refugees streaming from Keesler and other coastal installations.

Because of the advance planning, the support to FEMA was almost an afterthought, in part because of a very capable lieutenant assigned to handle

the operation, and the 42 ABW focused on supporting Air Force employees evacuating from the Gulf Coast. Colonel McGillicuddy explained.

*In these previous [hurricanes] we needed the CAT to help support the truckers. The CAT standing up here was to support these 500 truckers who were coming in and bathing themselves in the sinks and going to and from and eating and everything. We learned a little bit more in Dennis, and then by Katrina, because of our pre-coordination and getting everything set up, it was very smooth. We put a young lieutenant on it. He did a job that was well beyond his years. It was fantastic. He took care of these guys; he was a fire-and-forget weapon we put on them.*⁵⁶

In total, FEMA efficiently processed nearly 1,300 truckloads of aid through Maxwell, approximately the same level of effort as for Hurricane Ivan.⁵⁷

The 42 ABW also provided 800 Georgia Army National Guard personnel traveling in a convoy of approximately 200 vehicles with fuel, food, and lodging space during the night of 16-17 September, as they returned home from their humanitarian relief mission on the Gulf Coast. The base also provided lodging for 92 personnel and a C-130 from the 192nd

Airlift Wing, an Air National Guard unit from Reno, Nevada.⁵⁸

Little Rock AFB and International Aid

On 5 September USNORTHCOM designated Little Rock AFB as an OSA for use by the Office of Foreign Disaster Assistance (OFDA), U.S. Agency for International Development (USAID) to receive supplies donated by foreign countries and delivered by aircraft to the United States. Normally, USAID managed the delivery of American relief supplies to other parts of the world, but in this case the flow was reversed. David Kingsworth, the sole representative of OFDA to the Air Force, arrived at Little Rock AFB on Sunday, 4 September, only two days before the first of 44 international flights delivered approximately 2,600 tons of relief supplies, donated by 27 different countries. The last aircraft, a Turkish C-130, arrived on 2 October.⁵⁹

Initially, Maxwell AFB had been considered as the hub, but the base did not have sufficient airfield capacity or material handling equipment to do the job. Though Maxwell was closer to the Gulf Coast, Little Rock also had good access to truck routes for moving supplies to the stricken region.⁶⁰ General Looney recalled that the CAT discussed which base to assign the international aid mission, realizing that the base would receive flights from many countries under a media spotlight. “[Brig Gen] Kip [Self]’s predecessor, [Brig Gen] Joe Reheiser,



A pallet of generators donated from China for hurricane flood relief awaits unloading from a Chinese 747 aircraft laden with 100 tons of humanitarian aid cargo. The aid flight arrived at Little Rock AFB, Arkansas, on 7 September 2005 from Beijing with supplies that included bedding, clothing and tents (USAF photo by TSgt Christopher Steffen).

said they had gotten the heads up and we were prepared and we can do this, it is not a problem, we are ready to go,” so they got the mission. “Once again it shows the beauty of the CAT where you have everybody there,” General Looney pointed out, to weigh in on an issue and decide quickly. Although Little Rock received notification on 5 September from AETC, when USNORTHCOM designated it as an OSA, there had not been the standard warning or preparatory order. “We received our information by e-mail and by VTC from the Crisis Action Team at headquarters AETC,” Colonel Robert Watson, the 314 Airlift Wing vice commander, explained.⁶¹

David Killingsworth’s job was to manage the flow of international aid

through Little Rock, dispatching the goods to the stricken communities on the Gulf Coast. He had a small staff of two UN logisticians, who arrived a few days after him. The State Department was accepting aid donations, the 314 AW agreed to offload the cargo from arriving aircraft, and USAID was hiring contract support to run a marshalling yard on base to load and dispatch trucks. Ironically, Brig Gen Joseph M. Reheiser, com-

mander of the 314 AW (until Brig Gen Kip L. Self assumed command on 9 September), and Col John A. Starkey, the 314 MSG commander, had previously worked in the joint staff’s logistics readiness center with Mr. Killingsworth, who had been a Commander in the Navy at that time. The men were unexpectedly reunited for the international aid operation when Mr. Killingsworth reported to the 314 AW as the USAID representative. “It was like a retirement home,” Colonel Starkey laughed, “You can imagine General Reheiser’s expression when he said, ‘Dave, what are you doing here?’”⁶²

The short-notice assignment and uncertainty over the arrival schedule of international aircraft created chal-



A C-130 Hercules from Egypt lands at Little Rock AFB, 8 September 2005, carrying material destined for areas affected by Hurricane Katrina. The base was the hub for all international aid flights (USAF photo by A1C Roxanne Zellmer).

lenges for the first few days. “The first thing we did was we tried to identify the type of aircraft that were coming in,” said Colonel Watson, to ensure the wing had sufficient material handling equipment (MHE) on hand to unload the aircraft and move the supplies to trucks for transshipment to the coast. The 314 LRS considered the problem before requesting 60-ton loaders, which Altus AFB supplied.⁶³

The arrival of aircraft remained a problem. “There were a lot of times when we were literally did not know that an aircraft was inbound until we got called to the tower,” General Self explained. “And there were cases where airplanes landed and they

wanted to leave the same day. But we couldn’t turn them fast enough because we had two other aircraft on the ground [that] we were trying to onload, offload, and refuel.” It took time to work out the details of the operation after flights started arriving. The wing explained to AETC, the Air Force CAT, and the State Department that they could only unload two aircraft simultaneously. “But there were times that we had three,” General Self recalled. The delays sometimes meant the aircraft couldn’t depart as quickly as their pilots desired.⁶⁴

The lack of a central point of control for the flights was the problem. “One of the challenges we faced is

there wasn't really anyone in control of the schedule, the inflow schedule of aircraft," Colonel Watson recalled, so for "the first few days we were overwhelmed." Mr. Killingsworth coordinated telephone conference calls with the State Department, the 314 AW CAT, and the Air Force CAT to resolve problems. "We needed someone to help coordinate so we could get a smooth flow," Colonel Watson explained, "instead of getting five aircraft on the ground at the same time. And sometimes we were literally getting jumbo jets two and three at a time within hours of each other and we couldn't service them all." There was no one person in the process initially to control the flow of aircraft to Little Rock. But within four or five days, the OFDA and Air Force CAT deconflicted the operations, and the operation became smoother.⁶⁵

Although the 314 AW's mission was training, all personnel had operational experience to draw upon and did not need to improvise. Though the mission was unexpected, the work was typical of any aerial port operation in the Air Force. "All of our people who work in aerial [port] operations, they come out of aerial ports. When they leave here they're going to go, more than likely, to an aerial port. They do this everyday, so this operation as an international hub for relief was [simply a typical] aerial port operation," Herman L. Springer, a civilian employee and former commander of the 314 LRS, explained. Put another way, the squadron was able to handle the task immediately, according to its com-

mander, Maj Rhonda M. Soto, because its personnel had training and experience in aerial port operations.⁶⁶

The first step in the process was to arrange for customs to clear the arriving cargo. Personnel from the Bureau of Customs and Homeland Protection, the US Department of Agriculture, and the Food and Drug Administration inspected the cargo. Bureau of Customs and Homeland Protection personnel based in Memphis stayed at Little Rock during the international relief operation to be ready for incoming flights. The wing would inform the customs personnel as soon as they knew an aircraft was arriving, which in the first few days was occasionally when the pilot requested permission to land, so that unloading could begin as quickly as possible. Customs had to clear the cargo before anyone could begin unloading it. According to Capt Robert L. Bowles of the 314 LRS, the customs inspectors "were pretty much here all the time, working out of base operations."⁶⁷

So even if they were on final approach and we could see the aircraft, all we would have to do was just give them a call on the cell [phone] and tell them, "hey it's on the ground in five minutes." And that would work. But as it progressed and we got closer to the end of the operation, the flights would come in less frequently. They would drive up here from Little Rock. So if there was a major

*schedule change or fluctuation, sometimes it would delay the download having to wait on customs to get here.*⁶⁸

Though Mr. Killingsworth was the primary liaison with inspectors, the wing's main responsibility was "to be there and with the customs officer, under his instructions and directions, to dispose of the international waste. So we were basically there to assist him if he needed assistance." The steps taken depended on the nature of the cargo and the country of origin.⁶⁹

The next step after customs cleared the cargo was to unload the

aircraft. One particular challenge was inherent to the foreign equipment. Russian-built Il-76 and An-124 aircraft lacked built-in rollers on the floor, a standard feature in U.S. aircraft that allowed cargo pallets to be rolled on and off the plane easily. When the first Il-76 landed, the wing was unaware that the aircraft had been hand-loaded in Russia. CMSgt Randy K. Smith, superintendent of the 314 LRS, stated, "The IL-76 and the An-124s both are [very] different from our aircraft. There are no rollers in the floor [that would allow] their pallets [to] be pushed and moved the way ours are. They have to be lifted with cranes or forklifts or manual pallet jacks to move



Airman assigned to the 314th Airlift Wing volunteered to unload supplies arriving on foreign aircraft at Little Rock AFB, Arkansas. In this photo, volunteers manhandle supplies.

those pallets in and then forklift out. It's a lot more labor-intensive than what we were accustomed to." Others in the squadron talked at length about the difficulty the Russian aircraft presented. Even if the cargo was palletized, Mr. Springer explained, "they have a crane-type system where it's picked up and put on a K-loader. And that's a lot more time consuming and cumbersome than a roller system where you just roll them off. So that's what the Chief was taking about. We could use our equipment and everything. It was just more labor [intensive] how you off-loaded that aircraft." When the cargo was floor-loaded in boxes, each box had to be hand-carried out. All hands converged on the IL-76, which was unloaded in two-and-a-half hours of sweaty work in temperatures over 90 degrees (and hotter inside the aircraft).⁷⁰ The floor-loaded Russian and Indian aircraft also amazed Colonel Starkey, who described the scene.

But we're talking about bundles of hay... they were really just strapped down to the floor. They loaded them with masses of people and they had to be unloaded with masses. No, there's no getting around any of that. Now, of course, if they were on wooden pallets we'd drive our forklifts and pick up the wooden pallets, which in itself is very inefficient. Because now you are talking about rolling a piece of equipment into the plane,

out, putting it on the K-loader, driving into the plane again, out, putting it on the K-loader. That, of course, speeds the process up a bit, but when you get to the floor loaded stuff, it's just back-breaking, mechanical work, and tough, too. You are talking about these airmen picking up these sacks of rice time and time again for hours, [and] that gets old pretty quick when your back starts to hurt.

In retrospect, he said, only partly facetiously, "We probably should have had a masseuse down in the LRS—a couple of masseuses. Yeah, that would've helped the troops. They would've loved that more than food."⁷¹

The commercial aircraft that delivered much of the foreign aid were, by contrast to the Russian military transports, easier to handle. Most of the aircraft were American-built Boeing 747-100s, which carried cargo on standard air freight pallets, a commercial version of the military 4630 pallet which resembled a cookie sheet. However, many of the countries wanted the U.S. to return their cargo pallets, so even when the cargo could be taken off the aircraft relatively easily, it had to be handled a second time to remove the goods from the pallet. "We had to offload [the pallets]," Major Soto explained, "and then offload the goods off the cookie sheets," and onto a Little Rock pallet, "so that we could put the cookie sheet back on the aircraft. So

there was dual handling.” The cargo was placed on the pallet directly or on wooden skids that could be removed using a fork lift or pallet jack and placed on trucks heading for the coast. By contrast, NATO countries sent much of their aid to Ramstein Air Base, Germany, where it was placed on Air Mobility Command pallets before being flown to Little Rock, which simplified accountability.

A second roadblock was that the wing had initially expected OFDA to handle the operation with contracted help from DHL shipping. “Originally the AETC CAT had told Little Rock CAT that DHL would be a turn-key operation,” requiring no assistance from the Air Force, Captain Bowles explained, “where it [would] come in with personnel and download the aircraft and upload the trucks or handle the whole thing. So we were operating under those procedures and concepts, but still I kept both looking at what we would need in a way of equipment and personnel.” For about four days, the wing handled all operations. The DHL finally started working at the end of the first week of the operation, and loaded supplies on trucks in the marshalling yard, while the 314 AW continued to unload aircraft. “Once DHL got here, they melded very well in our operation,” Springer recalled. Chief Smith added:

[Our] initial understanding of the contract was that they were going to take everything over. They were going to unload aircraft, they were

going to do everything, and it turned out that they did the surface operation, like Mr. Springer was saying. But we downloaded all the aircraft, took the cargo to the marshalling yard—and then from there DHL would break it into skids or load it onto the trucks for distribution to the area. So that’s what it ended up being.”⁷²

Because of uncertainties with the flow of aircraft and the amount of aid foreign countries would donate, the wing did not realize they would be undermanned until it was too late to bring in help during the busiest time. General Self explained, “We didn’t really know that we needed it until we were right in the middle of the battle, and by the time we got it coordinated and brought those people forward, they did help, but it wasn’t as critical at that point.”⁷³

In retrospect, according to Colonel Starkey, a big lesson learned was not to underestimate the amount of aid arriving.

They usually say take your estimate and increase it by ten percent. In this case I think the ten percent rule was wrong. Take your initial estimate and increase it by twenty five percent. So that was really the biggest lesson. To plan for the worst, that if we say that we have a MOG [Maximum number of air-

*craft On Ground simultaneously] of two and announce that there is a MOG of two with respect to international guests, whatever we publish is irrelevant to them. They are going to come when they want to come and they're going to expect to be serviced when they do arrive. So prepare for the worst. We were able to take three or four at a time. We should have been prepared to have the equipment to download three or four simultaneously.*⁷⁴

After the pallets were unloaded, they were transported to the marshaling yard, where the supplies were sorted and loaded onto trucks. The work, therefore, did not end at the flight line. Mr. Killingsworth explained the process. "We'd receive the goods, we'd re-inventory them when they got here, and we'd put it on our warehouse report [to FEMA] that would go out sometimes two, three or four times a day." In this way, FEMA informed its regional offices in Austin, Atlanta, Dallas, and Baton Rouge about what supplies were available, which allowed state relief agencies to request specific items, which the trucks delivered. "We had approximately 60 trucks on contract at the peak period." In order to request supplies, a relief organization would send a dispatch request to Mr. Killingsworth, who forwarded a copy to FEMA headquarters in Washington, D.C., to USAID, and to the State Department, all of whom had four hours

to respond. If another location had a more urgent need for the requested supplies, FEMA would redirect the shipment. "It would trump the dispatch request. But if not, after four hours if we didn't hear anything from them, we'd send the trucks on through."⁷⁵

There were cultural challenges and language barriers to overcome as well. Mr. Springer explained that in several instances, it was difficult to find someone able to communicate with the international aircrews to understand how they wanted their aircraft to be refueled. The 314 AW, however, went to great lengths to find interpreters. Major Soto explained that the Mission Support Squadron "actually ran a list of folks that had language skill on base. And I believe there were times when they were even making calls down to the university here to see if they had any language majors. I don't think those folks were actually utilized. But some of the on-base personnel were utilized for these flights."⁷⁶

The spectacle of foreign aircraft at Little Rock was not lost on the base population. Mr. Springer recalled that a lot of people commented on the irony of Russian aircraft, from a former Cold War adversary, delivering aid to the United States through Little Rock. In the flow of supplies was also evidence of the global economy. An aircraft from China brought several hundred portable power generators, all of which had instructions in English because they had been intended to be sold in the American market.⁷⁷



Col John A. Starkey, 314th Mission Support Group commander, greets a Chinese official arriving at Little Rock AFB, Arkansas, with a planeload of aid for victims of Hurricane Katrina. The 314th Airlift Wing assisted the US Agency for International Development in unloading and distributing the supplies.

The arrival of foreign dignitaries was a unique challenge for base protocol. “We had Chinese drop in with the Minister of Defense equivalent come off the airplane,” General Self recalled, “because it’s a great political opportunity to see what you wouldn’t ordinarily see in Little Rock.” Russian and Chinese aircraft did not normally deliver relief goods to the United States. “Who would’ve ever thought that twenty years ago?” General Self, and many others at Little Rock and around the nation, observed. “It was a historical moment in my mind for all those countries to come together. For decades that the United States supported them in disasters and to see that reversed was very impressive,” General

Self said.⁷⁸ The Chinese had never sent aid to the United States, and so they sent their consulate from Houston, and the State Department was anxious to get it right. Colonel Starkey recalled, “I must’ve received at least four phone calls from the State Department making sure that this is done, that was done. I mean they got to the point where they said, ‘you’re going have tea and this and that for munchies.’ And we went around looking for specific munchies for them. The protocol [office] literally asked to orchestrate the protocol concerns for the DVs [distinguished visitors] that are onboard this airplane. And it was done very well.”⁷⁹

The arrival of special rice from Thailand created an unexpected imbroglio for Colonel Starkey. As an American, the colonel explained, he wasn't particularly "familiar with royalty."

Apparently the King of Thailand has his sacred land, and on his land sacred crops are grown. To be the recipient of his sacred crop is a really big deal. Well, this delegation from Thailand had mentioned to me that they have the King's rice on board. I'm thinking, okay, well that's cool. Apparently, my reaction wasn't quite what they were looking for. [They were looking more for a response] like, 'Wow, thank you very much, we're blessed, we're honored.' So the conversation continued with, 'and where do you plan on storing the king's rice?' And I showed them the marshalling yard and I said well here, the food products are over here, the medical products are over here, and the blankets. 'Oh no, that won't be suitable,' [the Thais replied,] 'the King's rice has to be covered.' And then I realized oh wow, okay, I get it, this is special stuff. Fortunately, we did have a hangar nearby. I opened the door and there was space. And we...put the King's rice in a hangar. Again, just because I wasn't

familiar with what it was. But I knew this: they wanted to see it go in a hangar, and they saw it go in a hangar.

There were a lot of nuances to receiving aid, Colonel Starkey concluded.⁸⁰

In summarizing the operations, General Self emphasized the significant achievement of not only Little Rock AFB but the DoD as a whole.

There's probably not a country in the world that could have pulled this off, in terms of being able to respond to an emergency like this. What was accomplished here in Little Rock and other places like Keesler, and how we responded and how we were able to take care of our own was an amazing feat: the ability of the DoD to absorb the evacuees not only here in Little Rock but in Texas and move them. We moved an entire schoolhouse out of Keesler to Sheppard AFB.⁸¹

All the while, the 314 AW never missed a day of training. "We were overwhelmed, but it's hard to find an airman out there that says, 'I can't do it.'" Airmen worked 12- and 16-hour days, seven days a week. "We asked for volunteers, and we got everybody that was available, and no one complained," Colonel Watson explained, "no matter how hot it was or the two-and-a-half hours of effort that it was taking to off-load. It was a big team effort and a very



A UH-1N Huey helicopter takes off from Minot AFB, North Dakota, on 2 September 2005 for Columbus AFB, Mississippi, to assist in the Hurricane Katrina disaster relief efforts (USAF photo by SSgt Joe Laws).

gratifying, satisfying [job] to be done.”⁸² According to Colonel Starkey, the military responded well to what national authorities asked it to do.

*I think that we shined very brightly...I'm talking about the military in general. We were just ready, willing, and able to do it. We converted our wartime processes for a peacetime event. The procedures were still the same. The infrastructure, the communication system—it was all the same.*⁸³

The dedication of Airman to doing their job, and the military training they had received in the Air Force,

made the difference. “From that vantage point, we build terrific people in the Air Force and the DoD,” General Self explained, “and there was no way that we were going let this fail, because it was taking care of our own.”⁸⁴

Columbus AFB

Search-and-rescue helicopters of the 620th Expeditionary Airlift Squadron operated out of Columbus AFB from 7 through 17 September. Air Force Space Command deployed 8 UH-1N helicopters and 83 support personnel to Columbus from F.E. Warren, Malmstrom, Minot, Peterson, and Vandenberg AFBs, the first time it had deployed its helicopters from their normal mission of providing security to

the ICBM missile silos, to assist with search and rescue efforts under the control of JTF-Katrina. The aircraft began arriving on Monday, 5 September.⁸⁵

Conclusion

Though USNORTHCOM led the DoD's Defense Support of Civil Authorities effort, AETC was a key player in humanitarian relief efforts. The 97 AEG provided support to non-Air Force agencies that operated from Keesler. On the Gulf Coast, Keesler members provided strong backs and organizational expertise to put HUMRO distribution warehouses into smooth-running order and continued to support the local community after JTF-Katrina wrapped up its operations. These humanitarian missions affected AETC members deeply, as they came face to face with poverty and the needs of storm victims for the necessities of life. The Chaplain Service played a crucial role in organizing relief missions by relying on their contacts with the area's churches where the poorest inhabitants of the area first turned for assistance. The 37 TRW welcomed displaced residents from New Orleans evacuated by air and sheltered on a portion of the former Kelly AFB now controlled by the city of San Antonio. Medical personnel from the command supported FEMA operations, and Maxwell AFB's prior planning with FEMA officials allowed the base leaders to focus on assisting evacuees. Finally, Little Rock AFB accepted donations of international aid.

Throughout the command, Airman "leaned forward" to offer assistance while reorganizing their operations to maintain regular training production where possible, and many volunteered their personal time to aid Air Force members as well as fellow citizens displaced by the storm.

¹ Townsend, Frances F., *et al.*, "The Federal Response to Hurricane Katrina: Lessons Learned," Feb 06, pp. 12-17.

² Hist (FOUO), MSgt Spiers, *et al.*, "History of JTF-Katrina," p. 83, information used is not FOUO.

³ *Ibid.*, pp. 7-17, information used is not FOUO.

⁴ Intvw, Ashcroft with Col Simmons, *et al.*

⁵ Intvw, Ashcroft with Col Simmons, *et al.*

⁶ Intvw, Hussey and MSgt Rich Guinan, 97 AMW/HO, with Lt Col Karl L. Freerks, 97 CES/CC, 2 Nov 05.

⁷ Hist (FOUO), MSgt Spiers, *et al.*, "History of JTF-Katrina," p. 87, information used is not FOUO; G-Series Order, GO-11, 5 Sep 05; also see Capt Greg Justice, 97 AEG/PA, "Keesler AFB and 97 AEG Team Up to Support Katrina Relief," n.d.

⁸ Intvw, Hussey and MSgt Guinan with Col Linda R Medler, 1 Nov 05; Brfg, "AEG 2 CC Initial Briefing," 4 Sep 05.

⁹ Intvw, Hussey and MSgt Guinan with Col Medler.

¹⁰ Intvw, Hussey and MSgt Guinan with Col Medler; Intvw, Hussey and MSgt Guinan with Lt Col Freerks.

¹¹ Intvw, Hussey and MSgt Guinan with Col Medler; Intvw, Hussey and MSgt Guinan with Lt Col Freerks; Tlkg Paper, Col Medler, 97 AEG/CC, "97 AEG/KAFB Hurricane Katrina Humanitarian Relief Operations," 29 Sep 05.

¹² Intvw, Hussey with CMSgt Walker.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ *Ibid.*

¹⁶ Intvw, Cully with Col Steven T. Sill, 81 TRW/HC, 3 Nov 05.

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ *Ibid.*

²¹ *Ibid.*

²² Intvw, Hussey with Lt Col Freerks.

²³ Intvw, Hussey with Col Medler.

²⁴ SITREP, 97 AEG, 30 Sep 05, w/2 atch: 1) Form 1206, 97 AEG, "Nomination for Award," 6 Sep-3 Oct 05 and 2) Tlkg paper, Col Medler, 29 Sep 05; also see Article, Ed Offley, "Tyndall Relief Unit Ready to Stand Down," Panama City News Herald, 30 Sep 05.

²⁵ Intvw, Mason with General Looney.

²⁶ Website, National Disaster Medical System, <http://www.ndms.dhhs.gov/>, 2005, accessed 23 Jan 06.

²⁷ Talking paper, AETC/SGX, "AETC/SGX Summary for Hurricane Katrina," 1 Dec 05.

²⁸ Memo, AETC/SG to AFMOA/SGZO, "HQ AETC/SG Hurricane Katrina After Action Report," n.d.

²⁹ Memo, AETC/SG to AFMOA/SGZO, "HQ AETC/SG Hurricane Katrina After Action Report," n.d.; website, Joint Doctrine, Education and Training Electronic Information System, 24 Jan 06, <http://jdeis.cornerstoneindustry.com/jdeis/quick-Search/qsOverviewPortlet.jsp?conceptId=244&f=1&searchStr=G>, accessed 24 Jan 06. GPMRC uses the Joint Medical Evacuation System (TRAC²ES), which contains information reported by the transferring medical facility, such as the patient's identification and medical condition.

³⁰ Intvw, Ashcroft and TSgt Tracy English, 37 TRW/HO, with Col Bonnie Lind, 37 TRW, 28 Oct 05.

³¹ Intvw, Ashcroft and TSgt English with Col Lind.

³² *Ibid.*

³³ Email, Mark Hostetter to Mason, "RE: Katrina," 25 May 06.

³⁴ Article, Sheila Hotchin and Tracy Idell Hamilton, "KellyUSA will be home to thousands of Katrina refugees," San Antonio Express-News 12:09AM, 2 Sep 05.

³⁵ Intvw, Ashcroft and TSgt English with Col Lind; Brfg, 37 TRW CAT, 1 Sep 05.

³⁶ Intvw, Ashcroft and TSgt English with Col Lind.

³⁷ Email, Manning to ALL HQ AETC/HO, "Hurricane Katrina-CAT Level 1—2 Sep 05," ca. 2 Sep 05.

³⁸ Intvw, Ashcroft and TSgt English with Col Lind.

³⁹ *Ibid.*

⁴⁰ *Ibid.*

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ Email, Manning to ALL HQ AETC/HO, "Hurricane Katrina-CAT Level 1—3 Sep 05," ca. 3 Sep 05.

⁴⁴ SITREP, AETC, "SITREP 005: 2201 Z 3 Sep-2200Z 4 Sep," 4 Sep 05.

⁴⁵ SITREP, AETC, "SITREP 006: 2201 Z 4 Sep-2200Z 5 Sep," 4 Sep 05.

⁴⁶ Article, San Antonio Express-News, 2 Sep 05; Fax, US 5th Army to 37 TRW CAT, "HURREVAC Flights for 4 Sep," 4 Sep 05.

⁴⁷ SITREP, AETC, "SITREP 004: 2201 Z 2 Sep-2200Z 3 Sep," 3 Sep 05.

⁴⁸ Intvw, Ashcroft and TSgt English with Col Lind; Email, Jerry Stanfill, 37 MSG/SV, to TSgt English, "Hurricane Hustle," 19 Oct 05.

⁴⁹ Email, Lt Col Robert W. Roth, 37 SFS/CC, to Lt Col Harry R. Kimberly, AETC/SFD, “37 SFS Operations Order for KellyUSA Security,” 14 Sep 05; Ltr, Brig Gen (sel) Mary Kay Hertog, 37 TRW/CC, to Lackland AFB personnel, ca. 3 Sep 05.

⁵⁰ Email, Lt Col Roth to Lt Col Kimberly, “37 SFS Operations Order for KellyUSA Security,” 14 Sep 05.

⁵¹ Intvw, Mason with CMSgt Ellison.

⁵² Intvw, Mason with Col McGillicuddy, *et al.*; MOA, Col John A. Neubauer, 42 ABW, “Memorandum of Agreement between Maxwell Air Force Base (MAFB), Alabama and Alabama Emergency Management Agency (AEMA),” 21 Apr 04.

⁵³ Intvw, Mason with Col McGillicuddy, *et al.*

⁵⁴ Memo, 42 ABW/XP, “Background Data on MAFB Support of FEMA Relief Operations,” 19 Oct 05; Intvw, Mason with Col McGillicuddy, *et al.*

⁵⁵ Intvw, Mason with Col McGillicuddy, *et al.*

⁵⁶ *Ibid.*

⁵⁷ Intvw, Mason with Col McGillicuddy, *et al.*; BBP, 42 ABW/XP, “MAFB Support of FEMA relief operations,” 19 Oct 05; MOA, “Memorandum of Agreement between Maxwell Air Force Base, Alabama, and Alabama Emergency Management Agency (AEMA),” 21 Apr 04; Memo, 42 ABW/XP, “Maxwell Support for Hurricane Katrina,” n.d.

⁵⁸ Email, Col Costello, 42 ABW/CC to Teri Baker, 42 ABW/XP, *et al.*, “RE: GA ANG Support Plan,” 14 Sep 05; SITREP, 42 ABW, 17 Sep 05; SITREP, 42 ABW, 18 Sep 05; Rpt, 42 ABW/XP, “Summary of Maxwell AFB Support to Hurricane Katrina,” n.d.; Article, Jon Sladek, AU/PA, “Army task force rests at Maxwell,” ca. 18 Sep 05.

⁵⁹ Hist (FOUO), MSgt Spiers, *et al.*, “History of Joint Task Force—Katrina,” p. 17, information used is not FOUO; Intvw, MSgt Devin Driskell, 314 AW/HO, with David Killingsworth, OFDA, ca. 1 Dec 05.

⁶⁰ Intvw, MSgt Driskell with Brig Gen Kip L. Self, 314 AW/CC and Col Robert Watson, 314 AW/CV, 1 Dec 05.

⁶¹ Intvw, MSgt Driskell with Col Starkey; Intvw, Mason with General Looney.

⁶² Intvw, MSgt Driskell with Col Starkey.

⁶³ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*

⁶⁶ Intvw, MSgt Driskell with Maj Rhonda M Soto, 314 LRS/CC, Capt Robert Bolwes, 314 LRS, CMSgt Randy K. Smith, 314 LRS, and Herman L. Springer, 314 LRS, 9 Dec 05.

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁷¹ Intvw, MSgt Driskell with Col Starkey.

⁷² Intvw, MSgt Driskell with Maj Soto, *et al.*

⁷³ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁷⁴ Intvw, MSgt Driskell with Col Starkey.

⁷⁵ Intvw, MSgt Driskell with Killingsworth.

⁷⁶ Intvw, MSgt Driskell with Maj Soto, *et al.*

⁷⁷ Intvw, MSgt Driskell with Brig Gen Self and Col Watson; MSgt Driskell with Maj Soto, *et al.*

⁷⁸ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁷⁹ Intvw, MSgt Driskell with Col Starkey.

⁸⁰ *Ibid.*

⁸¹ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁸² *Ibid.*

⁸³ Intvw, MSgt Driskell with Col Starkey.

⁸⁴ Intvw, MSgt Driskell with Brig Gen Self and Col Watson.

⁸⁵ Hist (FOUO), MSgt Spiers, *et al.*, “History of JTF-Katrina,” p. 87, information used is not FOUO; Article, “Troops, helos to support CAFB relief efforts,” CAFB Katrina Update, 8 Sep 05; Article, 14 FTW, “83 deploy to CAFB in support of Katrina relief efforts,” Silver Wings, 9 Sep 05; Article, “CAFB becomes base for rescue effort,” Columbus Dispatch, 4 Sep 05; Disc, Tom Manning, AETC/HO, w/Connie Lisowski, 14 FTW/HO, 1 Nov 05.

Chapter 4

Quality of Life

As Katrina bore down on Keesler and the Gulf Coast, many people wondered where the storm would make landfall and whether or not they should evacuate their residences. More importantly, as they took shelter in their homes or in a central location, they were concerned about surviving the storm. The first consideration, obviously, was survival, and only one member of the Keesler family lost his life. The next most basic questions were what would they lose to the storm and what would be their quality of life following Katrina. This chapter takes a much more personal look at shelter life; the psychological effect of the storm on the Keesler staff and students; the restoration of quality of life programs such as the base exchange, commissary, chapel, and services programs; and a number of special events that signaled the continuity of the natural life cycle.

Shelter Life

Roughly 6,000 people sought refuge on Keesler AFB in six shelters. The shelters were sized to hold between 1,000 and 1,700 people, with each person assigned about 15 square feet of personal space, enough for an air mattress or a sleeping bag and a gym bag. While shelters stocked meals

ready to eat (MREs), each person was expected to bring his own food and water for three days. In each shelter, the wing assigned civil engineer teams to fix things that broke, medical personnel to attend to medical and mental health problems, chaplains for pastoral care and religious services, and security forces personnel. In addition, shelter commanders assigned people to teams to attend to sanitation, food, entertainment, and security. Since the base practiced sheltering twice each year, operating in such an environment was somewhat familiar. For example, based on its experience of long lines of people standing in the rain waiting to get into shelter with Hurricane Ivan in 2004, the wing had developed a bar code scanner to read base identification cards. This simplified the in-processing needed to maintain personal accountability for those who decided to ride out the storm in base shelters.¹

At 9:00 a.m. Sunday morning, 28 August, the base shelters opened, and by 10:00 p.m. that evening everyone was in place. While most people probably expected to resume their lives after the storm passed, because of concerns about looting reported in the local community the base ended up sheltering its people for six days. As might be expected, shelter life got old.

Maj Anthony B. Williams, 332 TRS commander, had been a deputy shelter commander during Ivan and served as one of the Katrina shelter commanders. He commented that “it was much nicer being the second in command” and that during Ivan “everybody seemed pleasant and they were glad to see me.” As a shelter commander during Katrina, however, he “was berated and cussed out and had to be the bearer of bad news.” Lt Col Randy Coats, the 333 TRS commander at Keesler, also served as a shelter commander during Katrina and wrote about his experiences and those of his 730 “closest friends” in an essay that was spread throughout the Air Force and internet community. While most of the shelter leaders were TRS commanders, those in any particular shelter were a relatively homogeneous group, based on unit of assignment. The 700-plus people in Colonel Coats’s shelter, however, consisted of personnel and families from two training squadrons, civil engineer and security forces squadrons, over 100 Marine Corps service members, 150 NCOA students and faculty, international students and their families, and inmates from the base prison. Bryan Hall, where these people sheltered, was an old nuclear fallout shelter with no windows and no showers. After the storm, Colonel Coats moved into a dormitory room and his family evacuated. With time on his hands, and knowing it would soon be his turn to write an essay about leadership for the Keesler base paper, he decided to write about life and leadership challenges in his shelter.²

Not surprisingly, it did not take long before breakdowns began to occur. At noon on Monday, the power went out and the generators automatically kicked in. One of the two generators, however, burned out after a short period of time. The shelter lost internet connectivity; water stopped running; and toilets began overflowing. Fortunately, rummaging around in the basement, one individual found an old Civil Defense portable toilet and “surprisingly soft” toilet paper. After an hour, “Water comes back thanks to CE heroes going out in the storm to repair [the] pumping station.” During the course of events, several people became dehydrated because the air conditioning failed, and, among everything else, a woman went into labor and was rushed to the hospital. On Tuesday morning, following a base CAT meeting, Colonel Coats debriefed those in his shelter:

Most uncomfortable briefing I've ever given. Reports indicate widespread devastation. Death toll probably in the hundreds. Power out for at least three weeks. Must begin water conservation. Minimum three months to resume base mission. Will not leave shelter for at least three days. 730 stunned and scared faces focused on me. Worst possible situation for a commander—troops need reassurance I can't give. Struggle to keep my voice steady. Not sure how well I did.³

Among the many challenges in the shelter was the ban on smoking. While “most [people] bring food for two days; smokers bring cigarettes for twenty days.” After the doors closed, there would be no smoking for 24 hours; by noon the next day, Colonel Coats noted, “Natives [how he referred to his 730 ‘closest friends’] who smoke starting to visibly shake; many look physically ill.” By late Monday evening, the “smokers [were] running out of cigarettes to eat.” Colonel Coats opened a side door to the shelter and roped off a 10-foot by 10-foot smoking area. “Everyone loves me.” In such a constrained space, simple pleasures, such as just opening the doors Monday night so some fresh air could be allowed into the building, took on greater importance. “I’m a hero; Natives love me,” said Colonel Coats. Wednesday morning, “my most creative NCO” figured out how to hose people off. While not a shower, the quick rinses were a welcome relief. On Thursday, the dining hall next to the shelter opened and served a hot meal. “Natives happily wait in line 2+ hours for rice with spaghetti sauce and a piece of bread. After the week we’ve had, it’s like Grandma’s Thanksgiving dinner.”⁴

When summing up his shelter experience, Colonel Coats commented, “CE and Cops. If you’re looking for the heroes of Keesler, I’ll be happy to escort you to their buildings.” And he was struck by the Natives’ sense of humor and ability to make the best of the situation—a situation that included living in a poorly-ventilated building

with almost no amenities, sleeping on a tile floor in puddles of their own sweat, and spending six nights and five days “not knowing whether or not they had a home to go home to.” The shelter experience was the clearest demonstration of what it meant to be a military family and all that being a professional entailed. What Colonel Coats learned was that each person he encountered was a leader in his or her own right and that “they don’t need a commander, they only need a cheerleader who will give them the support and the freedom they need to do what needs to be done.”⁵

While Colonel Coats’ shelter accommodated 730 people, the hospital sheltered 1,327 people, including a number of patients, and the experience was different from the other base shelters. As noted previously in this study, the hospital suffered serious damage, including the loss of its electrical distribution system. Even with emergency generators, the 81st Medical Group did not have power in most of the building, just local pockets that could be wired directly into the generators. Also, the hospital did not have many windows so it was very dark after it lost power. The dark was the hardest part of the ordeal according to General Dougherty, the medical group commander, as people got anxious and depressed. The hospital had its own dining facility, but when the basement flooded, the medical group lost that. However, the medics were able to salvage most of the food in their freezer, so while the rest of the base was eating

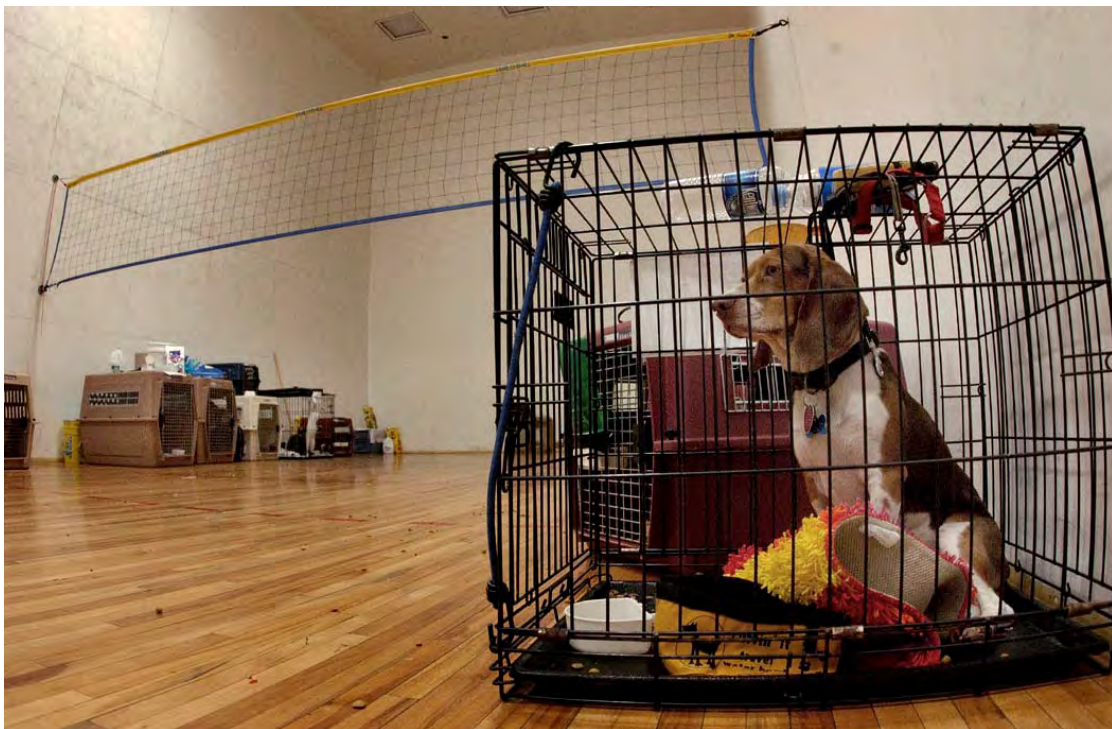
MREs, the hospital staff had cookouts at night.⁶

To allay people's concerns about their pets, and to keep people from bringing their pets into the shelters or taking a foolish risk to protect their pets, 1st Lt Matthew Ochoa from the Mission Support Group's Services division set up a pet shelter in the Vandenberg Community Center. General Lord recalled that about 150 dogs and 80 cats sheltered on base, but he "drew the line at a horse. Somebody asked to bring a horse [into the pet shelter]." The question about sheltering stray animals must have been raised, for the 3 September *Katrina Daily News* advised that no strays would be accepted. In addition, per-

sonnel with pets in the shelter were reminded to ensure that their pets were fed and walked regularly. People who returned to their homes took their pets with them; for those forced into temporary housing, the base designated 95 permanent party dormitory rooms as "pet friendly quarters," allowing families to be reunited with their pets. A few pets that had not been claimed from the shelter were taken to Maxwell AFB.⁷

Trauma

For Keesler personnel who lost homes and possessions, Katrina's aftermath quickly turned traumatic. About one-fourth of assigned personnel lost virtually all their possessions



A Hurricane Katrina evacuee's dog in a shelter at Maxwell AFB, Alabama. Pet shelters provided peace of mind to their owners as they sheltered at Keesler AFB, Mississippi, or, in this case, evacuated with their animal companions (USAF photo by MSgt Jack Braden).

and many found themselves homeless. This difficult situation first came to light on Thursday, when people who sheltered were allowed one hour to retrieve what they could from their homes. They had to provide a written route of travel and take a partner, or “wingman,” with them. On their return, they had to be decontaminated before reentering the shelter. Many who returned to the base shelter had to face the fact that they were homeless, and Colonel Coats observed:

Commander School never taught me how to respond to ‘I have nothing left,’ or how to comfort women and men crying uncontrollably in my arms. Some cried for what they lost, some for what they saw. My only consolation is that I know how they feel. The stink in [my] house made me gag; the mud was gooey, sticky, and got on everything.⁸

Colonel Simmons discussed the “thousand yard stare” that he saw on the faces of many, “The whole magnitude of what had happened to them was overwhelming.” And the crew that stayed behind at Keesler had to relive their losses each time people returned to the area. He observed:

For the rest of us that had been there at Katrina, we had already gone through the grieving stage, and so now you have a fresh group of folks trickling in from time to

time that are hit with this. They were going through stuff we had already been through and then we were on the other side of it and they are going through the beginning of it. I can tell you there was about a week of time where it was a fight for me to process information...to be able to plan ahead and think ahead and stuff like that because of the magnitude of finally waking up and coping with that. And all these people were going through that when they came back.⁹

While this experience forced the original cadre to relive their experiences, they were able to help the returnees face their losses and begin attending to the myriad of details necessary to rebuild their lives.¹⁰ Chaplain (Col) Steven T. Sill explained that:

There was something about the combination of having to work hard, having personal grief going on in your life, and having a lot of uncertainty about the future, whether the base would still be open, where is my job, am I going to need to move, how long will my family be gone, and when do I have time to go and sort through my drowned possessions.¹¹

Military personnel were used to stress, but it was “an eye opener” for Chaplain



SSgt Jose Espola-Negron looks around his Keesler AFB home in disbelief. Most of his belongings were ruined from flooding during Hurricane Katrina. Before returning here from Eglin AFB, Florida, where his family evacuated to before the storm, the only information he had about his home was that it had taken in a lot of water. During the highest point of the flooding, more than 6 feet of water was in his home. Sergeant Espola-Negron was an air traffic control instructor with the 334th Training Readiness Squadron (USAF photo by Joe Piccorossi).

Sill how Katrina affected Keesler personnel.¹²

One of the first things the wing addressed were those people with specific needs. For example, about 445 Keesler airmen returned early from Air Expeditionary Force deployments to help their families cope with their losses and to help rebuild the base. In addition, AFPC and the command worked to help transfer those permanent party personnel with special medical needs that could no longer be met by the base medical facilities and also those whose normal rotation date

was close. The *Katrina Daily News* of 3 September noted that personnel PCSing from Keesler with report not later dates through 31 December would be offered accelerated report dates. To expedite processing, an assignments team composed of members from HQ AETC Personnel and AFPC visited Keesler the week of 3 October. General Lord had requested that everything be done to “eliminate the hardship on military members who have lost everything and are now displaced from their home and/or family members.” Ground rules included:

- Keesler's group commanders had final approval authority to determine which of their airmen would be allowed to receive assignments.
- Positions that became vacant would not be backfilled until the base infrastructure was in place to support new personnel and their families. Instead, wing officials would use temporary manning assistance via volunteers who went to Keesler in a TDY status to meet the most critical needs.
- Personnel requesting transfers needed to identify a geographic region, with at least a couple of bases, for the assignment team to work with, and only assignments within the continental United States would be considered.
- Assignments would only be made to valid USAF requirements.
- The assignment team had authority to include time on station (TOS) and other assignment code restrictions.

People with last names beginning with the letters A-D began meeting with the team first thing Monday morning. According to data tracked by HQ AETC, AFPC processed 428 enlisted personnel assignments and an undetermined number of officer transfers. Included in the total were 127 assignments in-

volving a TOS waiver and nearly 230 transfers based on medical needs.¹³ General Looney fully supported this effort, commenting that the day before Katrina, people at Keesler "were living in a beach paradise." Having lost everything they owned, it was "time to take them out of the fight [and] bring in folks that know what they are getting into."¹⁴

General Utterback and General Lord were among those who left Keesler shortly after the storm. Maj Gen Michael C. Gould took the reigns of Second Air Force on 9 November and Brig Gen Paul F. Capasso became the training wing commander on 15 November. General Gould had some AETC experience, having served as commander of the 97 AMW from January 1999 to July 2000 and as the HQ ATC vice commander's executive officer from July 1986 to August 1988. He was serving as Third Air Force commander when chosen to replace General Utterback, who moved to the deputy commander position in HQ Pacific Air Forces. General Capasso had been the HQ AETC director of communications and information and the command's Chief Information Officer from June 2001 to February 2003, and was serving as the director of command, control, communications and computer systems at U.S. Transportation Command when tapped for the job at Keesler. While Generals Utterback and Lord might have provided continuity for the reconstitution of training and rebuilding the base, General Looney believed the command had wrung as much as it could from the



Personal belongings and parts of walls are strewn about the backyard of a home on the perimeter of the Bay Ridge housing area on Keesler AFB, Mississippi. Hurricane Katrina's high winds and storm surge downed trees, engulfed homes in debris and destroyed houses in the area (USAF photo by Joe Piccorossi).

two and that it was time to let them recover some place else. Both men and their families lost virtually all of their household goods and personal belongings when their houses on Back Bay flooded during Katrina.¹⁵

As bad as the trauma was for military personnel, the storm had an even greater effect on civilian workers who grew up and resided in the Biloxi area. Colonel Simmons compared the devastation along the coast to “a bunch of nuclear detonations.” He also mentioned that the NCOIC of the command post was an auxiliary police officer who had been out searching for bodies; the police lost count after about

60. Lt Col Monica Kopf of the 336 TRS, who served as one of the shelter commanders, could see how painful it was for civilians who had been at Keesler. In a 3 November roundtable discussion, she remarked that “there’s a lot of grieving going on, not only from your personal perspective, but from a community perspective.” In the same interview session, Lt Col Dale G. King, the 81 TRSS commander, mentioned someone in his shelter who lived in the local community and who had checked on his home. When he returned to the base, he “literally broke down because he had realized his neighbors were dead.”¹⁶

Second Lieutenant Lisa Kostellic, who worked in the 81 TRW Public Affairs Office, had grown up in Biloxi. In an article carried in the base newspaper, she wrote about her curiosity after the storm.

After talking to so many about what they had lost and where they lived, I realized my childhood home had been in harm's way. I had to know. I had to see it. So I drove down Cedar Lake Road, past the new Biloxi High, right onto Brasher Road, left onto Mulberry Drive...and now I know. Now I know what so many others have known—have felt since the day after the storm. The image of my childhood home is burned in my mind, and it's not just the gutted house with a dirty, empty pool I see, but my entire neighborhood. My neighbors' homes are in the same state, and all that's left of my best friend from kindergarten's home is a slab. The street where my brother and I used to ride our bikes until dusk are nearly deserted.¹⁷

Aid

Based on their losses, 1,041 Keesler personnel submitted claims to the 81 TRW Judge Advocate office. By 30 April 2006, \$8.3 million in losses were adjudicated, with \$5.0 million

being paid by insurance and \$2.2 million paid by the Air Force to individual claimants. Another \$1.1 million remained unpaid. In addition, a wide range of assistance poured in. The Air Force Aid Society (AFAS) was among the first responders. By 15 September, AFAS had already provided over \$300,000 in financial help to Katrina victims; by the end of the year, more than \$2.1 million had been provided to airmen, soldiers, sailors, and marines in the vicinity of Keesler AFB. Most of the money covered insurance deductibles and temporary home repairs. Initially, funds were given out as interest-free loans, but the parent organization, Air Force Assistance Fund (AFAF), decided to convert the loans to outright grants. Ms Jackie Pope, the base AFAS officer, noted that base personnel had donated over \$45,000 during the annual AFAF fund drive in the spring of 2005. The Air Force Chief of Chaplains and wing chapel programs throughout the Air Force also provided relief, transferring some \$600,000 to the Keesler program for aid to airmen and to those in the local community. The Federal Employee Education and Assistance Fund provided almost \$200,000 to 429 civilian employees in the immediate Biloxi area. The American Red Cross did not specifically track aid given to Keesler families, but its Mississippi chapters sheltered 30,820 people; served 15,220,396 meals and snacks; and provided financial help to 347,344 families affected by Katrina. In addition, some banks and businesses allowed personnel affected by Katrina to skip payments without late fees or penal-



The 81st Training Wing sold coins and a morale patch to raise money for the base's Hurricane Katrina Relief Fund. The items were frequently given in recognition of service in Hurricane Katrina relief operations.

ties, and some financial institutions increased credit lines to help people meet their emergency expenses.¹⁸

The base also established its own Hurricane Katrina Relief Fund to handle financial aid that was donated by individuals or groups outside of a national organization and sold Operation Dragon Comeback coins and patches to raise money that went into this fund. SrA Carlos Moreno came up with the design that featured a dragon, a lighthouse, and Hurricane Katrina emblazoned on the international symbol for a hurricane on the front of the coin. The reverse contained an eagle, representing the Air Force, soaring over a map of Mississippi, with a star to show Keesler's location. Patches had

the same design as the front of the coin. Coins sold for \$7 and patches were \$5, and the initial supply of 500 coins and 300 patches sold out in three days. Altogether, the Hurricane Katrina Relief Fund disbursed nearly \$500,000 to 1,337 personnel, both military and civilian, by 30 April 2006. The biggest single donation to the 81 TRW fund probably came from a 5-kilometer run/walk held at Lackland AFB on 22 October. More than 3,500 people participated in the event and raised \$19,500 for the Hurricane Katrina Relief Fund. Hurlburt Field, home of the Red Horse team that deployed to Keesler, also donated over \$14,000 to the relief fund. CMSgt Todd Small, the 16 Special Operations Wing command chief, stated, "It's air-

men helping airmen. We understand what it's like to have a hurricane hit, and we know what it's like to be Airmen in need.”¹⁹

In addition to monetary aid, furniture, clothing, and the whole array of household necessities also poured into Keesler. Army and Air Force Exchange Service (AAFES) personnel, for example, put together 60,000 comfort kits containing personal care products and clothing, a 120-minute prepaid cell phone, and an AAFES gift card for military families affected by Hurri-

canes Katrina and Rita. When General Looney and Chief Ellison visited Keesler on 1 September, they took with them three bags full of snack foods, bottled water, sun screen, wet wipes, toiletries, and hand sanitizer hastily organized by the command chief's office. For Halloween, airmen from McGuire AFB, New Jersey, donated “cartons of superhero garb, storybook costumes, animal disguises and even a fairy princess gown complete with wings and wand.” The New Jersey base also sent boxes of food, clothes, and cleaning supplies in a



Hurricane Katrina ripped away brick and sheetrock from the first floor of SMSgt David Hufton's home in Ocean Springs, Mississippi, but left the second floor seemingly unscathed. He and his family had not even lived in the house for a month before it was destroyed by the hurricane. The intelligence analyst with the 403rd Wing at Keesler AFB, Mississippi, stayed with his family at a hotel near Dobbins Air Reserve Base, Georgia, after the storm (USAF photo by SMSgt David Hufton).

26-foot long truck filled “from top to bottom, side to side.” Air Force personnel at Hurlburt Field and Laughlin AFB donated toys for the December 2005 holiday season. Four weeks after Katrina, General Lord made a plea to wing commanders throughout the Air Force that they urge those wanting to help the base to “send gift cards from Home Depot or Wal-Mart or phone cards so our folks can purchase the necessities to rebuild their homes and replace basic clothing and communicate with loved ones.” He also asked for volunteer help, but could not promise billeting or food services. If people wanted to take leave to help along the Gulf Coast, they needed to “bring their own food and RVs [recreational vehicles], or acquire lodging in Mobile, Ala., Maxwell AFB, Ala., or Hattiesburg, Miss.” General Lord also told prospective volunteers that there were only a few restaurants open and that the wait was long. No local hotels had yet reopened for business.²⁰

One way people helped one another, and perhaps the most healing of all, was when units simply helped one another. Maj Pamela D. Backeberg, the deputy director for Services, for example, established an emergency relief closet for the civilian employees of her division. Many Services employees lost everything they had in the storm, and this relief operation provided clothing and emergency supplies for two months after Katrina. Colonel Simmons, the Second Air Force director of operations, mentioned putting together a work team from his staff to help their assigned personnel. Colonel

Simmons said simply, “I had two missions I was given as we came out of the shelter...reconstitute the training and take care of our folks.” He put together a small staff to work reconstitution and everyone else was released to take care of one another and start putting back together their lives. The team leader, a chief master sergeant who had been part of a Red Horse team earlier in his career, led the effort to recover what household goods were salvageable and move them into storage, clean out the homes, and get people to the point where they could start coping with the situation. The 45 AS commander, too, mentioned how important the joint clean up effort was. Teams went out daily to help squadron mates and those in the local community. The members of this small unit put in over 800 man hours in clean up and repair efforts.²¹

The determination of civilian pay involved another set of issues that had to be resolved. On 1 September, the central civilian pay office in Pensacola, Florida, advised time keepers to use a special emergency time code, “RX,” to account for time civil service employees lost to Katrina. For offices in the storm-affected area unable to complete civilian time and attendance records, the Defense Central Personnel System would automatically generate the emergency code for employees. Later in the month, the Pensacola unit sent out a list of the most common questions being asked and the answers. The question that headed the list, as might be expected, was “Will I receive my pay even though I am unable to



The 81st Training Wing rented portable storage units so that Keesler AFB employees could store personal belongings they recovered from damaged base housing units. The PODs provided secure storage at a time when families were unable to occupy their homes.



report to work?” The answer was, basically, “Yes,” and allotments, retirement plan contributions, and other payments would continue to be made as previously set up. The Defense Finance and Accounting Service, like

AFPC and many other entities, published websites and a 1-800 telephone number where people could get answers and more specific information. Civilian personnel who left the Biloxi area were expected to begin travel

from their safe haven on 27 September; those in the immediate area who had not returned to work were expected to report to work on the 27th. Civilian employees were encouraged to leave dependents behind, if possible. Personnel were directed to contact their supervisors to outline their personal situation so work requirements could be determined. Recognizing the severity of losses for many individuals, Generals Lord and Capasso extended the end date for termination of excused absences from work to attend to personal issues until 11 March 2006, the maximum allowed by Air Force instruction.²²

Pay and entitlements for nonappropriated fund (NAF) employees posed a different set of challenges, and simply finding some of these workers was difficult. Many NAF employees held low paying jobs and lived in less expensive housing areas in the community. This meant that some avenues of communication available to most Keesler employees were not available to some of the NAF workers. Services division managers, for whom the NAF employees worked, resorted to home-by-home searches to establish accountability for some employees, and base Office of Special Investigations personnel were given access to the video tapes of several financial institutions to see if they could recognize any base employees. While NAF employees, like their appropriated fund counterparts, had their pay automatically deposited in a bank or credit union, some did not have checking accounts or automatic teller machine (ATM) cards, relying

instead on in-person withdrawals to get cash. In the Katrina aftermath, ready access to cash proved a challenge for some. In one instance, for example, a NAF employee headed to Chicago with his extended family. Without checks or an ATM card, he called the Services division at Keesler. The base gave him an advance in his pay, and they arranged to send the money to a financial institution along the route to Chicago where it would be waiting for him to pick up.²³

By the nature of their business, Services outlets, such as bowling alleys, golf courses, and base clubs, relied on their daily business operations to pay their NAF employees. Without any cash income after the flooding, Services managers sought alternatives to provide pay for their employees. The solution the wing arrived at was to establish a memorandum of agreement (MOA) with Services, allowing NAF employees unable to work because their place of employment was shut to temporarily hold appropriated fund jobs while those employees remained in a safe haven or absent from work. Altogether, 79 NAF employees found jobs under this precedent-setting MOA, believed to be the first within AETC if not the entire Air Force. As NAF outlets reopened, the employees returned to their original jobs.²⁴

In addition to the normal pay and allowances earned by military, appropriated fund, and NAF employees, the DoD also authorized the 81st Comptroller Squadron (CPTS) to reimburse personnel for the cost of transportation



Members of the 81st Comptroller Squadron and a 17-person team that deployed to assist them processed 8,829 claims from Keesler personnel.

to and from safe haven, as well as per diem and subsistence allowances to cover the cost of lodging and meals. DoD instructions explicitly covered this entitlement for military and appropriated fund civilian personnel, but the situation for NAF employees was not so clear cut. While CPTS personnel processed claims from NAF employees along with the others, in March 2006, the Office of the Secretary of Defense reaffirmed that NAF personnel evacuation expenses incurred as a result of Hurricanes Katrina (and Rita) should be paid with appropriated funds out of the base operation and maintenance (O&M) account. Altogether, the 81 CPTS and a 17-person team sent to Keesler immediately following Katrina processed 8,829 claims

and paid out \$17.7 million to Keesler personnel.²⁵

Communications

The continuous flow of information was critical to the morale of Keesler personnel. General Lord, a former communications-electronics officer, made improving the communications infrastructure at Keesler one of his priorities when he first arrived at the base. The internet, especially, facilitated the exchange of information as people evacuated, sheltered on base, or sheltered then evacuated. The wing commander had lived through Hurricane Isabel when stationed at Langley AFB, Virginia, and understood how important communications were.



Deployed to Balad AB, Iraq, SSgt Fred Mathis looks at pictures of the damage Hurricane Katrina caused at his home station, Keesler AFB, Mississippi, from his computer at work. Sergeant Mathis, an aeromedical clerk with the contingency aeromedical staging facility at Balad, had a pregnant wife and 3-year-old daughter at Keesler. The Keesler world wide web home page and *Katrina Daily News* were invaluable sources of information for evacuees and loved ones (USAF photo by SrA Tim Beckham).

Keesler's Internet system, based on state-of-the-art fiber optic technology, allowed the Public Affairs office to post a daily, two-page newsletter, the *Katrina Daily News*, advising everyone about the services that were returning to the base, how to process claims, and the myriad of details needed to attain some state of normalcy. The wing also provided as much information as possible about the state of the base and its personnel through the web site.²⁶ In addition to the 81 TRW web page, AFPC and AETC worked together to provide information about Keesler and the training programs in a question and answer format. Questions included: "How many Air Force people are miss-

ing from Keesler?" "Does this include family members?" "What are you doing to account for the people still missing?" Training related questions included: "I have been approved for retraining and scheduled to attend a course at Keesler AFB. Will my retraining be cancelled?" "I've been in an initial skills (AFSC awarding course) training at Keesler AFB and did not complete the course, what happens to me?" "I am awaiting or anticipating an Initial Entry Bonus (IEB) but have not completed technical training due to an evacuation order. Will I still receive my bonus?"²⁷

The base also established a 1-800 telephone number that actually connected the caller to recorded messages at AFPC. Keesler would update the information, telling people “Please call in.” “Please don’t come back.” “Time to file your travel voucher.” “It’s not safe yet.” People around the world could call the number to find out what they needed to do. The base also never lost its DoD telephone system, the Defense Switching Network (DSN). People on Keesler could place a DSN call to another base and have that local base operator patch them through to a commercial number. Nextel, a commercial cell phone service provider, had arrived at Keesler by 1 September to erect a tower and Verizon would be allowed to add their service to the same tower.²⁸

The *Katrina Daily News* became the primary means of communicating vital information. Published seven days a week, the newsletter carried in an abbreviated format the most basic things people needed to know. Volume 1, Number 1, dated 1 September, addressed in some detail the evacuation plan, and, briefly, where people could get a hot meal and where they could go to fill out claims for personal property loss. The same newsletter included a note that USAA representatives would soon arrive from Mobile, Alabama, to help with insurance claims and that a mini-base exchange would be set up in the Triangle dormitory area. The newsletter also announced a “name this operation contest.” “You’ve survived it, you’re living it, now name it.” As noted pre-

viously, the wing chose “Operation Dragon Comeback” as the nickname of the recovery operations. The next day’s newsletter contained encouraging words from General Looney who had visited the base to survey the damage first hand. There was also a note that a second dining facility would soon open, that shower facilities were available in the two fitness centers, and that the mini-BX was open from 12 p.m. until 6 p.m. Financial services had been restored on a limited basis and sick call hours had been reestablished at the medical center. NPS students were shown waiting to board a C-17, and the caption mentioned that more than 500 personnel and their families had already been airlifted from Keesler. Incrementally, the base restoration was documented in the little, two-page newsletter that Colonel Simmons called a “godsend.” The *Daily News* “was the only lifeline to people, and particularly the spouses. You know, ‘Where is the Katrina Newsletter? How come you did not bring it home?’ I mean you were going to get it if you did not have it.”²⁹

The *Katrina Daily News* of 16 September noted that it was being stood down as the base newspaper, the *Keesler News*, readied to resume publication on the 22nd. Apparently, however, the two-page newsletter that had carried people through the aftermath of the storm was so popular, and the need for information so great, that Public Affairs began issuing the *Katrina Daily News Bites*, also on the 22nd. One difference between the *Daily News* and *News Bites* was that

the *News Bites* carried a quick summary of topics addressed by the CAT, including:

- An assignment team was coming next week to help people PCS.
- There were plans to set up temporary housing (FEMA trailers or manufactured housing) by demolishing condemned family housing in the South Harrison Court and Oak Park sections on base. [NOTE: This did not occur.]
- The base would be in a position to ship personal belongings to students who had evacuated.
- The Military Personnel Flight, Contracting, and Traffic Management offices were moving to Cody Hall.
- The 16 Special Operations Wing at Hurlburt Field had donated \$16,000 to the Family Reconstitution Fund.
- Dress and appearance during the work day was becoming a concern.
- The American Red Cross had a financial aid form on their web site.
- Weekly town hall meetings would begin soon.

- Keesler Federal Credit Union expected to open the following week.

- There were a number of unclaimed pets at Maxwell AFB.³⁰

The wing Public Affairs office initially published the *Katrina Daily News Bites* on a daily basis during the work week until 31 October. After that, the *Katrina News Bites* appeared periodically, mostly on Tuesdays or Thursdays, until 8 December. With the holiday season approaching, the Public Affairs staff decided to stop printing and posting to the internet the little newsletter that had initially been the main source of information to the Keesler family.³¹

In view of the rather uncertain situation at Keesler, the rumor mill began working. Chief among them was that the Base Closure and Realignment Commission might decide to close the base instead of rebuilding. Final deliberation over DoD recommendations began on 24 August, and the commission delivered its final recommendations to President Bush on 8 September. With a price tag of nearly \$1 billion to rebuild Keesler, many thought that the base might be a late addition to the list of closure or realignment actions. In fact, the commissioners chose not to make that last minute change to the recommendation they sent to President Bush on 8 September.³²

On Labor Day, 5 September, General Lord held the first in a series of

town hall meetings to bring together everyone on base to address their concerns and provide a status report. Earlier in the day, the wing commander made the rounds of the local media, to include an interview on a local radio station, a television appearance, and a meeting with the local newspaper.³³

Medical Care

The base hospital did double duty, providing not only medical care to patients, but also serving as a shelter during the storm. Unlike other shelters, the hospital had a large number of people with existing health care problems. Providing critical care services, in the short term, required extraordinary measures. The medical group almost lost two patients who lived on ventilators in the intensive care unit (ICU). Just as the hospital was running out of batteries to power the life support systems, civil engineers drove up with small portable generators and ran cables from outside the building, upstairs, and into ICU.³⁴

The medical group air evacuated 25 patients who had been hospitalized to Lackland AFB, and an additional group of 31 pregnant women who were close to delivery and their families. Over the next few weeks, the staff moved people by ground to nearby Air Force bases where their needs could be met. One of the most remarkable stories was the birth of a baby, delivered by Caesarian section. The doctors and attending staff, nearly 50 people alto-

gether, performed the operation using seven battery powered lanterns and three “headlights,” lights on a harness that fitted over the heads of the three people doing the close-in work, much like lights miners use while underground. With much advance preparation, the procedure lasted 23 minutes. Dr (Maj) Jaye Adams, the supervising physician, told Susan Griggs, a base newspaper reporter, “We draped her, prepped her and boom-boom-boom, they got that little girl out.” The crowded delivery room, already warm because there was no air conditioning, got very uncomfortable. “We kept fanning the patient to try to keep her cool.... Some people felt faint and nauseous. Afterward, we were all totally saturated—underclothes and overclothes.” The 8 pound, 3 ounce baby girl and mother were just fine.³⁵

To make the best of their situation, the medical group began relocating operations. The emergency room had flooded, so urgent care services moved into the surgery clinic. The clinical research laboratory, in a building separate from the hospital, had its own electrical power system and was pressed into service as an aid station. The lab also had surgical suites, so the staff set up emergency surgical services there. The medical group set up an expeditionary medical system (EMEDS) in tents across the street to provide emergency care services and walk-in primary care. The base patched up the large dental building and the medical group moved its outpatient operations—pediatrics, internal medicine, family practice, and



Industrial flashlights were used to illuminate the surgical field for a baby's delivery at Keesler AFB, Mississippi, by C-section just after the peak winds of Hurricane Katrina had passed (USAF photo by Maj Betsy Majma).

women's health—there as an interim measure. By 1 December, the medical clinics set up in the dental clinic had returned to the hospital building, or were expected to return shortly. As students started returning, the staff reopened the clinic in the dormitory area. The pharmacy had been destroyed, but Wilford Hall in San Antonio set up a 1-800 telephone number and began filling Keesler prescriptions long distance. By November, the medical group was filling over 1,000 prescriptions per day using the telephone and FedEx. Little by little, the staff was able to restore services, making use of rooms as they were repaired and became available. One key save during the flooding after the storm was the 150,000-plus medical records stored in the basement of the hospital. In addition to the electrical distribution system, the hospital lost its MRI machine and the elevator when the basement flooded.³⁶

To relieve the Keesler medical staff, personnel from Sheppard, Vance, and Luke manned the EMEDS for two weeks. Col Michael W. Miller, the 82nd Medical Group commander from Sheppard, headed a team of 56 people, 48 of whom went to Keesler in a TDY status. Of the 48, Sheppard's medical group provided 40, the medical schoolhouse supplied 8. Colonel Miller tailored the capabilities to meet the needs at Keesler, adding family practice practitioners and a dentist. On

Tuesday, 6 September, the team left Sheppard. After spending a couple of days working alongside the Keesler medical staff, the relief team took over the EMEDS on the 9th. The day before they returned to their home bases, the medical team and the Keesler staff disassembled the EMEDS because they were concerned that the tented area might be torn apart if Hurricane Rita were to make landfall near Biloxi.³⁷

Another key medical "deployment" involved the Critical Incident Stress Management team of mental health providers—two psychiatrists, two psychologists, four social workers, a psychiatric nurse, and five mental health technicians—to help deal with the personal trauma and the toll being exacted by the stressful conditions. These practitioners, from Wilford Hall, Columbus, and Tyndall, landed at Keesler on 3 September and, by the 5th, had established two contingency mental health clinics. While a significant

number of Keesler personnel experienced acute anxiety and grief, according to General Dougherty there were few cases of post-traumatic stress disorder. Over the next three weeks, the mental health response team maintained round-the-clock services. In addition to working with the Keesler Family Support Center, the chaplains, unit commanders, and the first sergeants, the team did extensive outreach to individuals and organizations. They also accompanied FEMA teams into the local communities and Navy mental health response teams to the Stennis Space Center, the Gulfport Construction Battalion, and Pascagoula Naval Air Station. More mundane, but, nevertheless, essential work involved helping clean up the medical center and going out into base housing to help families recover their household goods. In the months after the storm, the medical staff at Keesler began seeing cases of “chronic fatigue and stress characterized by sleep difficulties, low energy level, and disinterest in outside activities.”³⁸

Personal Services

With so many Keesler personnel confronted by questions concerning fundamental aspects of life—shelter, food, clothing, etc.—the wing quickly established a centralized process to deal with the issues. To help people meet a wide variety of needs, the base set up a Family Assistance Control Center (FACC) in the Levitow Training Support Facility, located in the Triangle dorm area. Legal, Finance,

Life Skills, and Family Support offices were all collocated in one facility. Described as “a virtual umbrella of agencies—and more—each poised to help people meet their needs in a stressful period filled with many unknowns,” the FACC was “a one-stop shop” where material and spiritual needs could be addressed. Maj Patrick Franzese, the 81 TRW deputy staff judge advocate, suggested that the key to getting aid was having the proper documentation and that powers of attorney were important for people whose families were evacuating. In the first days of operations at the FACC, the wing legal office held briefings about how to file claims every hour throughout the day, even on Saturday and Sunday. Representatives from USAA and GEICO, two of the leading insurance providers for military personnel, also set up offices in the Levitow building. To meet immediate needs, the finance office provided cash advances up to \$200. AFAF would provide single active duty military members up to \$250 and military families up to \$500.³⁹ Two weeks after the storm, a Military Personnel Flight had opened in the Levitow building to process the full range of personnel actions, including assignments, retirements, and separations. A temporary Retiree Support Office opened in the Family Child Care Center in the Thrower Park housing area.⁴⁰

Although Katrina put the main base exchange (BX) and commissary out of commission, these outlets were just two of many retail operations on base. While getting students back into

the classroom was a huge triumph, morale, to a large degree, hinged on the day-to-day niceties of life, many of which were wrapped up in AAFES and commissary outlets. The first issue of *Katrina Daily News* carried an announcement that a mini-base exchange was in the process of being set up. By 1 September, the mini-mall retail store, a small BX, was back in operation, operating, initially, with emergency generators. The store set a 10-item purchase limit and offered generators for sale; service members could also buy up to 10 bags of ice, which did not count against the 10-item limit. Store managers also expanded the inventory, adding alcoholic beverages, electronics, and housewares. Retail sales went from about \$150,000 per month to \$900,000. The AAFES service station opened on the 3rd. People evacuating the area had first priority, though gasoline was available in limited quantities. There was a \$25 limit on purchases, only cash would be accepted, and people had to pre-pay. On Monday, the 5th, the BX began operating from 10:00 a.m. to 5:00 p.m. and allowed personnel to buy “milk, bread and more” with no purchase limit. The gas station also extended its hours, and, by the 7th, managers decided to allow credit card purchases up to \$30, 24 hours a day. MSgt Stephen B. Ellis, a member of the Second Air Force staff, commented that “the morale of the base changed two days after the hurricane when the AAFES senior leader came in and said, ‘I have three truckloads right behind me and we are bringing ice, water, food, and gasoline.’”⁴¹

During the second week of operations, the Subway and a barber shop reopened in the mini-mall, and AAFES officials announced that they would move the military clothing sales, a General Nutrition Center, and a beauty shop into the complex within 30 days. With only limited dining options available to base personnel, the Subway would set a record by selling \$21,000 worth of meals in one week. By the 11th, the *Katrina Daily News* was advertising base library and community center hours, 3:00 p.m. to 10:00. Over 300 people visited the community center the first night it was open, although the facility experienced power outages and only a few staff members could be located to run the operations. A mini-mart sold a variety of food and drink items, plus toiletry articles in Muse Manor, the main on-base billeting hub; the Warrior Lounge, a place for enlisted airmen to gather, began Friday and Saturday evening operations. By the end of September, AAFES added a Seattle’s Best Coffee shop, an internet café, a military clothing sales store, a laundry and dry cleaner, an alterations shop, and a beauty salon to the mini-mall. The base theater reopened during the first weekend of October.⁴²

To provide a commissary outlet, the base converted 31,000 square feet of the community center into a temporary facility. Work began on 19 September, with Services personnel helping remove all of the furnishings from the Community Center to accommodate the store operations. On the 29th, the temporary facility opened. Frank Sholedice, the store director,



The community center on Keesler AFB, Mississippi, was converted into a temporary commissary with the help of the 56th Civil Engineer Squadron from Luke AFB, Arizona. The restoration of services like the commissary boosted morale on the battered base.

found the move “an easy transformation.” Defense Commissary Agency (DeCA) contractors and engineers worked with the civil engineer squadron on the move and refitting of the center. At the opening, the parking lot was full and a line of patrons stood outside the doors. Store hours extended until 7:00 pm, and permanent party civilians were allowed to shop in the store.⁴³

The Child Development Center (CDC) and Youth Activity Center (YAC) also played key roles in the return to normalcy. The CDC was little damaged by the storm, and director Maria Ochoa and her staff returned to work on 7 September. The center reopened on the 14th with four children.

The *Katrina Daily News* first carried news items for services at these two centers on 15 September. Both were open from 7:00 a.m. until 5:00 pm, Mondays through Fridays. Initially, families with two military parents or single military parents who were in mission essential billets had priority; next in priority were military members with civilian spouses who worked on base and were considered mission essential. Finally, mission essential non-appropriated fund employees who could not resume work without child care were allowed to place their children in CDC and YAC programs. Families who had been customers before Katrina received preference. Officials expected a number of family child care providers to reopen for busi-



Yvonte Larosier, 3, draws a picture of flying debris from Hurricane Katrina for Sandra Markland at the child development center at Keesler AFB, Mississippi, on 21 February 2005. The children's drawings were displayed throughout the center as a means for them to express their feelings about the hurricane as the base began to return to normalcy. Yvonte's mother is SSgt Lakeisha Larosier of the 81st Dental Squadron (USAF photo by TSgt Larry A. Simmons).

ness in the local area, but the base had to inspect their homes before they could officially take children from Keesler AFB families. By the end of September, the CDC and YAC had extended their hours to 6:00 pm, and during the first week of October the YAC began opening at 6:00 a.m. during the week and offering Saturday hours of 10:00 a.m. to 2:00 pm. By mid-month, the 81st Services Division had certified five local child care providers, who had space available for five children through age 2 and for seven children ages 3 and older. Also, one

provider offered care for mildly-ill children, and Services was looking for more child care providers. The CDC was open from 6:00 a.m. to 6:00 pm, and there was space available; the YAC had begun offering a before- and after-school program for children in kindergarten through 6th grade.⁴⁴

Because Keesler AFB had no school of its own, children of families who lived in base housing went to Biloxi public schools or to private schools. On 26 September, a week earlier than first expected, Biloxi public

schools reopened with slightly more than half the number of students that had been enrolled before Katrina, 3,167 compared to 6,125. By 31 October, the Biloxi schools had recovered two-thirds of its students, and enrollment showed only slight growth through the end of the year. Just under 70 percent of the students that had been enrolled prior to the storm returned when the schools reopened after the Christmas/New Year's holiday break. Ocean Springs public schools also reopened on 26 September.⁴⁵

Another critical piece of everyday life was mail delivery. An article in the 10 September *Katrina Daily News* noted that "Neither rain, sleet, snow, nor hail can stop the post office from delivering on time. But a hurricane is a little different...." Both on- and off-base postal facilities had been damaged in the storm, so HQ AETC sent a three-person team, headed by SMSgt Salvador Orozpe, to Keesler to help get mail service reestablished. Mail headed to the base was being held in Jackson, Mississippi, and Memphis, Tennessee, and mail that had been delivered as far as Gulfport was quarantined until it could be checked for hazardous material and contamination. Katrina did not damage the base's Official Mail Center (OMC) in building 901. Postal Service Center (PSC) #1, however, in building 3913, sustained major water damage; PSC #2 in building 7310 was undamaged and could accommodate the mail from PSC #1. The OMC reopened on the 9th, but because so many offices had been set up in new locations, unit representatives

had to go to Building 901 for pick up. Base representatives were also able to pick up regular mail from the West Biloxi Post Office beginning on the 9th, and they gathered nearly 5,000 pieces of mail on Friday and Saturday. Five of the six assigned PSC employees reported for work on Monday, the 12th, to open the now-consolidated postal facility. Over the weekend, Mr. Jerry Wieck, the West Biloxi Postmaster, agreed to release mail destined for base housing to building 901, and the base postal team picked up almost 6,000 pieces of mail on the 12th. To get their mail, family members had to come to a service window in building 901 and tell the clerk at the window where they lived and their name. Mail would be retrieved from letter trays marked for each of the housing areas. Several families picked up mail from the new center on the 12th, and the postal team began advertising their services. The West Biloxi Post Office made its first delivery to the base the next day, delivering about 6,000 pieces of personal mail for on-base housing residents. By the 15th, the Post Office had begun delivering mail to the West and East Falcon housing areas on base as people returned to their homes. The base received forwarding addresses for students who had evacuated to Maxwell and Sheppard on the 13th and began clearing out those pockets of mail; for those who had gone on to new permanent duty stations, their mail was forwarded to their new duty stations as change of address cards came in. Initially, Post Office facilities remained open from 8:00 a.m. to 4:00 p.m., seven days a week, to catch up

the backlog. On 5 October, the U.S. Postal Service set up 36 cluster mail box units, with 576 mailboxes altogether, outside the main base Post Office for families who had been used to getting mail at their on-base houses. The cluster units were primarily for families in Harrison Court and Oak Park housing areas, but displaced Bay Ridge and Pinehaven residents who did not want mail delivered to their former addresses could also use the new mailboxes. By 18 October, all mail services had returned to normal.⁴⁶

Chapel Programs

As with any traumatic event, the spiritual needs of Keesler personnel were an important part of the recovery effort. The wing's seven chaplains and two enlisted staff worked closely with the shelter commanders and organized activities such as Bible studies and prayer groups. As with everyone else, Katrina was a new experience. Chaplain Sill, the senior chaplain, mentioned that "a lot of what we did was just to move around and be with the people to hear what they were going through, to have a prayer with them, to encourage them, and that sort of thing." The Fishbowl Student Ministries Center, located in the Levitow building, took on increasing importance in the aftermath of the storm. Originally established by the chapel as a place for recreation and less formal student fellowship, the Fishbowl had a big screen television, which was one of the first places on base where people could watch the news and see what

was happening along the Gulf Coast.⁴⁷ The center was also a place to watch movies, play foosball and board games, play musical instruments, and get hot or cold beverages. Chaplain (Capt) David Barns, quoted in the 4 September *Katrina Daily News*, said:

*We're here to help our folks with anything—spiritual or not. We can provide answers for those wanting to know who to talk to for many different things. We seem to be a good control hub of getting info out to people, and this is a good place for people to get out of their hot dorms that are without power.*⁴⁸

When the wing set up the FACC in the Levitow building, the chapel's outreach program suddenly became immediately accessible to all at the crossroads of their daily lives. "People needed a place to go, so we kept the popcorn, drinks, and snacks flowing," said Chaplain (Maj) Timothy Butler in an interview with the base newspaper. In fact, by 10 September, the chapel staff planned to hold all of its regular worship services in the Fishbowl. These included two Protestant services, a Catholic mass, and a Latter Day Saints meeting on Sunday; a Wednesday evening prayer meeting and Bible study; and a Friday evening Jewish Shabbat service. To help meet the needs of the Keesler community, 12 additional chaplains, nicknamed "Angel One," deployed to the base to augment the local staff. After 30 days,



The 81st Training Wing Chaplains, along with “Angel One,” a group of 12 chaplains who augmented them, provided pastoral care to Keesler personnel.

Angel One left and Angel Two, 6 chaplains, arrived on base.⁴⁹

By mid-October, the chapel had added a number of services to its repertoire and returned services to Larcher Chapel. Catholic Sunday mass was held in the chapel at 10:00 a.m., and the base newspaper advertised Catholic Tagalog worship services being held in Biloxi. Two traditional Protestant Sunday services were held in the base chapel, at 8:30 and at 11:30 a.m., while a contemporary service for students was conducted in the Fishbowl at 10:00 a.m. The Triangle Chapel hosted a Sunday Protestant service at 1:00 p.m. Islamic services were held in building 2003, allowing a place for prayer the requisite five times a day, along with a congregational prayer at noon on Fri-

days. Katrina destroyed Biloxi’s Beth Israel Synagogue, but the area’s Jewish community celebrated Yom Kippur in the base chapel. Latter Day Saints held services in the Fishbowl at 4:30 p.m. on Sundays.⁵⁰

Special Events

The ceremonies of life provide a sense of community, and simple things like the first wedding following the hurricane and the first retirement signaled some return to normalcy. On 3 September, “the moment LaVerne [Hawkins] and I were released from the shelter,” TSgt Daryn McMullen and his girlfriend of three years were married outside Wolfe Hall. To make the occasion more festive, “the



The 81st Training Wing held an “After Hurricane Katrina Base Barbeque” at the base marina on 14 October 2005 with food, games, boat rides, and live music.

groomsmen wore reflective safety belts while the bridesmaids wore reflective safety vests,” according to an article in the 22 September *Keesler News*. TSgt McMullen wore his battle dress uniform with a bow tie made from yellow caution tape; the bride wore a yellow dress. The wedding had been scheduled for the 8th, but the couple decided, “Why wait? Let’s do it right now.” Chaplain (Capt) Randy Sellers performed the ceremony. While TSgt McMullen and his wife were embarking on a new life together, the Family Support Center superintendent, MSgt John Lowe, was also moving on to another stage in his life. He was the first person on Keesler to retire following Katrina, separating from the service on 7 September.⁵¹

It was important to keep permanent party personnel and students busy and engaged to help take their minds off of their own losses. One of the most effective ways of doing this was to allow them to help out in the local community, and the *Katrina Daily News* for 5 September detailed aid provided by the base. The first missions left the base on the 3rd, less than a week after Katrina hit. People sheltering in Biloxi Junior High School were getting sick because of a lack of sanitation and food. Pediatricians, nurses, a chaplain, and 81st Services Squadron personnel delivered nearly 500 MREs, more than 1,400 bottles of water, a truckload of ice, and medical supplies. Later that day, a second group of nearly 30 people took supplies to the city’s two community distribution cen-

ters. Photographs in the *Katrina Daily News* supplemented the article, and the newsletter carried a notice that the Top III association, composed of members from the three highest enlisted grades, would be discussing volunteer opportunities. A second notice in the paper stated that dependents who wanted to reach out to the local community could do so by signing up at the Family Assistance Center.⁵²

Lt Col Christopher Cook, the 338 TRS commander, however, noted that even working in the community and rebuilding the base could hold off boredom only so long, when so many of the on-base recreation facilities were out of commission. "I am seeing that the students are very happy to get here because they want to be part of this. They want to help. About the second or third week it is like, 'Boy this place stinks. There's nothing to do here.'" Recognizing this challenge, gym and on-base recreation facilities were among the first to resume operations, with the main base fitness center resuming operations only four days after Katrina; the base library had reopened by the 11th. By the end of the year, almost all major recreation programs had been reestablished; the most prominent exception was the intramural sports leagues. The lack of certified officials was the main reason prohibiting league play, according to Tim Cline, the fitness center director; another was the lack of squadron representatives to the base sports council. A Turkey Bowl flag football tournament, held in November, was the only major, organized outdoor intramural

event held during the last months of 2005. The Triangle fitness center remained closed at the end of the year.⁵³

The first big blowout celebration occurred on 14 October, when the base held an "After Hurricane Katrina Base Barbecue" at the base marina. Home Depot sponsored the event and U.S. Foods donated hot dogs, hamburgers, and ice cream. Soft drinks were free; beer cost \$0.50 per cup. Two bands, Rochambeau and Illbreak, and contemporary gospel artist Michael A. Smith provided music, and there were free games and pontoon boat rides available. For "Operation Comic Relief," held on the evening of 19 October, the base brought in three comedians for a show held in the open area behind the Levitow building. The free event was adult oriented, though family members were allowed to attend. The wing provided food and beverages free of charge.⁵⁴

One of the highlights in the base rebuilding effort was a concert performed by country-western band Lonestar on 4 November. Band members visited base facilities before the concert. The 27th Annual Salute to the Military, originally scheduled for 17 October, was postponed until 15 November because of Katrina. This gala, though formal event, was traditionally held at the Mississippi Coast Coliseum Convention Center that looked out on the Gulf of Mexico. The building sustained major damage during the storm, so civic and military leaders decided to use the Naval Construction Battalion Center in Gulfport



A few days after the barbeque, Keesler AFB offered “Operation Comic Relief,” with three stand-up comedians providing much-needed laughs.

for the event. Usually a formal dress affair, active duty personnel were allowed to wear the uniform of the day and civilians wore business casual dress. Admiral Michael Mullen, Chief of Naval Operations, was the featured speaker. Senator Thad Cochran (R-MS), Congressman Gene Taylor (D-MS), Mississippi Governor Haley Barbour, Chamber of Commerce chairman Duncan McKenzie, and the commanders of each of the Gulf Coast area bases all joined in recognizing the contributions of the military and in welcoming home several troops that had recently returned from deployment. The Air Force Band of Mid-America, based at Scott AFB, provided musical entertainment. Tickets cost \$50 for civilians and retired military personnel, \$40 for active duty military.

The event also commemorated the 60th anniversary of the end of World War II.⁵⁵

A further indication of the return to normalcy was the traditional Halloween trick-or-treating in base housing on 31 October. In the 27 October edition of *Keesler News*, the Youth Activity Center advertised a Fall Festival Family Fellowship to be held on Halloween night and people were urged to dress up as their favorite Bible hero or heroine. The YAC also hosted an open house on 27 October and announced Super Saturday programs for children age 6 and older. The center held a Halloween party on the 29 October and a talent contest on 5 November for teen aged children and families. The editions of the *Keesler*

News through the end of the year chronicled a growing number of what under normal circumstances would be the expected and typical base events, including Thanksgiving, Christmas, and New Years Eve celebrations, but were even more memorable in the aftermath of Katrina.⁵⁶

A host of visiting dignitaries also kept the base busy in the immediate aftermath of the storm. General Looney and Chief Ellison were the first, arriving on 1 September to survey the damage and to provide encouragement. "Every part of the country is standing up with you. We have challenges that lie ahead, but we will turn loose the resources of the Air Force to get Keesler and its families back on their feet," the AETC commander told base officials. Mrs. Looney and Mrs. Ellison accompanied their husbands to visit with spouses; Senator Cochran also visited the base on the 1st. President Bush and Senator Trent Lott (R-MS) made a brief stop at Keesler while visiting the Gulf Coast region on the 3rd, and Secretary of Defense Donald Rumsfeld, and a number of officials made a longer stay on the 4th. General Richard Myers, Chairman of the Joint Chiefs of Staff; Admiral Timothy Keating, U.S. Northern Command commander; Lt Gen Russel Honoré, commander of Joint Task Force Katrina; and Maj Gen Harold Cross, the Mississippi National Guard adjutant general, accompanied Secretary Rumsfeld. After being briefed on the status of the base, the delegation toured the base's housing and industrial areas. Inside the Levitow building,

Secretary Rumsfeld addressed a large group of service members and their families, expressing his condolences for their losses and acknowledging their stress and frustration. Putting Keesler into context, however, the Secretary of Defense said that, "This base is blessed. As bad as it is [here], when you fly in a helicopter and see this area, it's just amazing to see the damage that's been done."⁵⁷

Evacuees: The Sheppard Experience

While Keesler evacuees scattered throughout the U.S., fleeing the storm or returning to their home duty station, just over 1,200 ended up at Sheppard AFB. Included in that number were over 200 were instructors and staff personnel assigned to field training detachments in the Mississippi Gulf Coast with Sheppard parent units. During one of the first HQ AETC CAT meetings, Brig Gen James A. Whitmore, the 82 TRW commander, offered to provide housing for evacuees. Sheppard received 431 NPS students, 2 TDY-to-School students, 2 permanent party personnel, and 2 dependents on 1 September, the first day of air operations out of Keesler, and expected another 700 students over the next couple of days. General Whitmore said his base could accommodate about 4,000 students and 1,000 instructors if need be. By noon on the 3rd, Sheppard had received a total of 1,226 evacuees, including a number of families, about 75 adults and children, from Keesler.⁵⁸ Numerous Guard and



Personnel from the 82nd Training Wing provided a phone bank to Keesler AFB students who evacuated to Sheppard AFB, Texas, so they could call concerned relatives. Many students also wanted to recharge the depleted batteries of their personal cellular phones.

Reserve students were released almost immediately to go home and some students were graduated from their classes and sent to their next duty station, but Sheppard would be home for over 600 students for two weeks. The first major move of evacuees from Sheppard came on the 16th when C-130s based in Little Rock returned 139 students to Keesler, with another 481 students remaining to be moved. The strategic pause in technical training reconstitution, plus the threat of Hurricane Rita, slowed the flow of students back to Keesler. By the 25th, Sheppard still had 332 Keesler students on hand, almost none of whom returned to Keesler. Instead, the 82 TRW took “ownership” of them and PCS-ed them to their next

duty stations, accepted them into training at Sheppard, or assimilated Sheppard detachment personnel who taught courses at Keesler back into their parent units.⁵⁹

The 82 TRW had only a few hours notice before the first planeload of students arrived. Personnel from the 82nd Mission Support Group, the training groups, and Services set up a reception center in the Airman’s Club, which could handle up to 250 airmen at one time, and which Sheppard used regularly for new airmen orientation. The Military Personnel Flight, where student accountability was established, was the first stop for in processing, then came a Training Operations table

where staff members assigned evacuees to the wing's training squadrons based on the students' AFSCs. Medical students from Keesler were put in Hogan Hall with medical students taking courses at Sheppard; aircraft maintenance students were assigned to White Hall with avionics students. Inbound airmen also visited information stations manned by base legal, the chapel, the Family Support Center, medical, and Services. Understanding that the evacuees would arrive at Sheppard with little or nothing, Services personnel assembled nearly 1,600 gift bags that contained towels and wash rags, telephone calling cards, and toiletry items such as soap and shampoo, shaving cream and razors, toothpaste and tooth brushes, and hair brushes and combs donated by the base exchange, the Air Force Aid Society, local businesses, and people in the community.⁶⁰

It should be noted, however, that there were no set operating procedures and few guidelines to follow. Maj Gregory Smith, the Sheppard CAT director and 361 TRS director of operations, outlined some of the issues. "How do you in process that many students? Where do they go to? Who do they become attached to?" Another problem was communication. The Sheppard command post would call their counterparts at Keesler to ask them if they knew how many aircraft were coming, what kind of aircraft, and how many students to expect. Major Smith noted, "We didn't always get a manifest and then, sometimes, it wasn't always accurate, but given the situation that was going on at Keesler I

think they were just working on trying to get the students out of there as quickly as possible.⁶¹

General Whitmore and CMSgt Douglas Kesler, the 82 TRW command chief, tried to meet and greet as many of the students as possible as they got off the planes. Wing personnel would escort them to the Airman's Club, "and when they came through the door, we all cheered and hollered for them." At the reception center, the evacuees in processed. This short process entailed assignment to one of the training squadrons for accountability and gathering up bags packed with basic necessities and coupons for a variety of base activities. Within an hour, the airmen were taken to one of the base dining facilities and fed, then given a dormitory room, where they could get a hot shower.⁶²

Maj Bruce Gooch, the mission support squadron commander, was responsible for setting up the reception center. The warmth of the reception at Sheppard had an impact on both the evacuees and on the wing. For the wing, Major Gooch, who had been at Sheppard for only four or five months at the time Katrina hit, it was an opportunity to do something out of the ordinary. "Having this real world situation just dumped in your lap...folks are like "Yes!" The event pulled the base together as everyone made the evacuees welcome. As might be expected, the evacuees were downtrodden upon their arrival,



Sheppard AFB, Texas, gave a hearty welcome to Airmen evacuated from Keesler AFB, many of whom had graduated from Basic Military Training only days or weeks before Hurricane Katrina.

Coming into the door [of the reception center] with their heads down, some of them in tears, but as soon as they walked in...the whole place went nuts. Folks were clapping and shaking hands.... We basically stood up in front and said, 'Welcome to Sheppard AFB and we are going to take care of you for however long you are going to be here.'⁶³

Chief Kesler described the emotion of many evacuees:

You know, [they] had an airplane pick them up and

brought them to another air force base. Then they get out here, everything is beautiful, the dorms are beautiful, the grass, the dining facilities...they were just overwhelmed. They felt they really did the right thing by joining an organization like the Air Force, an organization that will take care of them.⁶⁴

In addition to having an information table in the reception center, wing chaplains and enlisted assistants “filtered through the crowd as the kids were processing and eyeballing the kids that looked like they were dis-

traught and then pulling them aside and chatting with them....” One of the first orders of business was to give a cell phone to the evacuees so they could call loved ones. Some had not had time to call home since they first sheltered, and many parents had no idea that their children had been airlifted to Sheppard AFB. Much like the Fishbowl at Keesler, the chapel staff steered airmen to Sheppard’s Solid Rock Café, an old gym that was renovated to include a kitchen, ping pong tables, and large screen TVs. During the course of a normal month, up to 4,000 Sheppard students visit with chapel staff and attend bible studies and worship services. A number of Keesler airmen talked with chaplains or just found it was a nice place “hang out.” One evening, the Solid Rock Café hosted a special dinner for the Keesler evacuees, though others were also allowed to attend. Sheppard personnel donated over \$4,000 for Keesler through the chapel staff. As things turned out, one of Keesler’s chaplains evacuated to Sheppard and helped meet the students arriving Keesler.⁶⁵

The base kept the dining halls open for extended hours during the first week of September, made box lunches for aircrews, and put together snack bags for students to take to their dorm rooms. Services also kept the base fitness centers and student centers open longer than normal, with some people working 18-hour days voluntarily. That Labor Day weekend at Sheppard, the wing’s first sergeants had a cookout for the evacuees. Downtown businesses donated the

food and one even sent out a mechanical bull for entertainment.⁶⁶

Conclusion

Presented with a disaster of unprecedented scale, life for many Keesler personnel gradually returned to normal. Others, however, continued to struggle with reassembling their personal lives after losing their homes and virtually all of their belongings. Many people met adversity with patience and good humor, encouraging one another in dangerous, uncomfortable, and unfamiliar circumstances. Many faced acute anxiety about the uncertainty of their futures and grief over their losses. An array of wing agencies did their utmost, under extraordinary circumstances, to meet the physical, spiritual, and financial needs of Keesler personnel, and other Air Force units, commercial interests, and aid societies rallied to help. The loss of base facilities forced offices to move into available space, and the medical group staff, faced with the temporary loss of the hospital, found alternative methods, including the use of an EMEDS kit, to reestablish most services. Keeping people busy was one key to the healing process, and community outreach let Keesler personnel see the bigger picture of destruction and despair along the Gulf Coast. High level visitors assured the base that the command, the Air Force, and their elected officials were aware of the situation and that they would provide help. At the same time, however, the visits interrupted the hard work of re-

building the base and community life. By the end of the year, the base had made remarkable progress in reestablishing its normal routines, though much remained to be done.

¹ Intvw, Cully and Ashcroft with Brig Gen Lord, 2 Nov 05; Intvw, Ashcroft with Lt Col Dale G. King, *et al.*, 3 Nov 05; Intvw, Cully with Lt Col Randy Coats, 2 Nov 05.

² Intvw, Cully with Lt Col Coats, 2 Nov 05; Email, Richard Emmons, AETC/HO, to Ashcroft, *et al.*, “FW: Shelter Commander Memoirs,” 27 Sep 05, w/atch: Article, Lt Col Randy Coats, 333 TRS/CC, “Command: Category 4,” Sep 05. See, for example, “Helter-Shelter,” in AETC’s *Torch* magazine, Nov/Dec 05, pp. 8-11.

³ Email, Richard Emmons, AETC/HO, to Ashcroft, *et al.*, “FW: Shelter Commander Memoirs,” 27 Sep 05, w/atch: Article, Lt Col Randy Coats, 333 TRS/CC, “Command: Category 4,” Sep 05.

⁴ *Ibid.*

⁵ Email, Richard Emmons, AETC/HO, to Ashcroft, *et al.*, “FW: Shelter Commander Memoirs,” 27 Sep 05, w/atch: Article, Lt Col Randy Coats, 333 TRS/CC, “Command: Category 4,” Sep 05.

⁶ Intvw, Ashcroft with Brig Gen James J. Dougherty, 81 MDG/CC, 3 Nov 05.

⁷ Intvw, Cully and Ashcroft with Brig Gen Lord, 2 Nov 05; Article, “Pet Information,” *Katrina Daily News*, 3 Sep 05, p.2; Email, 12 FTW/CP to 42 CAT Admin, *et al.*, “AETC SITREP Hurricane Katrina 009 DTG 082301ZSep05; A “Kat” Tale, p. 6. According to the HQ AETC Services Division, the total number of pets sheltered was 172; see Email, Les Coalson, AETC/A7VE, to Ashcroft, “FW: Katrina-Keesler History,” 7 Apr 06, w/atch: Katrina Study ch4 (draft).

⁸ Email, Richard Emmons, AETC/HO, to Ashcroft, *et al.*, “FW: Shelter Commander Memoirs,” 27 Sep 05, w/atch: Article, Lt Col Randy Coats, 333 TRS/CC, “Command: Category 4,” Sep 05.

⁹ Intvw, Ashcroft with Col Robert F. Simmons, 2 AF/DO, *et al.*, 4 Nov 05.

¹⁰ *Ibid.*

¹¹ Intvw, Cully with Col Steven T. Sill, 81 TRW/HC, 3 Nov 05.

¹² *Ibid.*

¹³ Article, “Assignments,” *Keesler Daily News*, 3 Sep 05; Article, Bruce Rolfsen, “Keesler Airmen Go Home Early,” *Air Force Times*, 15 Sep 05, from AETC News Clips, 15 Sep 05, at <https://www.aetc.af.mil/pa/AETC-Clips/index.htm> accessed 16 Sep 05; see notes in “CAT Daily Updates,” *Katrina Daily News Bites*, 27 Sep and 3 October 05; Article, Roy Hoffman, “Keesler Recovers from Katrina,” *Mobile Register*, 15 Nov 05, from AETC News Clips, 15 Nov 05, accessed 16 Nov 05; Email, Tony Taylor, AETC/A1FA, to Ashcroft, “RE: Keesler Personnel Assignments/Katrina,” 15 Mar 06, w/5 atch: 1) Email, Tony Taylor, AETC/A1FA, to Tony Taylor, AETC/A1FA, “FW: Keesler Unique Requests...,” 15 Mar 06, 2) Email, Tony Taylor, AETC/A1FA, to Tony Taylor, AETC/A1FA, “FW: TOS/DLA/Retainability Waivers,” 15 Mar 06, 3) Email, Tony Taylor, AETC/A1FA, to Tony Taylor, AETC/A1FA, “FW: Keesler,” 15 Mar 06, 4) Email, Tony Taylor, AETC/A1FA, to Tony Taylor, AETC/A1FA, “McHale-Mauldin Hurricane Katrina Task Force—Weekly Suspense,” 15 Mar 06, 5) Email, Tony Taylor, AETC/A1FA, to Tony Taylor, AETC/A1FA, “FW: Keesler Assignment Action Snapshot,” 15 Mar 06; Email, Maj

Barbara A. Cain, AETC/SGX, to Ashcroft, "Coordination on Chapter of Katrina Study," 11 Apr 06, w/atc: Katrina Study ch4 (draft). AFPC did not assign any special code for officer assignments, making identification of Katrina-related transfers impossible to verify; see Email, Capt Tom J. Sawyer, AETC/A1FOS, to Ashcroft, "FW: Officer PCS Codes for Keesler," 31 Mar 06.

¹⁴ Intvw, Mason with Gen William R. Looney III, AETC/CC, 13 Feb 06.

¹⁵ Intvw, Mason with General, 13 Feb 06; Articles, SSgt Lee Smith, "2nd Air Force—Gould," and Susan Griggs, "81st TRW—Capasso," *Keesler News*, 17 Nov 05, pp. 1 and 9; Official Biographies, Maj Gen Michael C. Gould and Paul F. Capasso, from Air Force Link, <http://www.af.mil/bios> accessed 1 May 06.

¹⁶ Intvw, Ashcroft with Lt Col Dale G. King, *et al.*, 3 Nov 05; Intvw, Ashcroft with Col Robert F. Simmons, 2 AF/DO, *et al.*, 4 Nov 05.

¹⁷ Article, 2nd Lt Lisa Kostellic, "Finding New Home, Family in Midst of Hurricane Losses," *Keesler News*, 10 Nov 05, p. 2.

¹⁸ Email, James E. Gildea, 81 TRW/HO, to Ashcroft, "FW: Katrina Information," 2 May 06; Article, Tom Philpott, "Military Katrina Victims Helped by Special Network," *Military.com*, 15 Sep 05 from http://www.military.com/NewContent/0,13190,Philpott_091505,00.html accessed 28 Mar 06; Article, "Hurricane Assistance Update," AFAS, 16 Dec 05 from <http://www.afas.org/popups/assistance.htm> accessed 28 Mar 06; Article, SSgt Lee Smith, "\$2.1 Million Paid to Keesler People Since Katrina Hit," *Keesler News*, 23 Feb 06, p. 1; Email, Col Karen H. Stocks, AETC/HC, to Ashcroft, "FW: Coordination on Chapter of Katrina Study," 10 Apr 06,

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¹⁹ Article, Susan Griggs, "Coins, Patches Raise Funds for Base Relief Efforts," *Keesler News*, 22 Dec 05, p. 12; Article, Susan Griggs, "Money Starts Flowing from Katrina Relief Fund," *Keesler News*, 3 Nov 05, p. 14; Article, "Lackland Assists Keesler," *Keesler News*, 17 Nov 05, p. 12; Email, MSgt Jeffrey Cartier, 81 MSS/DPF, to Ashcroft, "RE: Hurricane Katrina Relief Fund," 1 May 06; Article, SrA Heidi Davis, "Hurricane Strikes Keesler, Team Hurlburt Strikes Back," *Hurlburt Field Commando*, 16 Sep 05, p. 1.

²⁰ Email, TSgt Diane J. Hotaling, AETC/CCC, to AETC/CC All, "HOT! Hurricane Katrina Relief—Keesler AFB," 31 Aug 05; Email, TSgt Hotaling to Ashcroft, "RE: Katrina Relief," 4 May 06; Article, Susan Griggs, "McGuire Airmen Deliver Halloween Happiness Along with Recovery Supplies," *Keesler News*, 27 Oct 05, pp. 12-13; Article, Susan Griggs, "Hurricane-Ravaged Keesler Gets Toy Delivery," AFNS, 15 Dec 05 from <http://www.af.mil/news/story.asp?storyID=123013595> accessed 1 May 06; Article, AUSA, "Family Programs Update," 15 Oct 05 from <http://www.ausa.org/webpub/DeptFamilyPrograms.nsf/byid/KCAT-6H5QCK> accessed 21 Apr 06; Notes, 81 MSS commander's call, 21 Sep 05. Brig Gen Lord's email in Email, Robert V. Crawford, AETC/HO, to Ashcroft, "FW: AF Units

Aid to Keesler,” 15 Sep 05. In some cases, the email was printed in base newspapers, see Article, Brig Gen William Lord, “Keesler Commander Expresses Gratitude,” Lackland AFB *Talespinner*, 23 Sep 05, p. 4.

²¹ Email, Les Coalson, AETC/A7VE, to Ashcroft, “FW: Katrina-Keesler History,” 7 Apr 06, w/at: Katrina Study ch4 (draft); Intvw, Ashcroft with Col Robert Simmons, 2 AF/DO, *et al.*, 4 Nov 05; Email, Lt Col Christopher N. Miceli, 45 AS/CC, to Ashcroft, “RE: 45 Airlift Squadron and Katrina,” 4 Jan 06.

²² Email, Donna Jordan-Stokes, 12 CPTS/FMFS, to Dana Woods, *et al.*, “FW: Hurricane Katrina,” 1 Sep 05; Email Larry W. Bollman, 12 CPTS/FMFC, to Jack C. Wright, *et al.*, “FW: Hurricane Katrina—Civilian Pay Questions and Answers (Q&As),” 9 Sep 05, w/at: Paper, DFAS, “Civilian Pay Questions and Answers (Q&As)—Hurricane Katrina; Notice, “Hurricane Katrina Civilian Recall,” from <http://www.keesler.af.mil/Hurricane/Information/Civilianrecall.asp> accessed 3 May 06; Article, Susan Griggs, “Excused Absences for Katrina End March 11,” *Keesler News*, 3 Feb 06, p. 12.

²³ Disc, Ashcroft with Patty Hall, AETC/A1SEH, 11 May 06; Email, Patty Hall to Ashcroft, “R’s Bestest Birthday.pdf,” 11 May 06.

²⁴ Disc, Ashcroft with Patty Hall, AETC/A1SEH, 11 May 06; Email (FOUO), Patty Hall to Ashcroft, “Award Nominations,” 11 May 06, w/5 at: 1) AF IMT 1206, 81 TRW, “Nomination for Award – AF Services 2006 Civilian Manager of the Year,” 2) AF IMT 1206, 81 TRW, “Nomination for Award – AF Services 2006 Field Grade Officer of the Year,” 3) AF IMT 1206, 81 TRW, “Nomination for Award – AF Services 2006 Human Resource Office

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²⁵ Memo, AFSVA/SVX to ACC/A7N, *et al.*, “Use of Appropriated Funds for Nonappropriated Funds Costs Incurred in Hurricane Katrina, Hurricane Rita, and Hurricane Wilma Evacuations,” 28 Apr 06, w/at: Memo, OSD to Dist, “Use of Appropriated Funds for Nonappropriated Fund Costs Incurred in Hurricane Katrina, Hurricane Rita, and Hurricane Wilma Evacuations,” 23 Mar 06; Email, Maj Richard W. Fogg, 81 CPTS/CC, to Ashcroft, “Katrina Vouchers,” 10 May 06, w/at:

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²⁶ Intvw, Cully and Ashcroft with Brig Gen Lord, 2 Nov 05.

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²⁸ Intvw, Cully and Ashcroft with Brig Gen Lord, 2 Nov 05; Article, "Cell Phones," *Katrina Daily News*, 1 Sep 05, p. 2.

²⁹ *Katrina Daily News*, 1 and 2 Sep 05; Intvw, Col Robert F. Simmons, 2 AF/DO, *et al.*, with Ashcroft, 4 Nov 05. The Daily News was published electronically on Keesler AFB's public website, <http://www.keesler.af.mil/Hurricane/index.asp> last accessed 23 Mar 06.

³⁰ *Katrina Daily News Bites*, 22 Sep 05.

³¹ Issues of the *Daily News*, *Daily News Bites*, and *News Bites* were available on Keesler AFB's public website <http://www.keesler.af.mil/Hurricane/index.asp>.

³² Mentioned in both the Simmons, *et al.*, interview and the King, *et al.*, interviews. The BRAC commission website is <http://www.brac.gov> accessed 28 Feb 06.

³³ A "Kat" Tale, p. 6.

³⁴ Intvw, Ashcroft with Brig Gen James J. Dougherty, 81 MDG/CC, 3 Nov 05.

³⁵ *Ibid.*; Article, Susan Griggs, "Baby Arrives During C-Section by Flashlight," *Keesler News*, 22 Sep 05, p. 12; Article, Dewey Mitchell, "Team Lackland Lends a Hand to Victims of Katrina," *Lackland Talespinner*, 2 Sep 05, p. 1; Email, Maj Barbara A. Cain, AETC/SGX, to Ashcroft, "Coordination on Chapter of Katrina

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³⁷ Email, Capt Tracy Allen, AETC/SGX, to Ashcroft, "HQ AETC SG Katrina Lessons Learned," 21 Nov 05, w/atc: Memo (draft), AETC/SG to AFMOA/SGZO, "HQ AETC/SG Hurricane Katrina After Action Report," Nov 05; Intvw, Dwight Tuttle, 82 TRW/HO, and Ashcroft with Col Michael W. Miller, 82 MDG/CC, 9 Nov 05; Email, Maj Barbara A. Cain, AETC/SGX, to Ashcroft, "Coordination on Chapter of Katrina Study," 11 Apr 06, w/atc: Katrina Study ch4 (draft).

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³⁹ Article, TSgt Dan Neely, 81 TRW/PA, "Recovery Starts by Taking Care of Yourself," and notes in "Keesler Basics," both in *Katrina Daily News*, 4 Sept 05.

⁴⁰ See notes in Article, "Keesler Basics," *Katrina Daily News*, 11 Sep 05.

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⁴² *Katrina Daily News*, 8, 9, and 11 Sep 05; Article, SrA Sarah Stegman, "Base Facilities Reopen for Business," *Keesler News*, 29 Sep 05, p. 6; Article, Barbara Kirsch, "Recovering After the Storm," *The Exchange Post*, Apr 06 from <http://www.aafes.com/pa/apr06expo.pdf> accessed 21 Apr 06; Article, SrA Sarah Stegman, "Commissary Now Open, All Dining Halls Back on Schedule," *Keesler News*, 6 Oct 05, p. 12; Email, TSgt Logan E. Blackmon, 81 TRW/HO, to Ashcroft, "RE: Warrior Lounge," 21 Mar 06; Email, Les Coalson, AETC/A7VE, to Ashcroft, "FW: Katrina-Keesler History," 7 Apr 06, w/atch: Katrina Study ch4 (draft); Article, "Exchanges Destroyed by Katrina, Some Facilities Operational," 9 Sep 05 from <http://www.ausa.org/webpub/DeptFamilyPrograms.msf/byid/KCAT-6G3REP> accessed 21 Apr 06.

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⁴⁸ Article, TSgt Dan Neely, 81 TRW/PA, "Recovery Starts by Taking Care of Yourself," *Katrina Daily News*, 4 Sept 05.

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⁶² Intvw, Tuttle and Ashcroft with CMSgt Douglas Kesler, 82 TRW/CCC, 8 Nov 05.

⁶³ Intvw, Tuttle and Ashcroft with Maj Bruce Gooch, 82 MSS/CC, 9 Nov 05.

⁶⁴ Intvw, Tuttle and Ashcroft with CMSgt Douglas Kesler, 82 TRW/CCC, 8 Nov 05.

⁶⁵ The urgent need to make phone calls after arriving at Sheppard was mentioned in several interviews, including Tuttle and

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Chapter 5

Rebuilding Keesler AFB

The restoration of facilities at Keesler AFB was essential to resuming the full training mission and assuring the long-term viability of the base. This complicated task was the most enduring aspect of the hurricane recovery process, because of the extensive damage and the time required to appropriate military construction (MILCON) funds to replace housing and other irreparably damaged buildings. As discussed in Chapter 1, AETC's immediate efforts focused on base cleanup and the repair of training-related structures and mission-essential support functions.

Although the base suffered serious damage, many critical facilities, including the hurricane shelters and the newer dormitories in the triangle areas, had survived. Moreover, the 81 TRW had been able to restore daylight airfield operations within hours of the storm's passage. Finally, the 81 TRW had invested in the 1990s to bury power transmission lines, and so electricity had been restored to those buildings that had survived intact. Similarly, the storm had not compromised the base's drinking water system. Though Keesler had sustained significant damage, it had not been completely devastated, as much of the surrounding community had been.

After the initial response, the approach to full recovery comprised two phases. First, the 81st Civil Engineering Squadron (CES), with the assistance of the 823rd RED HORSE Squadron and 56 CES contingents, implemented interim solutions to restore base functions in order to allow Keesler's training mission to resume. Second, the base relied on contractors to perform the long-term, permanent restoration projects, which would last months and, in the case of rebuilding family housing, years. Contract support was also important in the interim recovery and thorough damage assessment in the weeks immediately after the storm. The vast scope of the project spurred innovation in contracting and MILCON, while on the ground, teams of civil engineers surveyed and repaired key facilities building by building.¹

The Perceived Threat of Base Closure

During the drawdown of the military at the end of the Cold War, base closure actions significantly reduced the military and the command infrastructure and resulted in the saving of billions of dollars annually, which Congress reallocated to other priorities and that the military used, primarily,

for weapons modernization. AETC closed Chanute AFB, Illinois, and Lowry AFB, Colorado, technical training bases, in 1993 and 1994, respectively; Williams AFB, Arizona, and Reese AFB, Texas, flying training bases, in 1993 and 1997; and Mather AFB, California, home of navigator training, in 1993. To meet the needs of the Air Force and DoD, the command relocated training programs at each of the closure bases, with Keesler, for example, gaining Chanute's weather training and Lowry's metrology program. In 2005, the Base Closure and Realignment Commission recommended, and Congress and the President approved, the realignment of the command's flying training program at Moody AFB, Georgia, to Columbus, Laughlin, Sheppard, and Randolph AFBs.²

As noted previously in this study, there had been concern at Keesler that with the nearly \$1 billion price tag to restore the base, the commission might add the crippled base to the closure list that it submitted to President Bush on 8 September 2005. After all, Keesler remained vulnerable to future hurricanes, and the training missions at the base could be relocated elsewhere if Congressional leaders were not committed to preserving the historic Mississippi Gulf Coast base. Elected officials and military leaders at the highest levels, however, repeatedly expressed their support for the base and pledged to rebuild the facility. Brian Drake, the deputy base civil engineer at Keesler, explained the wing and command leadership wanted "to make

a statement to the community that we were not going to close the base," by resuming training courses as soon as possible. Fortunately, the training facilities were the newest, best-constructed buildings on base, and they had survived with minor damage. The first priority was therefore to restore the facilities that were essential to resuming training. Next in line would be to find temporary space to house support facilities such as the BX and commissary.³



Brig Gen William Lord, 81st Training Wing commander, and Maj Gen Loyd S. "Chip" Utterback, Second Air Force commander, greet President George W. Bush and U.S. Senator Trent Lott at Keesler AFB, Mississippi.

Interim Recovery

While planning for the long-term MILCON projects was underway (see below), the 81 TRW worked assiduously to repair less-damaged facilities and to implement interim solutions for facilities that would have to be replaced. Throughout the process, experts in health and safety; structural, electrical, and HVAC systems; and en-

vironmental restoration were involved in all aspects of the work.

Hurricane Katrina had not only damaged the base infrastructure, but also affected Keesler personnel individually. While many key personnel had weathered the storm on base, a significant portion of the work force had been ordered to evacuate the area and was unable to return to work because they had lost their homes. The arrival of relief personnel from other AETC bases, as well as the 97 AEG, assisted with Keesler's recovery while these storm victims attended to their own needs.

In the immediate aftermath of the storm, the Keesler leadership began to assess the status of the base. The storm had damaged buildings on base in two ways. Winds had torn off roofs, and flying debris had damaged windows, allowing rain to blow into the buildings. The newer construction on base had been built to withstand Category 5 winds, and their peaked roofs weathered the storm better than many of the older, flat roofs, many of which blew off during the storm. The roof of the Levitow Training Support Center, which contained the housing office, civilian personnel and support group headquarters, and family support center, had blown off during the storm, and rain had soaked the carpeting, drywall, and office furniture. Many other buildings had also suffered wind and water damage from leaking roofs.⁴

In addition to strong winds, a storm surge had inundated about half

of the base. Waves were breaking in the middle of the runway, half of which was submerged at the height of the storm. The storm surge had inundated everything on base that stood lower than 18 feet above sea level (see Appendix B). The Keesler Medical Center, at 720,000 square feet (plus seven outlying buildings) the second largest Air Force hospital, was heavily damaged, and the basement of the main building had flooded. The damage included the loss of all electrical switches and distribution panels, as well as all phone switches. A large amount of sensitive medical equipment was damaged, including X-ray machines. A third of the hospital's HVAC chillers were damaged beyond repair, and mold and mildew covered all floors. The Base Exchange (BX), a 135,000 square foot facility containing a pharmacy, offices, food court, and military clothing sales in addition to the usual merchandise, was heavily damaged during the storm. Floodwaters stood 5 feet deep inside the BX during the peak of the storm surge and wrecked the contents of the building. Of the 1,800 family housing units, 800 were destroyed, many by flooding, and hundreds more had suffered significant damage from wind or fallen trees.

Long-range planning for repairing or relocating these facilities was necessary, but initially the 81 TRW needed to clear downed trees and debris blocking the base roads, assess the damage building-by-building, and begin to implement an interim solution to restore each facility while ensuring the health and safety of workers and returning



Fire department officials examine the charred rubble of the home belonging to Col Bruce Bush, 81st Mission Support Group commander, 1 September 2005. The house exploded during Hurricane Katrina, which flattened buildings and flooded areas from Florida to Louisiana, leaving thousands homeless (USAF photo by TSgt Jennifer C. Wallis).

instructors, students, support personnel, and their families.⁵

PRIME BEEF Disaster Response

To assist with the recovery, the 56 CES at Luke AFB contacted HQ AETC and offered a Prime Base Engineer Emergency Force (PRIME BEEF) team to Keesler. At around noon on Friday, 2 September, Luke got the go-ahead, and 36 frenetic hours later, 54 civil engineering troops under the command of 1st Lt Kelly Jaramillo boarded a 314 AW C-130. As with many others deploying to the region, the unit had little time to prepare: they were tasked at noon on Friday and left on Sunday morning. Unsure of the conditions

they would face, the group prepared for the worst. Other organizations on Luke AFB pitched in to help the PRIME BEEF team. Dentists from the 56th Medical Group even conducted last-minute exams in the deployment processing line. The 56 CES personnel were accustomed to operational missions and deployments, however, and palletized their equipment, which primarily consisted of eight or so consolidated tool kits (CTKs) with a few extra chain saws for good measure, in time to make the assigned departure.⁶

In the case of base restoration, the administrative confusion typical of the short-notice deployment of outside

personnel to Keesler was serendipitous. Much of the effort was done on an *ad hoc* basis, and members from different bases deployed on different types of orders. In one case, Luke civil engineers met SSgt William Rupert in a parking lot outside of billeting. He was not originally supposed to end up at Keesler, but somehow did. Fortunately, his contracting expertise proved instrumental in arranging for the removal of debris from the base. About 15,000 tons of refuse were collected at a central location on base, and a contractor removed the material to a municipal landfill.⁷

Though Keesler had never lost potable water, and electrical power had been restored on the base the day before the PRIME BEEF contingent arrived, the 81 CES, with the assistance of the Luke engineers and the 823 RHS, still had plenty of work to do. The base undertook a thorough damage assessment. Engineers had to inspect and repair utilities in each building to make certain, for example, that turning the power back on would not trigger a catastrophic explosion of leaking natural gas, like one that had instantaneously reduced the 81 MSG commander's house to a concrete slab. Luke engineers also repaired roof damage and fixed 75 rooftop HVAC units. They repaired windows, roofs, stripped molding drywall out of flooded buildings, and the power generation team operated portable generators. Finally, the team assessed the damage to each building on Keesler and drew up a bill of materials for necessary repairs.⁸

A good example of the interim recovery effort was the creation of a temporary commissary in the community activity center. When the 81 MSG commander, Colonel Bush, began to look for a way to contract out the commissary conversion, MSgt Randy Kinser, the structures shop lead from the 56 CES team, suggested that his unit had the expertise and equipment to tackle the job. They gutted the building, installed utilities, and poured a new concrete floor in only three days. The Defense Commissary Agency (DeCA) stacked the shelves the next day, and by the fifth day, hundreds of customers had the opportunity to purchase food and supplies.⁹

The 56 CES noted several aspects of its experience that could have been improved. First, all members of their contingent were keyed up and ready to work when they arrived at Keesler on Sunday night. Unfortunately, Monday, 5 September was a down day for Keesler, a much-needed pause for base personnel in a stressful period, so many of the 56 CES personnel had a slow day while their leaders assessed the damage. If an advanced team consisting of the commander and shop leads had deployed before the group, the bulk of the unit could have worked more efficiently in the first few days.¹⁰

Additionally, a base-wide rather than zonal maintenance organization at Keesler would have facilitated the recovery. The 81 CES had divided Keesler into maintenance zones, which distributed squadron members from each specialty, or "shop" in the civil



SrA Adrian Silerio (left) and 2nd Lt Scott Thomas dispose of a couch from a home in Biloxi, Mississippi, that was damaged by Hurricane Katrina. The Airmen deployed to nearby Keesler AFB from the 56th Civil Engineer Squadron at Luke AFB, Arizona, and volunteered in the local community on their off-duty time (USAF photo by 1st Lt Brady Smith).

engineers' parlance, across the base. Many of the 81 CES members were unable to report back to work at first, so some zones lacked key specialties or a person who knew where everything was. The 56 CES was organized by shops, which did any necessary repair across the base, an approach more suited, in their estimation, to a crisis response.¹¹

Finally, the decision to return students to Keesler caused some problems

with the base recovery. The civil engineer had generated prioritized plans for repairing base facilities. With the return of students, classrooms had to be ready, but many lacked lighting, electrical power, or had other damage. The base recovery effort changed from an orderly effort to a more typical day-to-day operation of responding to *ad hoc* requests for repair. The PRIME BEEF unit believed their mission had changed from disaster recovery to the day-to-day operation of a base, only one with an abnormal amount of urgent repairs. The resumption of training meant that the repair and restoration schedule had to be set aside as repair orders from instructors who needed lighting restored in their classrooms and the like bombarded the engineers. The phones rang off the hook, and the *ad hoc* work was less efficient.¹²

Contracting and Contract Oversight

Environmental concerns were integral to the cleanup and repair of base facilities. John Chiaramonte, Jr., from the AETC directorate of civil engineering, augmented the Keesler environmental flight for six weeks beginning on 10 September. The environmental flight provided support in four general areas. Compliance required the base to monitor the environmental impact of ongoing operations, which involved measuring air emissions (such as those from portable power generators operated during the recovery effort) and monitoring the quality of storm runoff, wastewater,



Winds gusting to 140 mph heavily damaged the older roofs on Keesler AFB. Newer construction fared better, because the more recent buildings had been designed to withstand Category 5 winds.

and drinking water. Second, environmental restoration involved the cleanup of past contamination of soil or groundwater that had occurred prior to 1984, most of which dated to the 1940s, 50s, and 60s.¹³ Third, the environmental flight was responsible for preserving Keesler's natural and cultural resources under the conditions of the National Environmental Protection Act (NEPA), such as trees and buildings listed on the national historic registry. The final area of concern was pollution prevention, which involved identifying hazardous materials, recycling, and procedures to reduce usage of common chemicals. In contrast to the Bio-Environmental Engineer, analogous to the function of the Occupational Health and Safety Administration (OSHA) on a base, the environmental flight acted more like the Environmental Protection Agency (EPA).¹⁴

Maj Tim Stanek, the bioenvironmental engineer (BEE) at the 56th Aeromedical-Dental Squadron, deployed to Keesler to assist with the cleanup. The role of the BEE was to protect the health of people from physical hazards in the environment, such as potentially harmful biological or chemical substances including lead or asbestos, or other physical threats such as radiation or excessive noise. The former BEE at Keesler, Major Stanek had PCS moved to Luke AFB only a few weeks before the storm hit. He was therefore familiar with the facilities and the people at Keesler, and he had specialized training in lead and asbestos abatement. By contrast, his replacement had only just finished BEE training. Even after completing an EPA-certified course in asbestos removal, Major Stanek explained, "It takes a long, long time to actually get a lot of experience in asbestos to know the laws and to know how to address

Figure 5.1
IDIQ Contracts for Keesler Cleanup

| Contract | Date | Agent | Cost |
|-------------------------------------------------------|------------------------|-----------------------------|-------------|
| Emergency Asbestos Removal | Completed 15 Dec 05 | AETC | \$602,000 |
| Replace/Repair Damaged Balers | Purchased | 81 TRW (local form 9) | \$80,000 |
| Tree Damage Assessment | Completed 21 Nov 05 | AFCEE | \$87,000 |
| Emergency Response and Spill Cleanup at Base Exchange | Completed 21 Oct 05 | AETC | \$1,700,000 |
| Air Emission Equipment Assessment and Data Support | Awarded 27 Sep 05 | AETC | \$44,000 |
| Disaster-related Waste Disposal | Awarded 26 Sep 05 | 81 TRW (local MORD to DRMS) | \$50,000 |
| UST Monitoring Well Redevelopment and Tightness Test | Awarded 29 Sep 05 | AETC | \$78,000 |

Source: Rpt, 81 CES, "Statement of Objectives for Asbestos Removal, Keesler AFB, MS," *ca.* 15 Sep 05.

situations within the law." As a result, the staff at Keesler relied on his advice. "I talked to them almost every single day until I arrived there," Major Stanek recalled. "They were calling me about lead, asbestos hazards, and a bunch of other different hazards, because I was their experience."¹⁵

The command's Indefinite Delivery/Indefinite Quantity (IDIQ) contracts allowed the command to allocate money to start projects quickly. The command had IDIQ contracts for architectural and engineering services

with SAIC, Weston Solutions, and CH2 M Hill. A multiple-award contracting vehicle facilitated bringing contracted help to Keesler quickly. The command could determine the contractor most qualified for a particular task, based on quality of previous work, technical and managerial capabilities, availability of labor and resources, proximity to work site, and cost, and request a proposal. HQ AETC contracting officers administered the contracts with the assistance of the civil engineer and the individual contracting officer's representatives.¹⁶ These contracts had

sufficient ceiling, so funds could be spent through these contractual vehicles quickly. The command earmarked some of the \$4 million in an environmental restoration account (ERA) and set aside \$2 million in O&M funds for environmental assessment and cleanup at Keesler. The actual contracts spent \$2.6 million of these FY05 funds. During the initial cleanup, the Civil Engineer spent only about \$500,000 of this money for cleanup and repair of restoration sites.

Keesler used a second contracting vehicle to facilitate cleaning up the base. The Air Force Contracted Acquisition Program (AFCAP) allowed Keesler to bring contractors on base to begin cleanup quickly. The speed, however, led to at least one problem. Subcontractors had not been properly

vetted, and Keesler shortly discovered some of the workers were illegally in the country and others were looting and breaking other laws. The Office of Special Investigations (OSI) escorted offenders off the base.¹⁷

The environmental flight assured that hazardous materials were removed from tons of debris from damaged buildings. The command added money to a hazardous waste contract with American Environmental Services to hire additional people to remove and sort HAZMAT, such as fuel cans, propane cylinders, and gasoline motors, out of debris piles and other sites on base. Funds were also added to existing waste disposal contracts. For example, the self-help store (called the “Key-store” at Keesler) for base housing residents was flooded, damaging pallets of



Several feet of water from Hurricane Katrina’s storm surge inundated the commissary and base exchange, wrecking the contents and necessitating a careful cleanup project.



The lawn and garden section of the Keesler Base Exchange was an area of particular concern. Fertilizers, swimming pool chemicals, and lawn equipment had to be disposed of properly. Civil engineers placed booms around the area immediately to contain any potential spills from broken containers.

fertilizer and paint. The environmental flight also devised a policy for propane cylinders, which were collected and stored for disposal. Contractors also sorted hazardous material at the BX.¹⁸

The cleanup of the BX was a particular challenge. The first step was to air out the building; food, fish, and the rest of the contents had festered in the building for days. When MSgt Randy Kinser of the 56 CES attempted to enter the building to repair a water line, he got only a few feet inside the door before retreating. SSgt Wiggers recalled smelling the fetid mess from the

parking lot, and his commander wryly noted that the foul smell was “significant.” The team also recalled working on a house filled with pools of septic water that reeked like a dead animal. “Or a couple,” another engineer observed sardonically.¹⁹ Working with the engineers from Luke on the project, the 823 RHS used heavy equipment to push the contents of the commissary, rotting food and shelving together, out of that flood-damaged facility. “The stench of rotting food, mixed with other spilled commissary products [was] breathtaking,” CMSgt Mark Lewis, deputy of the deployed

group, recalled. Keesler lacked the heavy equipment and personnel to do the job.²⁰

Keesler awarded Weston Solutions, a contract to remove and examine the contents of the BX and to identify and properly dispose of any potentially contaminated items or waste to prevent the release of any hazardous material. The Weston Solutions team arrived on 23 September, and subcontractors the following day. Charlie Biondo, 81 CES Toxic Substances Manager,²¹ and Mr. Chiaramonte met with the contractors on 25 September “to discuss the schedule, logistics of site security, vendor and money handling issues, and disposition of military uniforms and

insignia.” Two small skid loaders removed the merchandise, eventually filling 178 30-cubic-yard roll-off containers. Next, personnel sorted through the contents to identify potentially hazardous materials, which they prepared for shipment to appropriate waste facilities. Not a lot of the HAZMAT on the BX shelves leaked, because it was in sealed plastic containers for retail sale. Still, there were many concerns. The contractor used photo ionization detectors to search for hydrogen sulfides and other hazardous materials, and there were bacteria from raw sewage in the floodwaters. Approximately 15 tons of uniforms and insignia were hauled off to be shredded and incinerated in Tennessee, but the base was able to recycle 76,000 pounds



A worker uses a forklift to load flood-damaged merchandise from the Base Exchange at Keesler AFB into a roll-off for disposal at a Subtitle C landfill.

of scrap metal as well as lead-acid batteries, fire extinguishers, compressed carbon dioxide, and refrigerants. Finally, the floor was cleaned and swept, and the wastewater generated was evaluated for contamination. The team completed their work on 28 October after Mr. Biondo completed a walk-through inspection with the Weston team leader.²²



Contractors sorted hazardous material from the base exchange into makeshift containers prior to packing them for final disposal in a HAZMAT facility.

The BEE was also important in the aftermath of the storm as team Keesler worked to get their base back on its feet. Self-help projects, while speeding the recovery, sometimes created hazards. For instance, in some of the buildings that had suffered roof damage, rainwater had saturated ceiling

tiles and carpeting in some spots. Major Stanek explained the problem.

Some of the buildings that had roof leaks, there were some ceiling tile that was asbestos that had to be cleaned up, that couldn't be done by the building occupants. Because a lot of times, the building occupants, if they want some ceiling tile removed and the base is dragging their feet or is just too busy to remove them, pretty soon these people are going to put in a [Form] 332 to do self-help projects to remove it themselves. So that's one of the things we try to prevent: people doing self-help projects where they could end up disturbing some type of asbestos material or lead-based paint.

Naturally, people were tired of seeing storm damage in their office and wanted to fix the problems themselves. In some cases, Major Stanek had to tell them to wait for the base asbestos team to remove ceiling tiles in order to ensure their safety and that of the future building occupants. In other cases, though, the BEE team was able to show personnel how to do a job safely and quickly. For instance, though the health and wellness center had to replace some carpeting because of mold that formed after floodwaters receded, the staff was able to restore some of the furniture it had originally thought



Over two tons of lead-acid batteries were accumulated for reclamation by Keesler AFB.

necessary to replace simply by wiping off the mold that had formed on it.²³

The hospital was another serious challenge for cleanup crews, in part because of concerns about asbestos (see below) and mold. The PRIME BEEF power generation team maintained 14 generators around-the-clock, which powered heaters used to dry out the flooded hospital to prevent mold. Major Stanek also inspected the hospital for hazards and noticed a storage closet containing hazardous chemicals. A contractor was about to start working in the area when Stanek opened the closet door and discovered it was filled with an unknown, liquid substance with an overpowering odor. “We shut the door and told the asbestos contractor that they could not enter that area until that unknown hazard situation

was cleaned up,” he explained. Also at the hospital, Major Stanek noticed that the cleanup crews had damaged the lead shielding around the x-ray rooms while removing wet drywall, and instructed the civil engineers to make certain to replace the shielding before permitting the facility to be reoccupied.²⁴

The storm had devastated base housing. As discussed in Chapter 3, members of the 97 AEG served as quality control inspectors for contractors who installed tarps over the rooftops of damaged houses under the Army Corps of Engineers “blue roof” program, while civil engineers inspected each dwelling and carefully reconnected it, where possible, to the electrical and natural gas distribution grid. (See below for more information on the repair

and reoccupation of family housing.) Finally, Major Stanek examined household goods that the government had contracted to store at an off-base facility. The storage units had flooded under the storm surge.



Personnel don personal protective gear while cleaning up hazardous material on Keesler AFB, Mississippi, in the wake of Hurricane Katrina.

A lot of the household goods were either inbound—and outbound—and of course legal [the Judge Advocate] got involved, because they had to pay the claims on everybody's household goods that were stored off base. There was raw sewage that got into some of that, because there was a sewage plant right

near—probably within a quarter-mile of—the warehouse. So as the water rose, the raw sewage backed up, and the sewage treatment plant couldn't handle the sewage anymore. It got into the warehouse, and 30 feet of water, too, just flooded the place and destroyed everybody's household goods. And then [when] we got there, they opened up the crates, and it was just molded and muddy.

All the items had to be destroyed.²⁵

Environmental Restoration

Most of Keesler's environmental restoration projects involved landfills that had been in operation in the 1960s and 1970s, and 65 groundwater-monitoring wells were used to monitor groundwater quality at 11 such sites on Keesler. The US Environmental Protection Agency and Mississippi Department of Environmental Quality required Keesler to maintain the wells. Approximately 18 feet of water stood over some of the wells at the height of the storm surge, and many well caps were submerged for days as the waters receded. The floodwaters deposited silt inside protective casings, and the base was concerned that saline water had contaminated the subsurface groundwater through barometric-pressure-equalization holes about one-eighth of an inch in diameter, which could have entered the aquifer or caused erroneous reports of contamination of the

monitored sites. Normally these holes were located at elevations above likely flooding, but the extreme flooding associated with Hurricane Katrina overwhelmed them. The base let a contract to CH2M HILL to test the water in the monitored sites and to “redevelop” the wells by removing sediment from the well casings. In addition, the contractor tested the integrity of underground tanks and lines.²⁶

CH2M HILL personnel, with the assistance of Lisa Noble of the 81 CES, surveyed the wells between 13 and 16 September. They confirmed the initial assessment of the base civil engineer on the damage to monitoring wells. In addition, CH2M HILL assessed the salt-marsh wetlands bordering three landfills to have emerged from the storm relatively undisturbed, with some sedimentation “not considered to be detrimental to the health of the system,” and minor damage to outfalls (i.e., storm water drains). Sediment deposited on the landfills had killed the turf grass on the portion over which the base had built a golf course. The contractor recommended repairing the outfalls and removing the silt to prevent future damage to the vegetation protecting the geosynthetic clay liner of the landfills. Under a separate contract awarded 28 September, CH2M HILL performed the recommended work, some of which was still ongoing in May 2006.²⁷

Regulatory Compliance

While there was some damage to the monitoring wells on the restoration sites, Keesler’s civil engineers had done a good job in preventing environmental problems during the storm. The base’s first responders placed booms around storm drains to prevent the potential contamination of water running into storm drains. After the storm, Jim Morrison, who was responsible for Keesler’s underground storage tanks and water issues, checked and re-boomed the outfalls (i.e., the point where storm water left the base). After the storm, Morrison also tested all the underground tanks and lines on Keesler for tightness and integrity.²⁸

In addition to the concerns about water quality, the Mississippi Department of Environmental Quality required Keesler AFB to monitor the status of the base’s equipment that emitted air pollution, such as power generators, a paint booth, and boilers. Between 2 and 7 October, the base contracted a survey of air emissions equipment. The inspectors found that the storm had damaged 22 pieces of equipment, of which six were scheduled for replacement; one (the jet engine test cell) was to be removed from operation, and the rest were to be repaired. Ongoing repairs at the hospital, BX, and commissary potentially required the use of generators past the deadline established by the state in Emergency Order No. 5062, and the emissions generated by the continued operation of the portion of these generators owned by Keesler AFB would



Hurricane Katrina toppled hundreds of trees on Keesler AFB and severely damaged others. During the clean-up, the 81st Civil Engineering Squadron evaluated the health of the surviving trees with the help of Trees America, and identified the trees that needed to be pruned or removed for safety reasons.

have to be monitored. Rented units were not subject to the same requirements.²⁹

Finally, Keesler had to comply with laws regulating the handling of asbestos-containing materials. Many buildings on Keesler that suffered heavy water damage had carpeting and floor tile that contained asbestos, which required special precautions during removal. Typically, the problem was wet mastic, which created a potential release of asbestos when it dried and cracked. The largest projects were the Sablich Center, as well as Buildings

6901, 6902, and 6903.³⁰ The Mississippi Department of Environmental Quality issued an emergency order on 13 September that waived the requirement for prior notification for demolition or cleanup of asbestos-containing material resulting from the hurricane. The state still required notification within five business days, and rules governing the safe disposal of asbestos-containing material remained unchanged.³¹

Asbestos removal required the attention of both the base civil engineer, who assured that the operation would not pollute the environment, and the

bio-environmental engineer, who ensured that the methods used would protect the safety of the workers. Mr. Biondo was the asbestos point of contact on Keesler.³² Moreover, the asbestos-containing materials were potentially a health hazard if removed incorrectly. “Using mastic remover is fine, but using other types of scrapers, mechanical chippers,” Major Stanek explained, “can cause asbestos release into the air.” The BEE therefore had an oversight function.

The actual removal is supervised by the CED, the civil engineers. But we also had to look at the health aspect to make sure—because we are the OSHA experts—we need to make sure the contractors were following OSHA regulations, so that when people reoccupy the hospital, there’s no exposure to them....The main thing we have to look for is to make sure it is being removed properly. Because we’ve seen some folks not put up the proper containment, some people moving things that were up—hospital folks walking in and out of these containments. There were a lot of issues that we had to oversee. I’ve dealt with a lot of contractors, and sometimes they need baby-sitting to ensure the government is getting what they pay the contractors for—to make sure they don’t take shortcuts, to make sure the Air Force em-

*ployees who are reoccupying these buildings are safe from environmental hazards.*³³

Figure 5.2
Asbestos Removal at Keesler AFB

| Building | Area (sq ft) | Material |
|----------------------------|--------------|------------|
| Sablich Center | 122,000 | floor tile |
| | 85,000 | carpet |
| McClellan Hall (Bldg 2818) | 6,500 | paneling |
| | 6,500 | sheetrock |
| Garrard Hall | 25,000 | floor tile |
| | 25,000 | carpet |
| Bldg 6901 | 93,000 | floor tile |
| | 2,000 | carpet |
| Bldg 6902 | 85,000 | floor tile |
| | 41,000 | carpet |
| Bldg 6903 | 85,000 | floor tile |
| | 2,500 | carpet |

Source: Rpt, 81 CES, “Statement of Objectives for Asbestos Removal, Keesler AFB, MS,” ca. 15 Sep 05

Another asbestos issue arose in family housing. Some of the ceiling insulation contained asbestos, and the drywall joint tape also contained asbestos. Because this material was not friable, however, it posed no threat to residents, and Major Stanek worked to reassure families that they had not been exposed to asbestos before the storm.³⁴

Natural Resources

The environmental flight was also concerned with Keesler’s natural re-



1st Lt Wendy Hendley, 403rd Wing facility manager, inspects damage for Air Force Reserve Command civil engineers during AFRC's assessment team visit to Keesler AFB, Mississippi, on 20 September 2005. Many of the command's office buildings, maintenance shops and hangars were severely damaged by Hurricane Katrina (USAF photo by Lt Col Bob Thompson).

sources. The hurricane also damaged trees, wetlands, and landscaping on Keesler. Under contract with the 81 CES, Trees America assessed the health of the base's approximately 11,500 trees and 500 potential tree planting locations. Though over half of the trees had survived the storm in good condition, the rest, including half of the base's largest trees, had suffered damage to various degrees, such as broken limbs or simply being uprooted. The base had already removed approximately 1,200-1,500 trees before the survey, and about 200 more needed to be felled or pruned to protect the safety of base residents. The report also commented on the overall health and

sustainability of the urban forest on Keesler, noting that two genera of trees (*Quercus*, or oak, and *Pinus*, or pine) accounted for nearly 60 percent of the tree population, while the popular crepe myrtle (*Lagerstoemia*) comprised another 17 percent. Fully a quarter of the overall tree population was one species, the majestic Live Oak (*Quercus virginiana*). While recognizing the desirability of these species, the foresters recommended that the base diversify its urban forest with other species well-suited to the area, in order to enhance the sustainability of its trees.³⁵

There was a second spring of sorts at the end of September. Plants started

growing and replacing foliage that had turned brown after the storm. The trees started to re-bud, and the landscape changed from post-storm brown to pre-storm green.³⁶

Long-term Recovery: Military Construction

Proper damage assessments take time, and it was impossible to prepare an adequate long-range recovery plan within days of a devastating storm. “You cannot assess 1,800 housing units in a couple of days and get an accurate answer,” Wes Toche, who headed up the long-term recovery office at Keesler, explained. In addition, a major storm creates widespread damage, fundamentally changing the regional availability of contractors, construction materials, and labor. It therefore took time to understand the long-term effects of the storm on the cost of restoration contracts. While initial repairs were being made from the preliminary survey, therefore, the damage assessments evolved and gradually became accurate enough to support a long-term reconstruction plan.³⁷

The long-term recovery of Keesler was mainly an issue of military construction (MILCON) funding to repair the medical center, BX, and commissary, and to rebuild the military family housing units destroyed by the storm. In addition to the nearly \$100 million Keesler received for repairs in the first weeks after Katrina,³⁸ nearly \$400 million in MILCON funding had been

approved by 31 March 2006. This included:

| | |
|--------------------------------------------------|-----------------|
| AETC MILCON (training and support facilities) | \$39.6 million |
| Military Family Housing | \$313.9 million |
| Medical (base hospital) | \$45.0 million |
| AAFES (temporary BX) | \$3.8 million |

The \$39.6 million for AETC MILCON included three major projects—\$11.2 million for the Training Aid shop, \$13.1 million for a consolidated club, and \$10.2 million for a recreation center. The remaining \$6.1 million covered the construction of a new post office, a refueler maintenance shop, and a munitions inspection facility. The command also received \$9.2 million for planning and design costs, and HQ civil engineers expected to complete the design phase of all of these projects by 30 June 2006. In addition, Public Law 109-148, passed on 30 December 2005, authorized DeCA to spend \$44.3 million from its trust fund for a new commissary. MILCON projects that had not been funded included \$40 million for a permanent base exchange, \$28.6 million for a consolidated aircraft maintenance facility in hangar 5, \$19.6 million for a fire and crash rescue station, \$5.5 million for a new library, and \$2.1 million for a new golf course club house. The command also expected to receive an additional \$14.4 million for planning and design. HQ AETC civil engineers hoped to

have all of the MILCON projects bid and under contract.³⁹

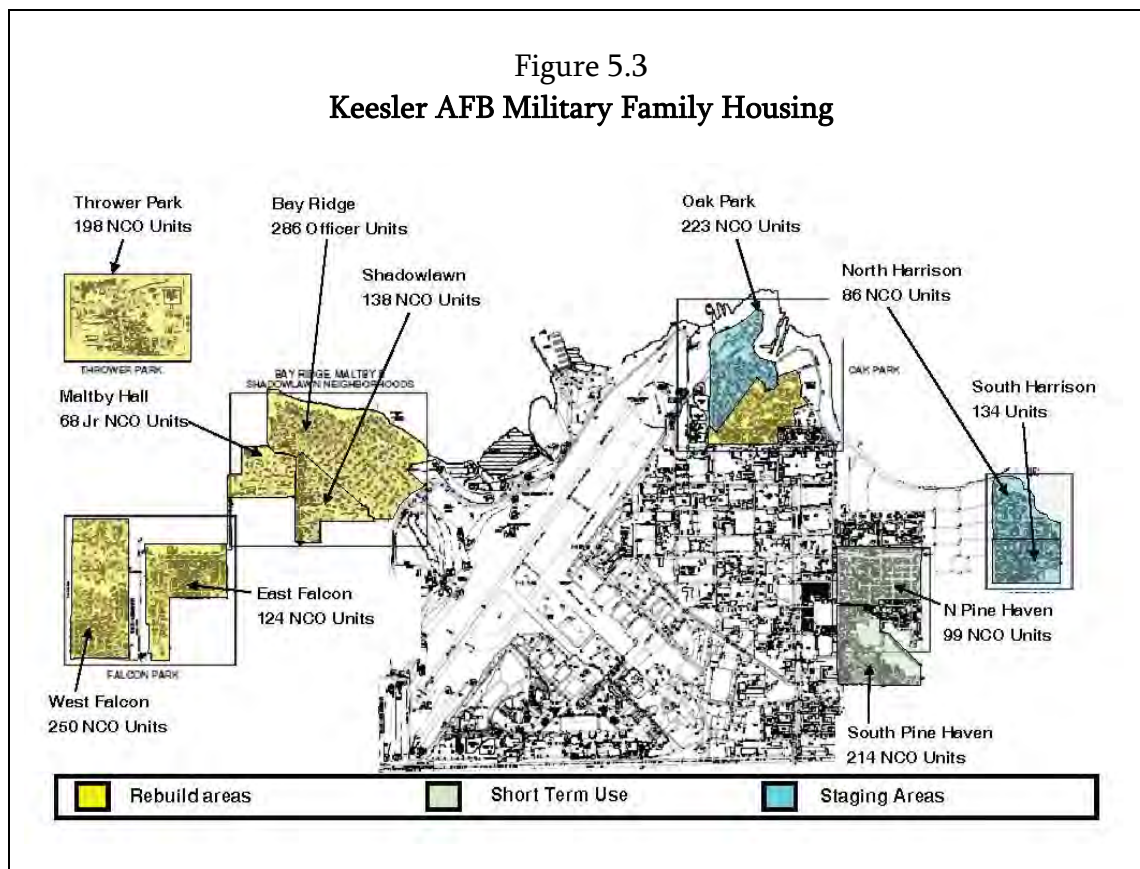
As described previously, the Keesler medical complex suffered severe damage, and the medical group expected to offer a reduced level of service for at least a year after the storm. In the meantime, the Base Closure and Realignment Commission decided to downsize the medical mission at Keesler. Line item 173 in the commission final report recommended that “inpatient services” at nine medical facilities throughout the DoD be converted to “clinics.” Under the plan, the Keesler hospital would lose 181 military authorizations, 31 civilian positions, and 190 contractor equivalents in the group, and be reduced in scope from a “medical center” to a “community hospital.” The commission action actually represented somewhat of a reprieve for Keesler, as the original Secretary of Defense recommendation was to disestablish the inpatient mission and convert the center to a clinic with an ambulatory surgery center. The commissioners criticized DoD’s proposal as creating “a risk of insufficient health care services available to Keesler beneficiaries.”⁴⁰

While the 720,000-square foot hospital building required \$45 million worth of MILCON money to restore the facility to its pre-Katrina operational status, another \$30 million would be needed to replace equipment. The initial restoration of basic medical services was spelled out in Chapter 4; by March 2006 the command had developed an eight-segment recovery

schedule for the hospital. Restoration of the basement involved four of the steps—the restoration of the pharmacy and repair of the escalator by April 2006; the return of family practice, women’s health, and pediatrics clinics by May 2006; return of flight medicine services, public health, and the central sterilization services by June 2006; and then all remaining areas by August 2006. The main concern for the basement was figuring out how to protect the electrical distribution system. When flooding occurred, even though emergency generators were available to power hospital systems, the distribution system had been lost. “We are just going to make the basement a submarine,” was how General Dougherty, the medical group commander, described the rebuilding. Reinforced, water tight doors would seal out any flooding, and the plan called for all areas of the system to be upgraded. Final occupancy and full use of the basement would follow in the September-October timeframe. The other four segments of the hospital work involved the installation of a new fire protection system and surgery suites renovation on the second floor; fire protection and obstetric clinic renovation on the third floor; and fire protection for the fourth and fifth floors. Planners expected full occupancy and use of the second through fifth floors of the hospital building by October 2006.⁴¹

Military family housing (MFH) was the most expensive and most complicated of the base restoration projects, with 11 different family housing areas scattered around the base,

Figure 5.3
Keesler AFB Military Family Housing



encompassing 1,820 family units. The base received \$70.2 million in O&M funding to repair base housing and to demolish units that were beyond repair. Phase I of the project included the repair of 425 units, at a cost of \$26.4 million, and the demolition of 232 units in Oak Park, South Pinehaven, and South Harrison Court that had been planned and funded (\$3.0 million) before the storm as part of a housing privatization program (see below). Phase II of the O&M program included the repair of 440 units, at a cost of \$28.4 million and the demolition of 723 units that were beyond reuse, at a cost of \$12.7 million. Also included in the \$70.2 million was \$5.7 million for infrastructure repairs dur-

ing both phases. By the first of March 2006, nearly 500 families lived in base housing, and officials hoped to have all 865 units repaired and occupied by 1 August.⁴²

In addition to the O&M funds, the command received \$35.9 million in FY05 MILCON money and \$278.0 million in FY06 monies to build 1,067 new housing units and demolish the 865 units scheduled for repair with O&M funds. The figure of 1,067 homes was a significant reduction from the 1,820 existing units, and was based on current needs in an Air Force significantly smaller than in previous years. Nevertheless, the Keesler project represented the largest housing MILCON



Military Family Housing units along the Back Bay of Biloxi were particularly hard hit by Hurricane Katrina's storm surge, which raised water levels nearly 20 feet, flooding approximately half of Keesler AFB, Mississippi. The sites with the lowest elevations above sea level were abandoned as Keesler planned to rebuild its housing units (photo by Capt Brady Smith).

program in Air Force history, according to the command's project manager, Michael Wilson. Instead of detailed specifications covering every aspect of construction, as had been the standard practice, the Keesler MILCON would be based on a much simplified request for proposal (RFP), basically allowing home builders to use the same "off-the-shelf" floor plans and general design standards that they used in building neighborhoods across the country. This approach greatly accelerated the acquisition process. As first conceptualized in February 2006, the command expected project award in

April, with an estimated completion date of May 2008. The less than 100 days from the 35 percent design meeting in January to contract award in April was revolutionary, according to Mr. Wilson.⁴³

The 81 CES had predicted the flooding expected from different categories of hurricanes, and, as Mr. Drake explained, the storm surge maps "pretty much predicted where the water would go," in a Katrina-sized hurricane. The maps would later influence decisions on where to rebuild facilities, like family housing and the

BX, to locations on base less vulnerable to flooding.⁴⁴

Because of the flood pattern from Katrina, and because of the requirement for fewer units, the base reduced its housing footprint from 390 acres to 270 acres. In the long run, the heavily damaged Harrison Court, North Pinehaven, and South Pinehaven housing areas, and a portion of Oak Park, would be converted into recreational areas or restored to natural habitat. This decision would allow base houses to have a finished floor elevation 18 feet above sea level (ASL), 2 feet higher than FEMA's recommended 16 feet. The RFP required all housing units to be two stories tall, except for the 5 percent of homes built to Americans with Disability Act specifications by law, providing families in a flooding situation increased protection. AETC also required the new construction to be able to withstand winds up to 140 mph, and some of the housing sites on Back Bay closest to the water would not be reused.⁴⁵

As construction of the permanent housing progressed, North and South Pinehaven would be used as temporary housing areas, allowing the base to house a significant number of families until the permanent construction was completed. The uninhabited section of Oak Park and Harrison Court would be used as staging areas for construction supplies. Realistically, the command expected the award-winning contractor would use much of the existing road and utility infrastructure in the base housing areas. As sections of each

of the rebuilt housing areas were completed, the base would allow families to move into those areas. For example, the command civil engineers expected the Bay Ridge neighborhood, the largest and most complex of the housing areas, to be occupied in four phases. Phase I would include housing for general officers (GO), field grade officers (FGO), and senior NCOs (SNCO); Phase II would contain housing units for senior officers (SO), FGOs, CGOs, and SNCOs; Phase III would provide homes for SOs, FGOs, and CGOs; and Phase IV would consist entirely of homes for CGOs. The 57 duplexes for junior NCOs (JNCO) to be built in Oak Park would all be opened to occupants at the same time, during Phase I of construction. Thrower Park and West Falcon, also consisting of JNCO housing, would be occupied in two phases. East Falcon, JNCO duplexes, would be the last of the housing erected. Planners hoped that families would only have to move once during the construction process.⁴⁶

Housing specifications reflected more modern expectations, with garages for each unit and larger floor plans. Homes identified for airmen in the grades E-1 to E-6 would have one-car garages, those for E-7 to E-9 and O-1 to O-6 would have two-car garages, and the three homes for general officers would be built with three-car garages. The RFP also provided for homes that would be built to significantly larger standards for all ranks, as shown in Figure 5.4. Also, as a general rule, the homes had more bedrooms, again reflecting current building prac-

Figure 5.4
New Keesler AFB Housing

| Grade | Previous Size (sq ft) | New 2 Bedrooms (sq ft) | New 3 Bedrooms (sq ft) | New 4 Bedrooms (sq ft) |
|------------------|--------------------------|------------------------------|------------------------------|------------------------------|
| E-1/6 | 1,220 | 1,480 | 1,630 | |
| CGO | 1,300 | 1,670 | 1,860 | |
| JNCO | 1,530 | | | 1,950 |
| SNCO | 1,650 | | | 2,150 |
| E-9 | 1,760 | | | 2,310 |
| Command Chief | 1,850 | | | 2,410 |
| CGO | 1,650 | | | 2,150 |
| FGO | 1,760 | | | 2,310 |
| SO | 1,930 | | | 2,520 |
| GO | 2,380 | | | 3,330 |

Source: Email, Michael T. Wilson, AETC/A7CPH, to Ashcroft, "RE: Keesler ADA MFH," 21 Apr 06, w/atc: Brgf, AETC/A7C/CEPH, "Keesler Housing MILCON Project MAH050805," 9 Feb 06.

tices. Officers O-4 and above and E-9s would live in single family, detached units, and the rest of the MFH units would be duplexes.⁴⁷

The housing privatization program was part of the larger DoD effort to turn over as much of its military family housing to private companies as was feasible. In 1996, Congress established a program to upgrade family housing on military bases. At the time, the average age of homes on Air Force bases was over 30 years and there was a shortage of available housing, with an estimated 40,000 families on waiting lists to move into on base housing. The primary means of accomplishing the

goal was allowing businesses to build, maintain, and operate on base housing developments. Military personnel would rent the homes from the companies; the Air Force paid for utilities, except telephone and cable. At the end of a 50-year agreement, ownership of the housing units would transfer to the Air Force. Existing base housing was turned over to the contractor, who would renovate some housing units and demolish others. AETC's first privatized housing project opened on Lackland AFB's Medina Annex in January 2000 and won a National Council for Public-Private Partnerships award.⁴⁸

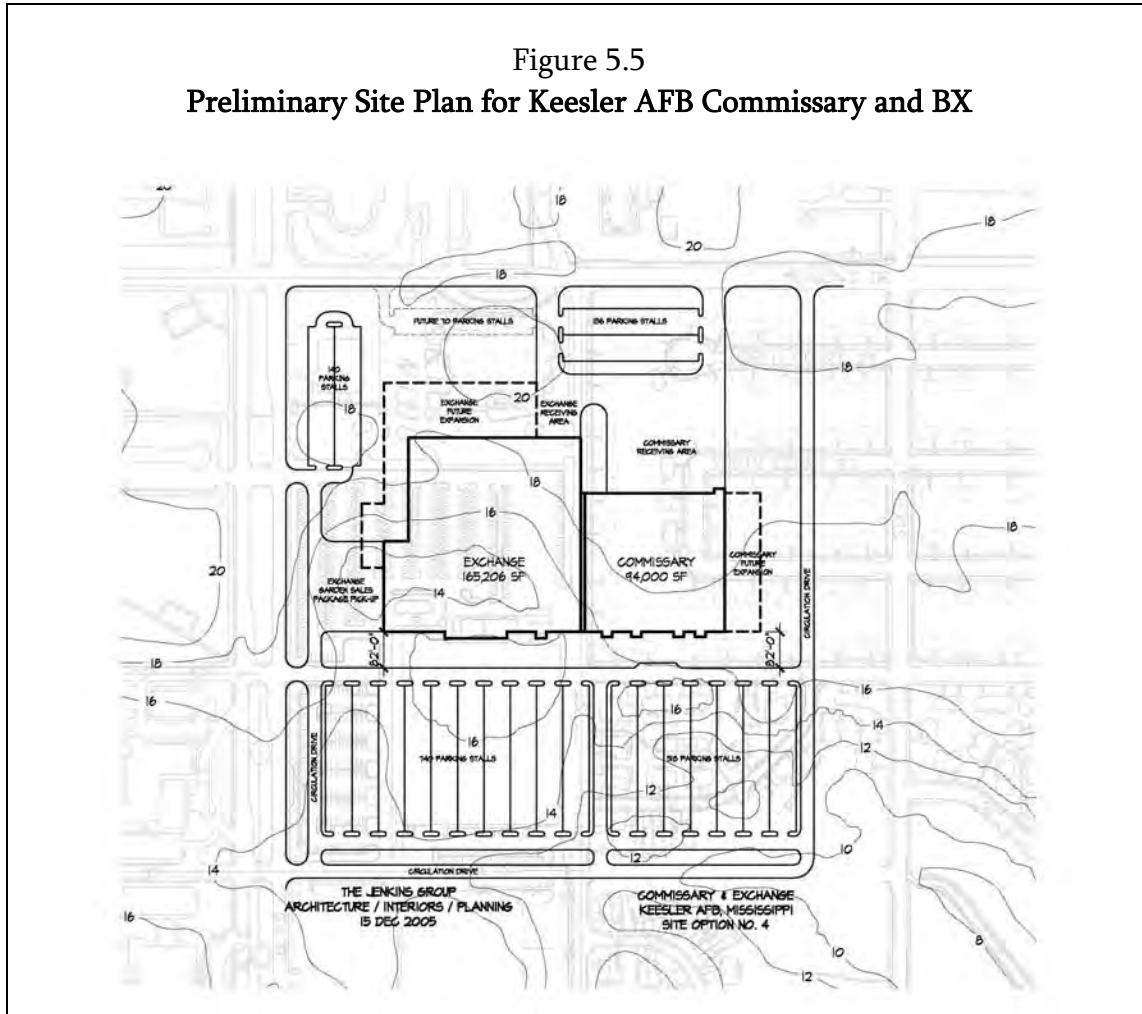
In February 2004, the command decided to privatize all of its family housing units by 2007, and expected the end-state to be about 8,800 units, about 30 percent fewer than the existing 12,300 units. Little Rock, with 1,200 units, would be the largest of these projects, Vance, with 229 units, the smallest. Officials projected that more than 1,000 units would be needed at Keesler and Lackland; Goodfellow, Luke, Randolph, Columbus all fell into the 400-500 unit range. To facilitate the goal of privatizing all of its housing, the command grouped the projects into three lots for competitive bid. In the first group of bases, the command included Altus, Luke, and Sheppard. The second round of bases would be Columbus, Keesler, Maxwell, and Tyndall; with Goodfellow, Laughlin, Randolph, and Vance comprising the last group. By August, the three-group program had evolved into two groups. The new Group 1 included Altus, Luke, Sheppard, and Tyndall AFBs; Group 2 included Columbus, Goodfellow, Keesler, Laughlin, Maxwell, Randolph, and Vance. The command released the Group 1 RFP on 4 January 2005 and expected to enter the selection process in late April. If all went well, officials expected to release the Group 2 RFP in November 2005. Selection criteria included cost, time to complete, quality, sustainment plan, past performance, and bidder qualifications. The command civil engineer's stated objective for the privatization program was "to provide 'access to safe, quality, well-maintained housing in a community where Air Force members will choose to live,' and where it will

be 'invisible' whether they are living in AF-owned housing or privatized housing."⁴⁹ The loss of base housing at Keesler, obviously, caused concern and the base was removed from Group 2.⁵⁰

As discussed previously, the base's main exchange building and the commissary were completely flooded. One of the contributing factors was the location of the C Street ditch that ran toward the BX and commissary. Instead of rebuilding on the same sites, a new exchange-commissary complex would be built on land that was higher in elevation on a site somewhat to the north of the flooded structures. Even so, specifications for the new buildings required the contractor to raise the buildings to a 20-foot ASL finished floor elevation, as much as six feet above the land's natural contour. The drawing below shows the BX and commissary footprint, plus the site's elevation contours. At the southeast edge of the main commissary parking lot, for example, the ground was as little as 10 feet ASL. Inside the exchange are 14-, 16-, and 18-foot contour lines, while most of the commissary was located on land at least 18 feet ASL.⁵¹

The command received \$3.8 million to build a temporary base exchange and \$44.3 million for a new commissary. The temporary BX, referred to as a "tent" by AAFES, would be similar to the expeditionary exchanges set up in areas where troops deployed. The structure contained a 30,000 square foot sales floor, with an additional 10,000 square feet of space for warehouse space and offices. The

Figure 5.5
 Preliminary Site Plan for Keesler AFB Commissary and BX



tent was fully insulated, contained heating and air conditioning, and had reinforced walls designed to withstand winds up to 130 mph. Construction of a permanent BX failed to make it out of the House Appropriations Committee. The committee report noted, “While current Department of Defense instructions allow for the use of appropriated funds to rebuild exchanges destroyed by natural disasters, the capital costs for Armed Forces exchanges are normally funded with non-appropriated funds.” The committee directed AAFES to fund the \$40 million for the Keesler BX.⁵²

The commissary, on the other hand, received Congressional approval because it was funded using already existing funds in the Defense Commissary Agency trust fund instead of MILCON dollars. The project entailed building a 106,000 square foot facility, and, as of 31 March 2006, the project was still in the design phase. Robert Moseley, in the 81 TRW Project Management Office, projected a completion date of March 2008 for the new facility.⁵³

Conclusion

The recovery and rebuilding of Keesler AFB began within days of the storm but was far from complete by the publication of this study. The largest individual projects were the cleanup of the BX and medical center, but nearly all of the family housing units had been destroyed or damaged. These dwellings, as well as nearly every building on base, required a careful inspection to document and repair damage. Throughout the process, health and safety experts advised Keesler team members, contractors, and Air Force personnel who deployed to assist with the cleanup and restoration projects. Environmental issues were a concern throughout, as Keesler took care of EPA-approved restoration of legacy sites, examined damage to the base's trees, and exercised caution throughout the cleanup to properly dispose of hazardous materials and to protect the health of cleanup workers and returning base residents from mold, asbestos, and other potential harms. Despite the use of pre-existing architectural and engineering services contracts that brought help quickly, the cleanup projects took weeks; reconstruction took longer. The family housing MILCON contracts, the largest MILCON projects ever, rewrote the books on building commercial, off-the-shelf housing. The cleanup and rebuilding was estimated at nearly \$1 billion.

When Lt Gen Donald Wetekam, Air Force deputy chief of staff for lo-

gistics, installations, and mission support, visited Keesler on 11 May 2006, he found the base had made rapid progress despite incredible adversity. "All of the senior leaders in the Air Force are committed to restoring the mission of the base, which has largely been accomplished, and then restoring the support infrastructure and capability of the base, which we are in the middle of doing." The can-do attitude of Keesler impressed him. In September, many Keesler members had lost their homes and most or all of their belongings, but they focused on restoring the base's training mission. "Within three weeks," General Wetekam noted, "classes were being taught, when most people thought it would take three months. And when you look around today, Keesler is up and operating in full force."⁵⁴ His observations are a tribute to the selfless perseverance and dedication of the men and women of AETC.

¹ Intvw, Ashcroft with Maj Szatanek, *et al.*

² See AETC histories for detailed accounts of base realignment and closure actions and the 2005 DoD BRAC website at <http://www.brac.gov> accessed 11 Apr 06.

³ Intvw, Ashcroft with Maj Szatanek, *et al.*

⁴ *Ibid.*

⁵ Email, AETC/DSEA Inbox to AETC/CE Inbox, *et al.*, "Congressional Tasker: Keesler AFB Status," 13 Oct 05.

⁶ Disc, Mason with 1st Lt Kelly Jaramillo, 1st Lt Amanda Langenbrunner, MSgt Randy Kinser, TSgt Bruce Monson, SSgt David Wiggers, and Mr Mark Smith, 56 CES, 15 Dec 05.

⁷ *Ibid.*

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² *Ibid.*

¹³ Keesler won a DoD-level environmental restoration award in 2004 for becoming the first base to have a remedy in place for all EPA sites.

¹⁴ Disc, Mason with John F. Chiaramonte, Jr., PE, AETC/CEVA, 8 Dec 05.

¹⁵ *Ibid.*

¹⁶ Rpt (FOUO), "Customer Guide for AETC Architect-Engineer (A-E) Environmental Contracts," 10 Jul 03, information used is not FOUO.

¹⁷ Disc, Mason with 1st Lt Jaramillo, *et al.*

¹⁸ Disc, Mason with Chiaramonte.

¹⁹ Intvw, Mason with 1st Lt Jaramillo, *et al.*

²⁰ Article, 16 SOW, "RED HORSE aids Keesler," *Commando* vol. 54, no. 32, 9 Sep 05.

²¹ Mr Biondo lost everything in the storm, and then worked 100 hour weeks with the recovery effort. He was the only environmental expert on site for the first few days (because the others were unable to return to the base), and he initially stayed in the Triangle area before moving into the dorms.

²² Disc, Mason with Chiaramonte; Rpt, 81 CES/CEV, "Statement of Work for Emergency Response and Spill Clean-up, Keesler AFB, Texas [*sic*]," 16 Sep 05; Email, Jaime Agudelo, AETC/A7CVQ, to Joseph Mason, AETC/HO, "FW: Final Report on the BX Cleanup at Keesler," 20 Apr 06, w/atc: Rpt, Weston Solutions, "Emergency Response and Spill Cleanup: Base Exchange, Keesler Air Force Base, Biloxi, Mississippi," Jan 06.

²³ Intvw, Mason with Maj Tim Stanek, 56 AMDS, 14 Dec 05.

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ Rpt, 81 CES, "Statement of Objectives: Hurricane Katrina UST Monitoring Well Redevelopment and Tightness Test, Keesler AFB, MS," 22 Sep 05; Rpt, CH2M HILL, "Environmental Restoration Site Assessment for Interim Removal/Repair Actions as a Result of Hurricane Katrina," 14 Oct 05.

²⁷ Rpt, 81 CES, "Monitoring Well Redevelopment," 22 Sep 05; Rpt, CH2M HILL, "Environmental Restoration Site Assessment," 14 Oct 05; Disc, Mason with Lisa Noble, 81 CES/CEVR, 10 May 06.

²⁸ Disc, Mason with Chiaramonte.

²⁹ Rpt, 81 CES, "Statement of Objectives: Hurricane Katrina Air Emission Equipment Assessment & Data Support, Keesler AFB, MS," 22 Sep 05; Draft Rpt, "Keesler AFB Post-Hurricane Katrina Air Emissions Equipment Assessment Report," 19 Oct 05.

³⁰ Rpt, 81 CES, "Statement of Objectives for Asbestos Removal, Keesler AFB, MS," Sep 05.

³¹ Mississippi Commission on Environmental Quality, Emergency Order No. 5062, 13 Sep 05.

³² Disc, Mason with Chiaramonte.

³³ Intvw, Mason with Maj Stanek.

³⁴ Intvw, Mason with Maj Stanek; Rpt, 81 CES, "Statement of Objectives for Asbestos Removal, Keesler AFB, MS," *ca.* 15 Sep 05.

³⁵ Rpt, 81 CES/CEV, AETC/CEV, and AFCEE, "Task Assignment Statement of Work for Damaged Urban Forest Assessment Management Plan at Keesler AFB, Mississippi," 16 Sep 05; Rpt, Trees America, "Keesler Air Force Base Urban Tree Inventory," Feb 06.

³⁶ Disc, Mason with Chiaramonte.

³⁷ Intvw, Ashcroft with Maj Szatanek, *et al.*

³⁸ Article, “Keesler Gets \$90 Million to Repair Infrastructure,” Air Force Print News, 22 Sep 05 from http://www.af.mil/news/story_print.asp?storyID=123011871 accessed 29 Mar 06.

³⁹ Email, Rick Enrico, AETC/A7CCT, to Ashcroft, “RE:,” 30 Mar 06, w/atch: Brfg, AETC/A7C, “SRM/Katrina MILCON,” Mar 06; Email Maj John Muratore, AETC/A7CCF, to Ashcroft, “Katrina Repair Info,” 30 Mar 06, w/2 atch: Brfg, 81 TRW, “Keesler Recovery Update,” 10 Mar 06, 2) List, AETC/A7C, “Hurricane Katrina Facility Repair Contractors Update,” 4 Jan 06; 119 STAT. 2680, PL 109-148, “Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act, 2006,” 30 Dec 05 from <http://www.defenselink.mil/dodgc/olc/docs/PL109-148.pdf> accessed 25 Apr 06.

⁴⁰ Report, Base Closure and Realignment Commission, Final Report, 8 Sep 05, Vol. 1, pp. 264-266, and Vol. 2, pp. K-38 and Q-81 from <http://www.brac.gov/Finalreport.asp> accessed 11 Apr 06.

⁴¹ Paper, 81 TRW, “Keesler Hospital Information,” Sep 05; Intvw, Ashcroft, with Brig Gen James J. Dougherty, 81 MDG/CC, 3 Nov 05; Email Maj John Muratore, AETC/A7CCF, to Ashcroft, “Katrina Repair Info,” 30 Mar 06, w/2 atch: Brfg, 81 TRW, “Keesler Recovery Update,” 10 Mar 06, 2) List, AETC/A7C, “Hurricane Katrina Facility Repair Contractors Update,” 4 Jan 06; Email, Donniss W. Davis, 81 CES/PMO, to Ashcroft, “FW: Keesler MILCON Projects,” 25 Apr 06.

⁴² Email, Michael T. Wilson, AETC/A7CPH, to Ashcroft, “RE: Keesler ADA MFH,” 21 Apr 06, w/atch: Brfg, AETC/A7C/CEPH, “Keesler Housing

MILCON Project MAH050805,” 9 Feb 06; Email, Michael T. Wilson, AETC/A7CPH, to Ashcroft, “RE: Keesler MILCON,” 29 Mar 06; Article, MSgt Roger Drinnon, “Keesler Infrastructure Continues to Improve after Katrina,” Air Force Print News, 2 Mar 06 from http://www.af.mil/news/story_print.asp?storyID=123016836 accessed 29 Mar 06.

⁴³ Email, Email, Wilson to Ashcroft, “RE: Keesler ADA MFH,” 21 Apr 06; Disc, Ashcroft and Mason with Michael T. Wilson, AETC/A7C/CEPH, 11 Apr 06.

⁴⁴ Intvw, Ashcroft with Maj Szatanek, *et al.*

⁴⁵ Email, Email, Wilson to Ashcroft, “RE: Keesler ADA MFH,” 21 Apr 06; Disc, Ashcroft and Mason with Wilson; Disc, Ashcroft and Mason with Rick Enrico, AETC/A7CCT, 30 Mar 06.

⁴⁶ Email, Wilson to Ashcroft, “RE: Keesler ADA MFH,” 21 Apr 06; Disc, Ashcroft and Mason with Wilson.

⁴⁷ Email, Wilson to Ashcroft, “RE: Keesler ADA MFH,” 21 Apr 06.

⁴⁸ Hist (FOUO), AETC, 2002-2003, pp. 95-96, information used not FOUO.

⁴⁹ Plan, AETC/PA, “Communication Plan on Housing Privatization,” May 04 from <http://www.pscmh.com/aetc1/IndustryForum/AETC-PA-QandA.pdf> accessed 21 Jun 05; Article, AETC/CE, “Program Information—Grouping,” 27 Apr 05; Fact Sheet, AETC/CE, [Family Housing Privatization], [Aug 04]; Fact Sheet, AETC/CE, “AETC Group I: OK, AZ, TX, FL,” Aug 04; BBP, AETC/CEPH, “AETC Housing Privatization,” 29 Dec04. “Program Information—Grouping” and both Fact Sheets are from the HQ AETC Civil Engineer homepage, <https://www.aetc.af.mil/ce> accessed 17 Jun 05.

⁵⁰ Disc, Ashcroft and Mason with Wilson.

⁵¹ Disc, Ashcroft and Mason with Enrico; Email, Enrico to Ashcroft, [Keesler BX-Commissary Site], 30 Mar 06, w/atch: Drawing, Jenkins Group, Exchange-Commissary, 15 Dec 05.

⁵² Disc, Ashcroft and Mason with Enrico; Article, Barbara Kirsch, "Recovering After the Storm," *The Exchange Post*, Apr 06 from

<http://www.aafes.com/pa/apr06expo.pdf> accessed 21 Apr 06; Report, House Appropriations Committee, "House Report 109-388 – To Accompany H.R. 4939," 13 Mar 06 from <http://www.ngaus.org/ngaus/files/ccLibraryFiles/Filename/000000001264/COMMITTEE%20REPORTS.doc> accessed 21 Apr 06.

⁵³ Brfg, 81 TRW PMO, "Keesler PMO Conference," 3 Apr 06.

⁵⁴ Article, TSgt Dan Neely, 81 TRW/PA, "AF official praises Keesler recovery, emphasizes challenges ahead," *Air Force Print News*, 17 May 06.

**Appendix A
Training Priorities**

| Enlisted Initial Skills | | | | | |
|--------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------|---------------------|----------------------|
| AFSC | Course Title | Students | Active Duty (AD) Priority | ANG Priority | AFRC Priority |
| 3C1X2 | Electromagnetic Spectrum Manager | AD, ANG, AFRC, Navy, Marine Corps (MC), Int | 1 | | |
| 1C0X2 | Aviation Resource Management | AD, ANG, AFRC, Int | 2 | 9 | 22 |
| 1C2X1/ 1C1X1 | Combat Control/ Air Traffic Control | AD, ANG, | 3 | 19/10 | |
| 3S0X1 | Personnel | AD, ANG, AFRC, Int | 4 | 26 | 35 |
| 3A0X1 | Information Management Specialist | AD, ANG, AFRC, Int | 5 | 20 | 38 |
| 3S2X1 | Education and Training | AD, ANG, AFRC, Int | 6 | 27 | 37 |
| 1A3X1 | Airborne Communications & Electronics | AD, ANG, AFRC | 7 | 1 | 1 |
| 1A4X1 | Airborne Battle Management | AD, ANG, AFRC | 8 | 5 | 3 |
| 2E2X1 | Computer, Network, Switching & Cryptologic | AD, ANG, AFRC, Int | 9 | 2 | 9 |
| 2E1X3 | Ground Radio Communications | AD, ANG, AFRC, Int | 10 | 13 | 5 |
| 3C1X1 | Radio Communications | AD, ANG, AFRC, Int | 11 | 7 | 29 |
| 1W0X1 | Weather | AD, ANG, AFRC, Navy, MC, Coast Guard, Int | 12 | 17 | 2 |
| 1C7X1 | Airfield Management | AD, ANG, AFRC | 13 | 12 | |

| AFSC | Course Title | Students | AD Priority | ANG Priority | AFRC Priority |
|--------|-----------------------------------------------------------|--------------------|-------------|--------------|---------------|
| 3S3X1 | Manpower | AD, Int | 14 | 21 | |
| 1A5X1* | Airborne Missions Systems | AD, ANG, AFRC | 15 | 1 | 1 |
| 2P0X1 | Precision Measurement Equipment | AD, Int | 16 | 25 | 33 |
| 3C0X1 | Communications-Computer Systems Operator | AD, ANG, AFRC, Int | 17 | 4 | 27 |
| 2E1X2 | Meteorological & Navigation | AD, ANG, AFRC, Int | 18 | 15 | 4 |
| 1C5X1 | Aerospace Control & Warning | AD, ANG, AFRC | 19 | 7 | 23 |
| 2E1X4 | Visual Imagery & Intrusion Detection | AD, ANG, AFRC | 20 | 11 | 7 |
| 2E0X1 | Ground Radar | AD, ANG, Int | 21 | 16 | 8 |
| 6F0X1 | Financial Management & Comptroller | AD, ANG, AFRC, Int | 22 | 24 | 34 |
| 1C3X1 | Command Post | AD, ANG, AFRC | 23 | 8 | 21 |
| 3C3X1 | Communications-Computer Systems Planning & Implementation | AD, ANG | 24 | 22 | 28 |
| 3C2X1 | Communications-Computer Systems Control | AD, ANG, AFRC, Int | 25 | 23 | 30 |
| 3C0X2 | Communications-Computer Systems Programming | AD, ANG, AFRC, Int | 26 | 5 | 28 |

* 1A5X1 merged with 1A3X1 in October 2005

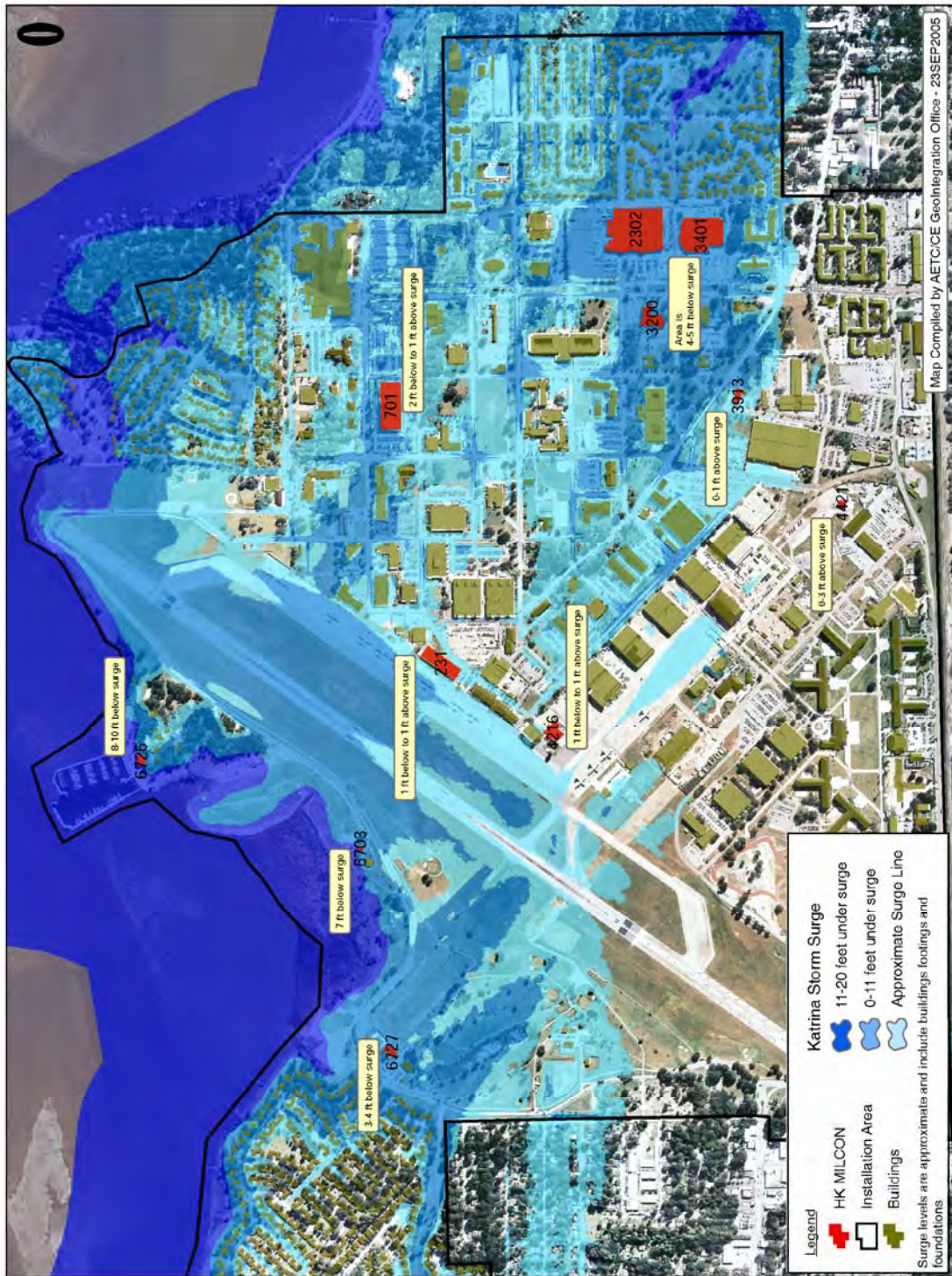
SOURCE: Email, Lt Col Chuck F. Watterson, AETC/DOOI, to 81 TRG/CC, *et al.*, "FW: Excell Version of Priority List," 12 Oct 05, w/atc: Memo, AF/DP to AETC/CC, "81 TRW Training Reconstitution Priorities," 6 Oct 05.

| Officer Initial Skills | | | | | |
|-------------------------------|---------------------------------------------------------------|------------------------------------|----------------------------------|---------------------|----------------------|
| AFSC | Course Title | Students | Active Duty (AD) Priority | ANG Priority | AFRC Priority |
| 13D1B | Special Tactics Officer | AD | 1 | 6 | |
| 13M1 | Airfield Operations Officer | AD, ANG, International (Int) | 2 | 6 | 6 |
| 15W1 | Weather Officer | AD, ANG, AFRC, Int | 7 | 5 | 1 |
| 33S3 | Expeditionary Aerospace Force Communications Officer Training | AD, ANG, AFRC, Civilian (Civ), Int | 5 | 3 | 5 |
| 33S3A* | Communications Officer, Engineering | AD, ANG, AFRC, Civilian, Int | 3 | 4 | 4 |
| 37F1 | Basic Manpower-Personnel Officer | AD, ANG, AFRC, Civilian, Int | 6 | 2 | 3 |
| 65F1 | Financial Management Officer | AD, ANG, AFRC, Civilian, Int | 4 | 1 | 2 |

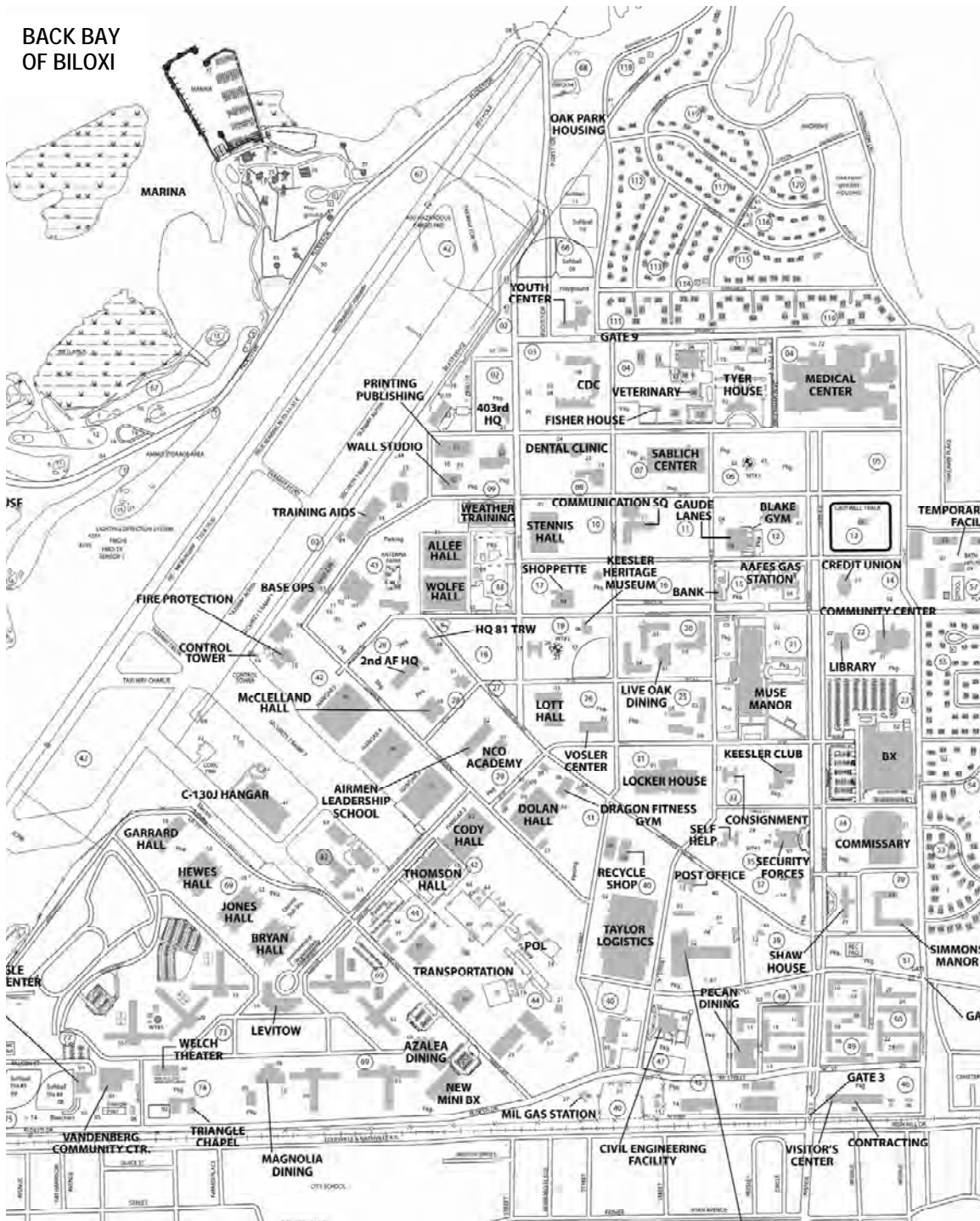
* 33S3 has a higher priority than 33S3A because it feeds 33S3A

SOURCE: Email, Maj Gen Gilmary Hostage, AETC/DO, to Todd Fore, AETC/DOP, and Col Susan J. Helms, AETC/ADO-TT, "FW: PDF File—Keesler Training Priorities—Officers," 3 Nov 05, w/atch: Memo, AF/DP to AETC/CC, "Officer Training Priorities/Disposition and Additional Enlisted Student's Disposition," 1 Nov 05.

Appendix B Hurricane Katrina Storm Surge on Keesler AFB



Appendix C Central Portion of Keesler AFB



Glossary

| | |
|--------|----------------------------------------------------|
| 1st Lt | First Lieutenant |
| 2nd Lt | Second Lieutenant |
| A1C | Airman First Class |
| AAFES | Army-Air Force Exchange Service |
| AB | air base |
| ABW | Air Base Wing |
| ACC | Air Combat Command |
| ACSC | Air Command and Staff College |
| ADL | advanced distance learning |
| ADSL | average daily student load |
| AEF | Air and Space Expeditionary Force |
| AEG | Air Expeditionary Group |
| AETC | Air Education and Training Command |
| AF | Air Force |
| AFAF | Air Force Assistance Fund |
| AFAS | Air Force Aid Society |
| AFB | air force base |
| AFI | air force instruction |
| AFIT | Air Force Institute of Technology |
| AFOATS | Air Force Officer Accessioning and Training School |
| AFPC | Air Force Personnel Center |
| AFRC | Air Force Reserve Command |
| AFROTC | Air Force Reserve Officer Training Corps |
| AFS | Air Force Specialties |
| AFSC | Air Force Specialty Code |
| AFSOC | Air Force Special Operations Command |
| AMC | Air Mobility Command |
| AMW | air mobility wing |
| ANG | Air National Guard |
| AOC | Air Operations Center |
| APOE | aerial port of embarkation |
| ARC | Air Reserve Component |
| AS | airlift squadron |
| ASL | above sea level |
| ASM | aircraft structural maintenance |
| ATC | air traffic controller |

| | |
|----------|----------------------------------------------------------|
| atch | attachment |
| ATM | automated teller machine |
| AU | Air University |
| AW | airlift wing |
| BBP | bullet background paper |
| BEE | bio-environmental engineering |
| BIC | basic instructor course |
| BIT | break in training |
| BOS | base operating support |
| BMT | basic military training |
| BRAC | Base Realignment and Closure |
| Brfg | briefing |
| Brig Gen | Brigadier General |
| BX | Base Exchange |
| CAF | Combat Air Forces |
| CAP | Civil Air Patrol |
| Capt | Captain |
| CAT | Crisis Action Team |
| CBT | computer based training |
| CCAF | Community College of the Air Force |
| CCT | combat controllers |
| CDC | career development course, also child development center |
| CDQ | combat dive qualification |
| CE | civil engineer |
| CES | civil engineer squadron |
| CFETP | Career Field Education and Training Plan |
| CFM | career field manager |
| CGO | company-grade officer |
| Chap | Chaplain |
| CHOP | change in operational control |
| CLO | Chief Learning Officer |
| CMSgt | Chief Master Sergeant |
| COA | courses of action |
| CoE | Centers of Excellence |
| Col | Colonel |
| CONUS | continental United States |
| CPTS | comptroller squadron |
| CS | competitive sourcing |
| CS&P | competitive sourcing and privatization |

| | |
|----------|-------------------------------------------------------------------------|
| CSAF | Chief of Staff of the Air Force |
| CSAR | combat search and rescue |
| CTK | consolidated tool kits |
| DCS | deputy chief of staff |
| DeCA | Defense Commissary Agency |
| Det | detachment |
| DIMHRS | Defense Integrated Military Human Resources System |
| DISA | Defense Information Systems Agency |
| Disc | Discussion |
| DL | distance learning |
| DoD, DOD | Department of Defense |
| Dr | Doctor |
| DSN | Defense Switched Network |
| Email | Electronic mail |
| EMEDS | expeditionary medical system |
| EMEDS+10 | a 10-bed EMEDS |
| EMT | emergency medical technician (paramedic) |
| EP | electronic principles |
| EPA | Environmental Protection Agency |
| ESOH | environmental, safety, and occupational health |
| ETCA | Education and Training Course Announcements |
| FAA | Federal Aviation Administration |
| FACC | Family Assistance Control Center |
| FBI | Federal Bureau of Investigation |
| FEMA | Federal Emergency Management Agency |
| FGO | field-grade officer |
| FinPlan | financial plan |
| FOUO | for official use only |
| FPCON | force protection condition |
| FSTR | Full Spectrum Threat Response |
| FTD | field training detachment |
| FTU | formal training unit |
| FTG | flying training group |
| FTW | flying training wing |
| FW | fighter wing |
| FY | fiscal year (FY05 is Fiscal Year 2005, which lasted 1 Oct 04-30 Sep 05) |
| FYDP | future years defense program |

| | |
|---------|-----------------------------------------------|
| GAO | Government Accountability Office |
| GCCS-J | Global Command and Control System-Joint |
| GO | general officer |
| HAZMAT | hazardous material |
| Hist | history (i.e. official unit history) |
| HQ | headquarters |
| HURCON | hurricane condition |
| HVAC | heating, ventilation, and air conditioning |
| ICBM | inter-continental range ballistic missile |
| ICU | intensive care unit |
| ID | identification |
| IDIQ | Indefinite Delivery/Indefinite Quantity |
| IFR | instrument flight rules |
| ILE | Integrated Learning Environment |
| IMET | International Military Education and Training |
| Intvw | Interview |
| IPT | integrated process team |
| ITC | interim training center |
| ITRO | Interservice Training Review Organization |
| JNCO | junior non-commissioned officer |
| JROTC | Junior Reserve Officers Training Corps |
| JTF | joint task force |
| LRS | logistics readiness squadron |
| Lt Col | Lieutenant Colonel |
| Lt Gen | Lieutenant General |
| Maj | Major |
| Maj Gen | Major General |
| MAJCOM | Major Command |
| MICAP | mission capability |
| MILCON | military construction |
| MFH | military family housing |
| MOA | memorandum of agreement |
| MOU | memorandum of understanding |
| mph | miles per hour |
| MRE | meal, ready-to-eat |
| MSG | mission support group |

| | |
|------------|-------------------------------------------------------------------------|
| MSL | mean sea level |
| MSgt | Master Sergeant |
| MTL | military training leader |
| MWR | Morale, Welfare, and Recreation |
| NAF | non-appropriated funds (also, numbered air force) |
| NAS | naval air station |
| NCC | network control center |
| NCO | non-commissioned officer |
| NCOA | NCO Academy |
| NDI | non-destructive inspection |
| NEPA | National Environmental Protection Act |
| NORTHCOM | United States Northern Command |
| NPS | non-prior service |
| O&M | operations and maintenance |
| OG | operations group |
| OIC | officer initial skills |
| OJT | on-the-job training |
| OL | operating location |
| OMC | official mail center |
| OSD | Office of the Secretary of Defense |
| OSHA | Occupational Safety & Health Administration |
| OSI | Office of Special Investigations |
| OTS | Officer Training School |
| PCS | Permanent Change of Station |
| PERSCO | personnel support for contingency operations |
| PFT | program flying training |
| POM | program objective memorandum |
| PRIME BEEF | Prime Base Engineer Emergency Force |
| PSC | postal service center |
| RED HORSE | Rapid Engineer Deployable Heavy Operational Repair Squadron Engineer |
| RFP | request for proposal |
| RHS | RED HORSE squadron |
| ROTC | Reserve Officers Training Corps |
| Rpt | report |
| SAF/AQ | Assistant Secretary of the Air Force for Acquisition |

SECAF Secretary of the Air Force
 SECDEF Secretary of Defense
 SF security forces
 SFS Security Forces Squadron
 SITREP situation report
 SMSgt Senior Master Sergeant
 SNCO senior non-commissioned officer
 SO senior officer
 SOW Special Operations Wing
 SrA Senior Airman
 SSgt Staff Sergeant
 SVS Services Squadron
 SWATS Satellite, Wideband, and Telemetry Systems

TACC Tanker Airlift Control Center
 TDC Theater Deployable Communications
 TDY temporary duty
 TLN training line number
 TOS time on station
 TPM training program manager
 TPR Trained Personnel Requirement
 TRG training group
 TRS training squadron
 TRW training wing
 TRQI Training Requestor Quota Identifier
 TSgt Technical Sergeant
 TT technical training
 TTMS Technical Training Management System

UCC Unit Control Centers
 UMD unit manning document
 USAF United States Air Force
 UTC unit type code

VFR visual flight rules
 VTC video teleconference

w/ with
 w/atch with attachment(s)

YAC youth activity center