



Flight 5050:

A Response En Masse

Passengers were adrift in the bay or trapped in the jumbled interior of the plane. More than a thousand emergency workers went to their aid.

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Chief Butler, who was Queens Borough Commander at the time of the Flight 5050 crash, put together this account from numerous interviews with members.

The minutes during which passengers began evacuating U.S. Air Flight 5050 last September 20 were relatively quiet. The Boeing 737-400 jetliner had snapped into three pieces, and the smell of combustible liquids mingled with the pre-midnight fog and light rain. But as they slid down an emergency chute into Bowery Bay or climbed out onto a wing, the passengers stayed calm, waiting in the dark for help.

Help came fast and en masse, changing the scene to one of lights, noise, and motion. Fourteen hundred emergency workers converged on LaGuardia Airport with 133 pieces of apparatus, 39 boats and rafts, and a helicopter. The largest mass of rescuers would gather at the end of the runway, providing support for about two dozen individuals who worked in the water and inside the plane.

Flight 5050, with 57 passengers and a crew of 6, was supposed to go to Charlotte, North Carolina. It had quickly accelerated down runway 13-31, but takeoff was aborted. The decision came too late—the momentum carried the jetliner beyond the edge of the concrete runway and, at 2320 hours, it crashed in 25 feet of water. Two minutes later, the control tower

The nose of the Boeing 737 was held out of the water by an approach lighting system pier. Photo courtesy of the Port Authority



transmitted the signals that inform the Port Authority Police, the FDNY, the Emergency Medical Service, and the Police Department of a crash. (The FDNY's connection is the "crash box," box 37. See "Airport Layout and Response," page 6.)

CONVOY

The Port Authority crash trucks stationed at LaGuardia were the first to arrive. Port Authority Police Lt. Dennis Cannon was the tour commander, and his vehicle became the command post. FDNY Battalion Chief Edward Weber, covering in Battalion 49, was met at the 82nd Street gate; a PA escort took the chief, four engine companies, two ladder companies, and Rescue 4 to the edge of the runway.

The tail of the plane was just 10 feet away, and it was rocking; unbeknownst to rescuers, it was prevented from sinking by the electrical cables for an approach lighting system supported by a pier farther out. Hidden in the darkness, the nose of the plane rested on that pier. The fuselage was 15 feet lower than the concrete deck that forms the runway. The wings were barely above water.

There were people lined up on the left wing as though they were waiting for a bus. A number of other passengers had slid down an emergency chute on the right side. They were in the water, drifting in the 3-to-4-knot current toward the corner of the runway pier, in the direction of Flushing Bay. Thinking the plane had crashed on land, they hadn't taken their seat-cushion flotation devices with them when they evacuated. But many had grabbed onto pieces of



With the survivors out, attention turned to removing the two women who were dead when rescuers had arrived. They were still strapped into their seats at the main break. Photo by Frank Incantalupo

driftwood from the damaged pier. And fortunately, the water temperature was in the 60s, the air temperature 72 degrees.

The Port Authority personnel were using their patrol car spotlights to pinpoint these drifting victims, and their public address loudspeakers to let them know help was on the way.

Time was critical. The plane would have had a heavy load of fuel at takeoff, and the smell of combustible liquids was strong. B.C. Weber ordered several of the engine companies to prepare for a hoseline relay to the PA apparatus. At the same time, the five-gallon cans of fluoroprotein foam concentrate were removed from all apparatus in preparation for a foam operation. (As it turned out, there would be no fire to complicate this emergency operation. The fuel tanks in the wings remained intact, and although a belly tank was ripped open, only a small amount of jet fuel spilled.)

WATER RESCUES

The rest of the troops quickly started finding ways to reach the people in the water. Some threw life rings and hauled victims in that way. Ladder 154, under Lt.

Tower buckets served as observation posts and a conduit for tools being passed down to the inside rescue crew. An officer at the door was a go-between. Photo by Frank Incantalupo



Dan Buckheit's command, placed a 35-foot portable extension ladder from the runway's edge to the plane's rear horizontal stabilizer, lashed it down at both ends, and helped people climb out of the water. Other Fire Department members donned life preservers, exposure suits, or dry suits and scuba gear; they climbed down ladders, slid down ropes, or were lowered by rope to the water.

Firefighters Mike Milner and Richard Gardner of Rescue 4 made the arduous swim to the left wing. The task was made harder by the fact that petroleum products floating on the water severely irritated the firefighters' skin—a problem all our members who entered the water would encounter.

En route as part of the Rescue Liaison Unit, Capt. John Cerato had requested that the FDNY's three scuba units (Rescues 1, 2, and 5) respond. (This would put all five rescue companies at the scene, since Rescues 3 and 4 were already assigned.) When Rescue Liaison reached the scene, Fr. Carl Fielmoser tied a lifeline at the runway, swam to the left wing, and tied off the other end of the line at the emergency exit over the wing. If the plane should sink, the line would pinpoint the emergency exit and give passengers on the wing a shuttle to safety.

By this time, some of the passengers had slipped off the wing. Firefighters Vincent Doherty and Carl Schramm of Hazardous Materials Co. 1 swam to the left side of the aircraft to help water-borne victims into the arriving police and Coast Guard boats.

On their way to rescue victims visible from the runway, the FDNY members had also discovered two passengers who were beyond rescue—two women who had died in the crash. They were still strapped in their seats, their bodies stranded in the air at the main break. But because the aircraft rested so precariously, removal of these two fatalities would have to wait until operations inside the plane could be completed.

TRAPPED INSIDE

Those operations were now under way—Fielmoser, Milner, and Gardner had entered through the emergency exit door over the left wing. The aisles were cluttered with seat cushions, luggage, and debris; the floor was slippery and the plane was dark. Some passengers were standing about, others were still strapped into their seats.

A flight steward told the rescuers a woman was trapped near mid-plane. As Gardner calmed the passengers and helped them get out to the wing, Fielmoser and Milner started toward the rear.

The trapped woman had also been spotted from the outside. Lt. Al Warta and another Haz Mat member, Fr. Kevin Smith, had seen her right arm protruding from a window as they swam toward the right wing. She was just forward of the main break, and her hand was in the water.

Smith dove under the fuselage and got into the plane through the jagged edges of torn metal. Warta

entered the plane at the wing and joined Fielmoser and Milner. They worked their way down the incline of the narrow aisle, clearing away seats, luggage, and debris floating in water.

When they reached row 21, they could see Sue Peterson's left arm sticking out of the wreckage. She was pinned sideways in a window seat, her face close to the water, and she was begging for help.

Kevin Smith now joined them, and the four members tore at the serving tray, seat retainers, and other obstacles with their bare hands. Their only tool was a dive knife that Fielmoser carried.

The tide was rising, and it was dark and hot. The fuselage was unstable near the break. The woman could smell fuel and feared a fire. The rescuers talked calmly as they worked, giving the woman some psychological first aid.

At last, she was freed, carried to the front of the aircraft, placed on a backboard and Stokes basket, and



Ladders and rafts were the main devices for retrieving waterborne passengers. Photo courtesy of The New York Post

slid out onto the wing. From there, she was eased into a rescue company's Switlick raft (a motorless, inflatable raft about nine feet in diameter, used to hold persons out of the water while awaiting transfer to a motorized craft).

Peterson was just one of many passengers being brought to land at many places. Victims who'd been lifted to the runway mixed in with the emergency personnel or walked away on their own initiative. Others were transported to an airport hangar. EMS was doing an excellent job of accounting for the survivors transported to nearby hospitals, but otherwise, getting an accurate count of the victims was a problem. As D.C. Thomas Neville, Division 14, was setting up the FDNY command post, he special-called a battalion chief as victim coordinator. Later, when A.C. Frank Nastro arrived as citywide command chief, he would request a passenger list—as well as ordering a roll call of FDNY units and members.



The broken fuselage—partially submerged by the next day—had already been rocking, twisting, and visibly sinking as rescuers worked inside. Photo courtesy of the Port Authority

The numbers of personnel and apparatus made not only tracking difficult, but also communications. The shouts of members in the water were lost in the din of dozens of engines, and Handie-Talkie communications weren't much better.

So two tower buckets were put to use as observation posts to place officers in view of the rescuers in the water. B.C. Weber instructed Ladder 117 to extend its bucket to the right side of the aircraft. Lt. William Donald, Jr., had the bucket placed over the right horizontal stabilizer and a portable ladder dropped to the right rear door.

Ladder 163 took a position to the left side. The escape ladder on this tower ladder's boom—unlike most others in the FDNY—has enclosed rails. Capt. Richard Rewkowski was concerned that passengers standing on the wing might try to jump onto the extended bucket, toppling the apparatus. He decided not to lower the platform to the wing, but instead had members lower a portable ladder from the bucket.

Capt. Brian O'Flaherty of Rescue 1 and Lt. Pete Lund of Rescue 3 climbed into the two tower buckets to coordinate communications and an equally important function—the transfer of tools.

TAIL SECTION

When Rescue 3 had arrived, Firefighters Jerry Murtha and Chris Blackwell had climbed down a straight, portable ladder that was lashed to the edge of the runway, then swum to the right rear exit door.

While Blackwell swam up the side looking for another entrance, Murtha entered and searched the lavatories at the rear of the plane. Then he searched forward up a steep, slippery slope. The floor of the aircraft had left its mounting on impact and now rose at a steady incline, closing off the tail section at the main break. The dark, narrow aisle was cluttered with luggage thrown from the overhead compartments, as well as other debris. The seats were pitched forward, accordion-like. The rails to which the seats were bolted undulated like a roller coaster.

Murtha could hear a voice calling for help. In aisle 22 was passenger Ann Crews. The impact had pushed her

up and into the overhead compartment, with her knees against her chest and her head forward, but she was fairly calm.

In a moment, Milner (who had swum to the rear after helping with Sue Peterson's rescue) and Blackwell joined Murtha. The firefighters called for a Hurst Tool. Without waiting for it, they began ripping material away from the trapped woman with their bare hands.

The Hurst Tool generator was placed in Ladder 117's bucket; the "O" cutters, the ram, and several lengths of hydraulic hose were fed inside the plane. Rescue 4's Lt. Williams descended from Ladder 117's bucket and took a position inside the right rear door to coordinate the efforts. There he had contact with the outside world and with the dangerous inside mission.

Airport Layout and Response

LaGuardia Airport is a 650-acre site with two major runways, each 7,000 feet long and 140 feet wide. One extends over Flushing Bay, the other over Bowery Bay. Beyond the bay end of each runway is a 3,000-foot-long pier supporting an approach lighting system with sequenced flashers.

The control tower is connected to the Queens Central Communications Office by a direct phone line. At the time of the U.S. Air crash, box 37, the "crash box," required an automatic third alarm. It and its equivalent at Kennedy Airport, box 269, have since been modified to a second alarm plus the special units normally assigned on a third:

- 8 regular engines
- The Maxi-Water Unit (Engine 207), 2 satellite units, and a foam unit
- 4 ladder companies
- 2 battalions chiefs
- 1 deputy chief
- 2 rescue companies
- 1 marine company



The three firefighters worked like an operating room team, passing tools and holding equipment as they took turns working in the cramped space. The ram attachment worked inefficiently at first because the head pushed into the plastic surroundings, until it got a good bight against a supporting member of the fuselage. Murtha switched to the “O” cutters to cut away the serving tray, seat legs, and other obstacles.

Noise from the helicopter interfered with communications, and the chopper had to be sent away. The activity around the plane—helicopter, boats, and current—rocked this rear section where the rescue team worked. The water rose as the tail rolled to the left, slipped off a couple of the electrical cables on which it rested, and tilted more sharply upward. Rivets could be heard popping from the strain. It was like working

in a sinking submarine! one of the rescuers exclaimed.

Hampered by their exposure suits, the firefighters took them off. The buoyancy of the suits might only trap them if the plane sank farther. As it was, the only exit was at the slowly sinking rear door—but this brave crew wouldn’t leave Ann Crews there alone. Finally, 45 minutes from the time of contact, the woman was freed and taken to safety.

REMOVALS

Now the bodies of the two obvious fatalities could be removed. This mission fell to Lt. Warta and Firefighters Fielmoser and Smith. They had to climb from Ladder 163’s bucket to the top of the slippery, curved fuselage and work from a precarious position to lower the bodies to NYPD boats waiting below.

- Hazardous Materials Co. 1
- The Field Communications Unit
- An FDNY mobile medical unit

The Port Authority of New York and New Jersey, which operates the airports, has its own response. Its specialized aircraft crash vehicles carry large quantities of aqueous film-forming foam (AFFF) concentrate, Purple K concentrate, and water. These will arrive before the FDNY.

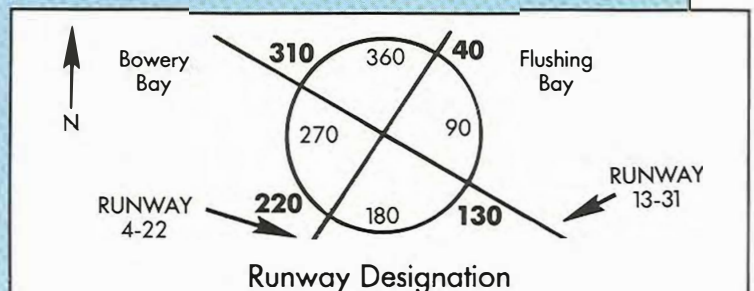
But an airport’s nearest hydrant is a long distance from the end of the runway. So the main objective of FDNY engine companies is to set up a relay that will keep water flowing to the PA crash units, allowing ladder companies and rescue personnel to evacuate, search for, and recover passengers.

The Fire Department and Port Authority’s joint contingency plans call for all FDNY units to line up at one gate and wait for a Port Authority police escort. The police not only show the way, but communicate with the air traffic controller for permission to cross the busy runways. The PA police brief the first-arriving chief before the convoy proceeds. Later-arriving units are to stage at the gate and await orders from the incident commander.

At any aircraft emergency at either LaGuardia or Kennedy, the airport’s PA police tour commander is the incident commander, and other agencies play a support role. A blue-on-gold flag on the vehicle designates it as the command post location.

Through drills and the constant sharing of information, the Port Authority has always been extremely cooperative in helping the Fire Department fulfill its role in interagency operations such as the U.S. Air crash.

—E.B.



Understanding how runways are laid out and numbered can help FDNY responders interpret radio transmissions regarding aircraft disasters. For example, knowing that an aircraft approaching LaGuardia’s runway 4-22 from the northeast is running out of fuel would indicate rescues may be necessary in and around Flushing Bay.

The numbering system is based on the points of the compass. A designation combines the compass readings—minus the trailing zero—for each end of the runway. Thus runway 4-22 intersects an imaginary compass circle at 40 and 220 degrees, while runway 13-31 intersects the compass at 130 and 310 degrees.

There was still one more operation to accomplish. Then-Chief of Department Homer Bishop was asked for the FDNY's help in retrieving the "black box" recorder which would be a vital part of the National Transportation Safety Board's investigation. The black box was contained in the tail section.

Capt. Charles Driscoll was directed to have his unit, Rescue 5, stabilize the tail using the rig's A-frame winch and a wire sling. (This wasn't done earlier because the process itself would cause movement which might have made the inside rescue more dangerous.) Fr. Peter Brunaes and an NYPD diver swam to the right rear door, passed the wire through the partially submerged door to the left side, and looped it back to the power winch. The cable was reeled in and made taut. Brunaes made a second dive to attach a backup cable to an eye bolt under the tail, and this cable, too, was made taut.

The Police Department recovered the black box, and the incident was no longer an emergency. Hundreds of responders began taking up, leaving the scene to



In a moving demonstration of gratitude for her rescue, passenger Ann Crews traveled from Virginia to attend Medal Day. Medal winners Chris Blackwell (left) and Jerry Murtha (right) topped her list of people to thank.



When salvage began, the tail was lifted using an arrangement similar to the one Rescue 5 had used to stabilize it during the search for the black box. Photo courtesy of The New York Post

another group of professionals: the investigators who would determine the cause of the crash.

LESSONS

1. A disaster with the potential for mass casualties requires a large response. Yet a balance must be struck between providing enough personnel and maintaining communications and control. Earlier this year, the response on the "crash boxes" at both airports was modified to include several units fewer.

2. In a massive operation such as this one, noise can drown out communications. Apparatus not in use should be moved to a staging area, and when practical, chauffeurs should turn off their rigs' engines. In addition, members should be aware that Handie-Talkie communications appear to be better if the sender and the receiver of the message are in eye contact.

3. Tower buckets, carefully positioned, can provide observation posts and a conduit for tools.

4. The aisles inside an airplane—narrow and difficult to negotiate even normally—may become impassible after a plane crash strews contents about.

Aircraft Access

During an emergency, several basic construction features are important to rescuers trying to enter large commercial aircraft (as distinguished from commuter airplanes, which hold no more than 30 passengers).

The way doors open, for example, affects ladder placement. Almost all doors and emergency exits will open upward into the aircraft, swing out toward the front of the plane, or drop down to form stairs. (Emergency exits located over wings open into the aircraft and detach completely, like plugs.)

The exceptions in which doors swing out to the rear are rare enough to make the following generalization about ladder placement possible:

FDNY units required to open the doors of large commercial aircraft from the outside should place a

ladder or tower bucket next to the door, at the rear side. This will keep members out of the way of both the opening door and emergency evacuation chutes which, if present, deploy with explosive force.

Breaching the outer skin of a commercial aircraft this size is only a last resort—and the only acceptable place to cut is around the windows. The top and bottom of the fuselage could contain the plane's hydraulic, electrical, oxygen, and other systems; breaching there won't gain entry to the passenger compartments, and it's extremely dangerous.

Instead of cutting through those areas of the fuselage, the window openings should be enlarged by cutting from slightly above the windows (below the overhead luggage compartments) to a foot or so below them.

—E.B.