

**NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF AVIATION SAFETY
WASHINGTON, D.C.**

December 9, 2008

SURVIVAL FACTORS GROUP CHAIRMAN FACTUAL REPORT

A. **ACCIDENT** : DCA08MA076
 LOCATION : San Francisco International Airport
 DATE : June 28, 2008
 TIME : 2215 Pacific Daylight Time (PDT)
 AIRCRAFT : Boeing B-767-200 (N799AX)
 OPERATOR : ABX Air, Inc.

B. **GROUP MEMBERS**

Chairman: Nora Marshall
 NTSB
 Washington, D.C.

Member: Patrick J.Casserly Jr.
 Assistant Deputy Chief
 San Francisco Fire Department

Member: Adrian Ruddie,
 767 Manager Flight Standards
 ABX Air

Member: Russ Leighton,
 Chairman Air Safety Committee
 Teamsters Local 1224

C. **SUMMARY**

On June 28, 2008, about 2215 Pacific daylight time (PDT),¹ an ABX Air Boeing 767-200, registration N799AX, operating as flight 1611 from San Francisco International Airport (SFO), San Francisco, California, experienced a ground fire before engine startup. The fire was located in the supernumerary area,² so the two pilots had to egress the airplane through the cockpit windows. No injuries were reported, and the airplane

¹ All times in this report are PDT based on a 24-hour clock unless otherwise noted.

² The supernumerary area is the portion of the airplane that is located directly aft of the cockpit and forward of the main deck cargo compartment. This area is where the lavatory, galley, and three non-flight crew seats are located.

was substantially damaged. The cargo flight was operating under the provisions of 14 *Code of Federal Regulations* (CFR) Part 121. At the time of the fire, the airplane was parked near the DHL loading facility and all of the cargo had been loaded.

D. **DETAILS OF THE INVESTIGATION**

1. Aircraft Configuration

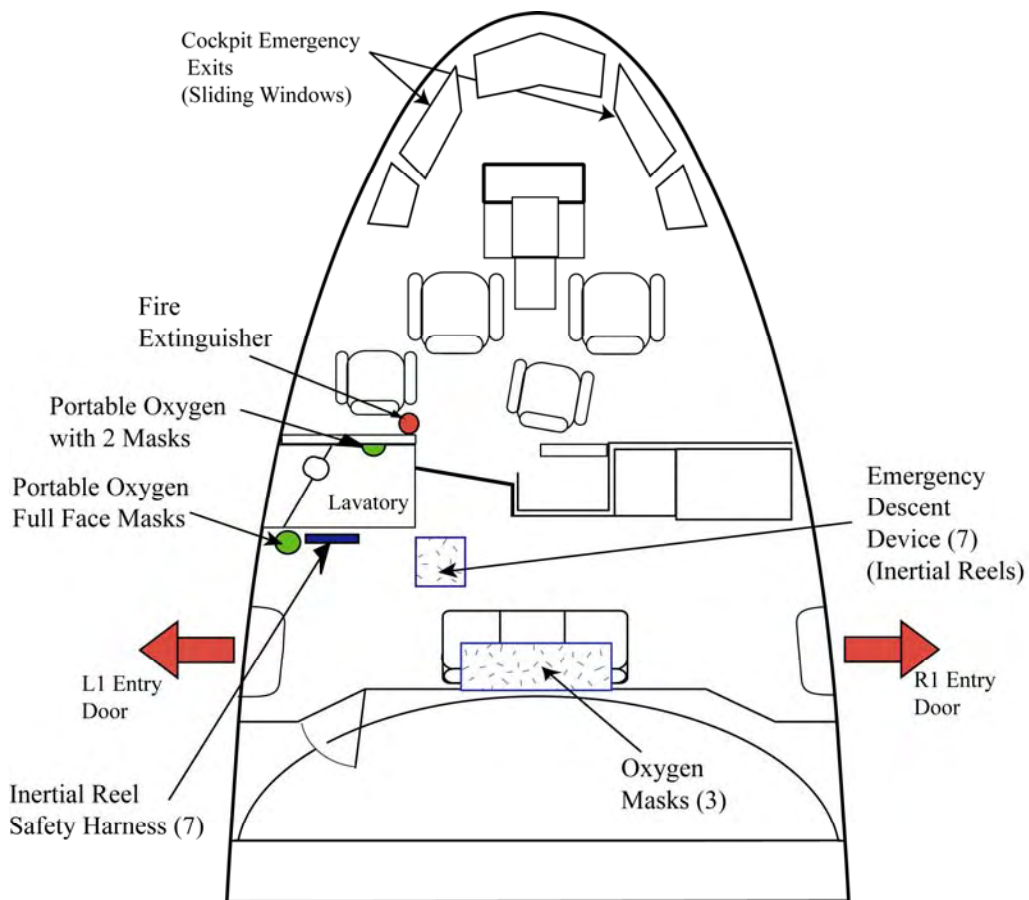
1.1. Cockpit and Supernumerary Compartment

The airplane's main deck was configured with a cockpit, a supernumerary compartment and the main deck cargo compartment. The cockpit contained 2 window exits with Boeing escape ropes. (See Photos #1 and #2 in Attachment 6) The supernumerary compartment contained an entry door (L1) on the left side of the fuselage and a service door (R1) on the right side of the fuselage. Neither door was equipped with an evacuation slide, however there were 7 emergency descent devices (inertial reels) located adjacent to the L1 entry door. All emergency exits had a white (contrasting color) band around the exits.

During normal operation the L1 and R1 doors open inward and upward to a position inside the fuselage and can be opened both internally and externally. Each door is guided by rollers inside the upper and side tracks. A counterbalance provides the force to allow the doors to be lifted to the open position. Both doors included an exterior handle mechanism which connected the exterior handle mechanism to the interior handle through the handle support. The exterior handle is lifted to unlock and unlatch the door. (See Attachment 1 for a description of door operation). Refer to Airworthiness Group Chairman's Factual Report for a description of damage to the door systems.

The cockpit contained a captain, first officer and two observer's seats, and there were three seats in the supernumerary compartment with oxygen masks located adjacent to each seat. There was one portable oxygen bottle with a full face mask near the L1 door and a second portable oxygen bottle was located on the fuselage inside the lavatory (located forward of the L1 door). See Figure 1 for a diagram of exits and emergency equipment location.

FIGURE 1 (Not to scale)



ABX Air Boeing 767 Cockpit and Forward Cabin Diagram

1.2. Cargo Compartments

There were 2 lower-deck cargo compartments located on the right side of the airplane; one forward and one aft of the wing. There was a lower-deck cargo compartment located aft of the wing on the left side of the airplane.

The main deck cargo compartment door was located forward of the wing on the left side of the fuselage.

2. Crew Information

There was a captain and first officer on board flight 1611. See Operations Group Chairman Factual Report for flight crew information.

3. Passengers

None

4. Medical and Pathological

4.1 Injury Table

	Cockpit Crew		Passengers	Others	Total
Fatal	0		0	0	0
Serious	0		0	0	0
Minor	0		0	0	0
None	2		0	0	2
Total	2		0	0	2

5. Emergency Response

5.1 SFO Aircraft Rescue and Firefighting Responding Vehicles

VEHICLE No.	Type of Vehicle	No. of Firefighters	Agent Capacity	Agent Used	Water Capacity	Water Used	Infrared Capability
Engine 46 (R 46)	Spartan Structural Engine	3			500 gallons	2,000 gallons from hydrant	Portable thermal imager
Engine 56 (R 56)	Pierce Structural Engine	3	500 gal. dry chemical	None		1,000 gallons	
Truck 44A (R44A)	Metz 120 foot aerial ladder with pump	2			300 gallons	None	None

VEHICLE No.	Type of Vehicle	No. of Firefighters	Agent Capacity	Agent Used	Water Capacity	Water Used	Infrared Capability
ARFF 49 with penetrating nozzle (R49)	Oshkosh	2	400 gallons of AFFF	130 gallons	3,000 gallons	3,000 gallons	Inoperative infrared unit
Rescue 37 (R37)	Oshkosh	3	400 gallons of AFFF	50	1,500 gallons	500 gallons	None
Rescue 41 (R41)	Oshkosh	2	400 gallons of AFFF	None	1,500 gallons	500 gallons	None
Rescue 90 (R90)	Oshkosh	2	400 gallons of AFFF	75 gallons	3,000 gallons	1,500 gallons	Permanent-ly mounted FLIR camera
Medic 91 (R91)		2	N/A	N/A	N/A	N/A	N/A
Medic 93 (R93)		2	N/A	N/A	N/A	N/A	N/A
Command (R66)		1	N/A	N/A	N/A	N/A	N/A

Twenty two San Francisco Fire Department firefighters and officers responded to the accident from three fire houses on the airport. (See Figure 2 for Fire House and accident locations) Another firefighter responded to the staging area to become “Staging Manager for the Mutual Aid units.”

Mutual Aid firefighters from the City of San Francisco and San Mateo County responded to the North Field staging area¹. The San Francisco Fire Department sent 3 Engines, 1 truck, a battalion chief, a division chief, one heavy rescue squad, two rescue captains (medical) and one medical unit. San Mateo County sent 4 engines, two trucks, two battalion chiefs, and one Quint (combination engine and truck).

5.2 SFFD ARFF Training and Drills

SFFD conducts three “Red Cap” drills every month. Red Cap drills are unannounced drills conducted at locations throughout the airport operations area. The drills include separate ARFF responses to a simulated airplane fire, positioning of ARFF and support vehicles, leading lines, finding water supplies and positioning ladders.

¹ The primary Staging Area is in front of Station 2, however, because of the location of the accident, mutual aid responders were held at the Northfield Checkpoint.

[illegible]

14 CFR 139.325 requires the holders of Class 1 Operating Certificates to hold a full scale airport emergency plan exercise at least once every 36 months. SFO conducts a full scale emergency plan exercise once a year. The 2006 and 2007 exercises involved an airplane accident involving approximately 130 passengers. ARFF triaged, treated and arranged transport for about 30 patients. Helicopters, mutual aid units, and other airport agencies participated in these drills. The 2008 exercise scenario was a hostage situation involving approximately 130 passengers, San Francisco Police Department, and the FBI. ARFF triaged, evacuated, and treated “injured” passengers. .

A review of August, September and October, 2008 monthly training reports listed Red Cap drills and “Captain’s Multi-Company Monthly Drills.” The captain’s drills included the following subjects:

- Critique of video of DHL fire
- Jet Skis – start up procedures, launching
- Seaplane Harbor – rescue utilizing jet skis
- Airbags – simulated rescue of a trapped person
- Turret Operations – distance and height
- Airboat launch procedures at Seaplane Harbor
- Terminal 2 construction area orientation
- Traction splint and shock treatment
- Portable extinguishers
- Airboat exercise, testing perimeter security
- Hoseleads and supplies utilizing Engine 46, Engine 56 and medic Unit
- Hoseleads and supplies utilizing all airport units
- Simulated water rescue utilizing fireboat and other airport units
- Simulated aircraft into a building utilizing ARFF Units and all Structural Units
- Simulated wheel and engine fire, tactical channels, and coordinates

5.3. SFO ARFF Interviews

Dave Bruzzone
Firefighter
Rescue 49
Station 1

He had 27 years as a firefighter and 20 years at SFO.

He heard the report of an Alert 2 or Alert 3 with reports of smoke at Plot 10 or Plot 11.

He was the driver on Rescue 49, which was the first “rig” on scene. He positioned at the 1 O’clock position (at the airplane’s nose). The other firefighter in his truck exited.

He observed thick dark smoke coming out of the right cockpit window. He sprayed the airplane with a short burst but noted that there were firefighters on a staircase. He tried to push the penetrating nozzle through the right cockpit window as firefighters were setting up for an interior attack. The spray formed a “Christmas tree pattern”. He did not know that the spray had not gone in the airplane until other firefighters told him.

An unidentified firefighter directed him to reposition to the rear of the airplane. He drove to where Rescue 90 was located and Rescue 90 returned to the front of airplane. Once positioned at rear of aircraft, he observed smoke blowing toward the rear and he observed smoke coming out of APU exhaust.

He could not tell where the fire was located in the airplane until the fire burned through the fuselage. He heard the other rigs “rev up” and knew that the other rigs were spraying the fire.

He drove back around the left wing and positioned Rescue 49 forward of left engine. Firefighter Faulkner got in the R49 and told him to penetrate the airplane from above. Firefighter Faulkner assisted him by helping guide and position the boom. He put about a half of tank of foam and water into the interior. He thinks that he pierced the top of the fuselage and applied foam and that was what put the fire out

Rescue 49 had a nozzle on the boom that could deliver a volume of a 1000 gallons per minute (GPM); it had a penetrating nozzle (250 gallons of agent per minute), a wand for dry chemical, and a video camera that was inoperative because there was fog between the glass and the lens. He stated that the maintenance shop had looked at the camera about 1 ½ months ago but was not able to repair it. The operator of the boom can “fine tune” the boom’s movements vertically up and down. Because of the boom’s weight, it bounces while being maneuvered. The penetrating wand is an articulating wand. The penetrating tip operates best when it goes straight into the fuselage (not hitting the fuselage with a glancing blow). He used the penetrating nozzle but did not use the volume nozzle. Rescue 49 did not have a properly functioning infrared unit.

He had used the penetrating tip during practice sessions on cars and vans and stated that the operator needed to be careful not to snap it off. Although it had not happened to him, he knew that other firefighters had hit the rib instead of the fuselage during practice sessions. He thought it was a good device but needed “lots of practice.”

Rescue 49 was about 14 years old, and when it was delivered the factory representative came and trained all 3 watches. He practices using the penetrating nozzle when he checks it out on his shift.

Following his interview, Firefighter Bruzzone showed the Survival Factors Group Rescue 49 and its penetrating nozzle. The controls are located to the right of the steering nozzle. The boom is positioned visually and is operated by an 8-position joy stick. The Survival Factors Group reviewed the penetrating nozzle’s operation and noted limited driver visibility because of the following reasons: 1) windshield water sprayed to keep windshield clean obscured the driver’s view, 2) the overhead view port (Plexiglas window) is crazed and limited the angle of view, 3) the window frame (approximately 6” wide that runs above the windshield and below the Plexiglas) appeared to block key visibility areas.

Interview: Eugene Adams
Firefighter
Rescue 49 (Rider)
Station 1

He had been a firefighter for 14 years and has been stationed at SFO for 7 years.

He heard the Alert and indicated that the tower communication was confusing because they called it both Alert 2 and Alert 3. He started Rescue 49 and he “assumed an Alert 3 and we took off.” Rescue 49 was the first on scene and they gave the “initial report and first size up. They positioned Rescue 49 at the airplane’s nose and they did not see anyone around the airplane. He thought he saw a rope down on one side of the airplane and he saw stairs at the other cockpit window. The stairs at the window seemed a little “crazy” to him. When they arrived on scene, they did not know the condition of the airplane i.e., they did not know if the airplane was parked or getting ready to leave.

He grabbed a nozzle off of Engine 56 and he joined Engine 56’s crew and put his air pack on. He was the first firefighter up the stairway and he asked for a line to be passed up. He entered the cockpit through the window because he had to make sure that no one was in the cockpit and he thought that if the fire was small they could put it out. They handed him a charged line. He could not see anything because of the smoke but he got a flashlight and he felt all around the cockpit to make sure that the crew was out. He let Temporary Lieutenant Sweeney [standing on stairs] know that the cockpit was clear. He knew that there were lights on in the cockpit because he could see dull lights glowing. He described the cockpit as, “Kind of crazy in there” He entered the cockpit hands and head first and equipment that was hanging on him came off. He lost his radio right away when he entered the cockpit.

He knew where the cockpit door was located and he went right to it. He got down low and opened the door. All he could see was a wall of fire and he immediately closed the door. He stated that he “would have thought the whole aircraft was on fire” when he opened the door. Lt. Sweeney asked him, “Did you shoot the line in there?” and he replied, “Hell no, I shut the door and got out.” The line did go off while maneuvering around the cockpit and he sprayed some water in the cockpit. Temporary Lieutenant Sweeney ordered him out and he told Temporary Lieutenant Sweeney that they needed to find better access to the fire. He came out the window and “everyone” went down the stairs. He estimated that he was in the cockpit for about a minute.

A “guy” on the ground moved the stairs and they went up the stairs and they tried to open the L1 boarding door. “Me and Sweeney attempted to move the door” and the door moved about 6 inches. The fire had vented thru the roof. They were able to “push in” the door about 3 inches and he saw fire around the door. He used the line to spray water however it was not very effective. Firefighters from Engine 56 and Rescue 44 were also on the stairs.

He came down the stairs and tried to find Firefighter Bruzzone, the driver of Rescue 49. He found him near the tail and told Firefighter Bruzzone that they needed the penetrating nozzle to fight the fire. Firefighter Adams asked Firefighter Jones to move Rescue 90 from its 9 O'clock position. He told Rescue 49 that they were moving Rescue 90 so that he could reposition Rescue 49.

Rescue 49 moved to the front of the airplane. Firefighter Adams re-joined firefighters from Engine 56 and Rescue 44 on the stairs while Rescue 49 used the penetrating nozzle to put the fire out. Firefighter Adams believed that Rescue 49's penetrating nozzle was what put the fire out and that the other "rigs" were not effective in fighting an interior fire.

He spoke to Rescue 49's driver and told him that he had put the fire out and asked him "how's your water." Rescue 49 had about ½ a tank and he told Rescue 49 that he would find water for him. He knew that the maintenance hanger had a good supply of water near the paint booth area, however it was behind a locked gate. Firefighter Adams got a 3 inch line off of Engine 56 and got help from 2 guys (Airport Security and SFPD) to pull the line. (He asked for help because there were not enough people on the scene.) He took off his air pack and his jacket and jumped a fence at the Maintenance hangar to reach the water supply. Since he did not have his radio, he instructed one of his helpers to make sure that the line was hooked up to the engine. The helper came back and said it was okay and then he charged the line.

His original intent was to provide water for Engine 56 to fill Rescue 49, but since that was already taken care of, they ended up with two supply lines to the area. Firefighter Brown (Driver on 56) changed Firefighter Adams' Scott Air pack.

He returned to the airplane and they used the XL98 to enlarge the hole on the side of the fuselage. (He had noticed bubbling on the fuselage in this area when he had been on the stairs earlier) He and Firefighter Yee brought a line in through the hole in the side of the airplane and sprayed the area. He found his radio (which was no longer operable). He noted that the penetrating nozzle was in the fuselage skin when he was mopping up the interior. He observed that the fire had stayed in the supernumerary area. He noted the damage to the doors and explained to Temporary Lieutenant. Sweeney why they had not been able to open the doors. Temporary Lieutenant. Sweeney came in and ordered everyone out because he still was not happy with the situation – they needed further access to the airplane.

Firefighter Adams did not work on lower cargo doors but he worked on opening the main cargo door (MCD). About an hour after the fire was put out, the ground crew told them not to open the MCD because they were afraid of the airplane's structural stability. They ceased trying to open the door. He noted that the MCD vents were open when they were trying to open the door.

He worked with other firefighters to clean up excess lines and returned to his fire station. He cleaned up and returned to the scene for fire watch.

Firefighter Adams offered comments on the use of Rescue 49's penetrating nozzle. Although he was assigned to 49, when he first arrived on scene he became part of Engine 56 during the initial firefighting tasks. He thought that Rescue 49 really needs a spotter for the penetrating operations. He said "That was my job and I didn't do that." In his opinion, the only way to put a cargo jet fire out was with the penetrating nozzle. There was limited access to the interior because of the cargo configuration.

Firefighter Adams was qualified to operate the penetrating nozzle and has practiced penetrating a van. He had not been on a cargo airplane during training, but he had been on a passenger airplane.

He felt "like I was out of the loop without a radio." There was a lot of face to face communication and things worked out okay because "we were all on the same page" and they "agreed on a plan of action and took it."

In hindsight, he did not think that he would enter the cockpit again. However he did not know if anyone was in there and he initially thought he could get the fire out.

Jim Jenkins, Acting Lieutenant
Station 2
Rescue 37

He has been a firefighter for 30 years and at SFO for 19 years

When he arrived on scene he saw fire and smoke through the right cockpit window. Stations 1 and 3 were already on scene and he was briefed by a firefighter. His first concerns were life safety and fire suppression. A firefighter told him that the pilots had evacuated safely and that there was fire behind the bulkhead. The "big rigs" had water streams into the airplane and he told them to cease the stream because of the firefighters with lines on the stairs. There was a hose line into the cockpit through the left window. He told R41 to stop "shooting."

Capt. Pinkard was the IC and Lt. Jenkins became Operations. His duties were to oversee and report to the command post about needs, tasks, equipment and personnel. When Captain Sullivan assumed command, Capt. Pinkard became Operations and he became the interior group supervisor. He observed firefighters cutting a hole between the cockpit window and the left forward door. He entered through the hole and reported that it was safe. Firefighters entered the airplane with a hand line through the hole after the fire was knocked down.

He spoke with a DHL mechanic about problems opening the cargo doors and he worked off "scaffolding" to try to open cargo doors. Firefighters got the lower aft cargo doors open and they were able to assess that there was no fire extension aft of the wings.

He noted that R49 was initially at the front of the airplane. He did not tell R49, or anyone, to move. When R49 left, R41 took its place at the front.

He asked the pilot if he had any hazardous materials on the airplane and the pilot reported that he did not know.

John Faulkner
Firefighter
Station 2
Rescue 37

He has been a firefighter for 27.5 years and has been at SFO for 20 years.

There were 3 people on R 37; himself, an officer who became “Operations,” and a driver.

He heard an Alert³ tone and thought it was a test. It was an Alert 3 and it was the first time he had heard an Alert 3. When they arrived at the accident airplane Rescue 49 was in the “1 O’clock position” and was shooting water with its penetrating nozzle into the right cockpit window. He stated that R49 eventually moved from that position.

He exited Rescue 37 and saw firefighters on stairs and indicated to others not to “shoot” because firefighters were going for an interior attack.

He saw a “company guy” (wearing a blue or gray jacket) who was trying to help get the boarding door open.

After fuselage burn-through he saw R49 “come in again” and he jumped into Rescue 49 when it was in front of the left wing. He told the driver to put the boom up and drop the nozzle down into the burn-through hole. He thought that the penetrating nozzle almost got into the hole. (He had been trained on Rescue 49 about 13 years ago.)

The “company guy” (that had tried to open the boarding door) said that the firefighters could enter through a hatch under the airplane. They got the hatch open and he used a short ladder while 3 or 4 guys pushed him up into a confined space. From the confined space he tried to open a hatch in the floor above his head. He estimated that he worked on the hatch for about 10 minutes before he could get it open. When he released the hatch he held it at an angle so that debris would fall away from him. A lot of debris fell down. He threw the hatch down into the EE bay

He put a line through the hatch and sprayed into the cabin. Someone yelled that they were getting hit and he turned it off. Because he did not see flames and there was not very much heat he thought that the fire was “pretty much out.”

He entered the airplane’s cabin area and observed wiring “all over the place,” charred black debris, and burned plastics. He also saw a 5-6 inch hole in the floor near the hatch that he

³ SFO’s Emergency Procedures Manual defines “Alerts” as a term “used by the FAA Tower to report aircraft emergencies” and an Alert 3 directs “rescue and fire fighting equipment go directly to the incident scene.”

had opened. Because of what he saw in the cabin, he suggested that Acting Lieutenant Jenkins call “Fire Investigations.”

Michael Jones
Firefighter
Rescue 90
Station 3

He heard an Alert 3 and determined that the location of the event was Plot 12. He heard over the radio that “Ground” had cleared the way for all emergency traffic and held traffic so they could proceed to the accident site. He was the driver and his vehicle was second-to-last on the scene and he observed heavy, heavy black smoke coming out of every opening in the airplane.

They approached the plane from the 11 O’clock. R37 was next to R46 and R49 went around to the back of the airplane. He saw firefighters on a set of 2-story stairs next to the airplane.

He used the roof turret for about 2 minutes to spray the flames visible at the airplane’s crown. He wanted to keep the airplane cool and knock down flames. He did not know the amount of fuel onboard the airplane. The Operations officer told him to cut the foam and he observed R49 come back around the airplane.

He had half a tank of water left and was told to go refill water. He refilled Rescue 90 with water.

There was a lot of radio traffic and every unit had its lights on and the area was “pretty well lit.”

He had received aircraft familiarization for cargo aircraft during his training.

Michelle Grindstaff
Firefighter
Rescue 90 (rider)
Station 3

She has been a firefighter for 14.5 years and at SFO for 9 years.

She heard Alert 2 and then Alert 3 with a report of smoke in the cockpit. Initially they could not find plot 11 on the map. As they approached the airplane, she saw a lot of smoke coming out cracks and a vent on top of the fuselage.

R90 was initially positioned at the aft right of the airplane. When they arrived on scene, it was very congested and they went around left wing tip to get to the back. They had to squeeze between an engine and a truck to get to their initial position at the aft right of the airplane. She exited Rescue 90 and was on foot. Rescue 90 used its infrared and did not see heat signature at the rear.

Rescue 90 returned to the front left, abeam of the L1 exit. Both Rescue 90 and Rescue 37 used their roof turrets to spray the airplane when flames came out. Rescue 90 was directed to cease spraying to protect the people on the crew stairs.

Engine 46 asked where a hydrant was located and she walked the perimeter (from forward left along area outside of left wing, behind tail, up the right side, and along a chain link fence near post office building) to find a hydrant. The hydrant was not identifiable from the airfield side because it was behind a fence however she eventually located the hydrant.

After the fire was knocked down they tried to figure out how to open the lower cargo hold. A mechanic came over to them and they opened the lower cargo hold.

Harry Pinkard, Lt. (Acting Captain)
Station 3
Rescue 66

He has been a firefighter for 29 years, 8 months. He has been at SFO since Sept. 2007.

While en route he “Struck 101 and 103” (called for mutual aid from San Francisco and San Mateo County) and he contacted Operations. Rescue 91 was sent to the staging area to meet mutual aid responders.

He was the initial Incident Commander (IC) and established a command post 300-400 feet from the aircraft at about the 2 o’clock position. As IC he wore a red vest that said “Incident Commander.”

When he arrived on scene he observed heavy dark smoke and flames at the top of the airplane. He noted that R56 was on scene with a “handheld ready line” deployed through the cockpit window and R49’s piercing tool was placed into a hole in the airplane. He saw that the rope was out of the first officer’s window and a “scaffold” was pushed up against the airplane.

He saw flames through the top of the airplane and saw R90 spray the top of the fuselage with foam. When the flames were suppressed, Operations “called off 90.”

The Airport Duty Manager was at the command post and asked him if they needed to evacuate the surrounding building and the IC agreed. Airport Operations took care of the evacuation of the buildings. The San Francisco Fire Department (SFFD) and San Mateo County mutual aid companies were held at the North Field check point because they did not need them.

When Captain Sullivan arrived on scene and assumed the position of Incident Commander, Captain Pinkard became “Operations” and went to the airplane.

After the fire was under control, Paramedic Peter Leonard had trouble getting a cargo door open. They tried to open the cargo door and then called communications. A company mechanic came to the airplane and opened the rear cargo door. Although they wanted to get the cargo out of the airplane, even the mechanic could not get the main cargo door open.

There were no major communication problems. He spoke to the pilot and the pilot told him that the main cargo door operated electrically. The pilot also told him that there were only 2 people onboard and both were off. “Dave” from DHL told him there were no hazardous materials onboard but there was dry ice onboard the airplane.

The L1 door was open a small amount and firefighters used an “XL 98” multipurpose saw on the side of the fuselage, forward of the L1 door, to gain entry into the cabin.

He had not been on a cargo airplane as part of aircraft familiarization training

Ellen Stein

Firefighter working as a temporary Lieutenant

Engine 46

Station 3

This was her first day as an officer at the airport. She was thinking about obtaining a water supply on the way to the site. They were the “second unit in” and she needed to look for a hydrant.

She saw R56 with a line up the stairs and in the cockpit window but it did not appear very effective. They laid out a second line from R56 and it was used after the stairs were moved.

She went up the stairs and tried to open L1 door after temporary Lieutenant Sweeney had tried it but they were not able to get the door open. She shot water around the gaps at L1 door mostly around top and sides, but not the underneath.

The big rigs were hitting the fire with foam but “big spray was not doing any good.” After a hole burned through the fuselage, the piercing nozzle put the fire out.

She saw a small hole (about 1’by 2’) forward of the L1 door. She used a “Chicago Door Opener”⁴ and an axe to widen the hole, and took off her Scott bottle and squeezed through the opening. She replaced her Scott bottle after she entered the airplane. She tried to open both 1L and 1R doors but was not able to open them. It was still smoldering inside.

She exited the airplane and went back to E46. Her driver found a hydrant at the Post office building and cut a hole in the fence to get access to the hydrant. It was a long lead line from E46 to the hydrant (about 500 feet)

⁴ A forcible entry tool used to pry metal or wood.

David Nonomura
Firefighter,
Engine 46
Station 3

He had been a firefighter for 10 years and at SFO for 2 years.

He heard the Alert and they responded to the airplane and positioned Engine 46 at the 11 o'clock position behind Engine 56

He was ordered to "lead a ready line" from Engine 56 to the area of the L1 door.

Temporary Lieutenant Stein ordered him to find a supply source of water. He looked for a hydrant and found one at the "Shops area" but in the meantime someone else had already accessed a hydrant. When water was supplied to Engine 46, the driver charged the second line.

He went up crew stairs with other firefighters

He saw R 49 move along the left side of aircraft. He saw the penetrating nozzle positioned at the roof and it supplied agent through the hole at the top of the fuselage. It put the "fire out for the most part" although there was still some smoldering.

He went down to the E/E compartment and the E/E hatch was open and a firefighter was half way into the compartment. He, and two other firefighters and a company employee helped the firefighter get into the E/E compartment. He got a ready line into the E/E compartment (he thought the line came off R37 or possibly R56) and fed it up to Firefighter Faulkner.

Engine 46 left the scene when it was dispatched to another call, but it was a false alarm and they returned quickly.

After the fire was extinguished he picked up hoses.

He had had a little bit of exterior familiarization training on cargo aircraft but had not been inside a cargo airplane.

Clyde Watarai
Firefighter
Aerial Unit 44A (R44A)
Station 1

He has been a firefighter for 10 years and at SFO for 2+ years.

He was the rider on R44A and Jimmy Yee was the driver. R44A is an aerial unit.

When they arrived R49 was at the 12 o'clock position and firefighters were taking a hose up the stairs and through the cockpit. He was right behind the firefighter who entered the cockpit. Between the 2nd and 3rd trip up the stairs, a DHL employee used a tug to move the stairs to the L1 door.

After the firefighter exited the cockpit and the stairs were moved, he laddered the left wing to try to get an exit open. He saw a sign on the exit in red letters that said "NON OPERABLE". He pressed a button on the hatch and nothing happened

When the fire vented through the top of the fuselage he asked Temporary Lieutenant Sweeney if he wanted the "ladder pipe" set up, and Temporary Lieutenant Sweeney said no. He talked to Temporary Lieutenant Sweeney and Acting Lieutenant Jenkins who told him that Rescue 49 was moving from the 7 o'clock position. He repositioned Aerial Unit 44A to the 11 O'clock position.

He worked on opening cargo doors. It took about 20 minutes to open the right rear cargo door with a ratchet. He tried to open the main cargo door (MCD) but was not able to open it. He was then told not to do anything with the main cargo door.

He was at the EE bay when Jenkins told him to get the XL 98 (multipurpose saw). He got an XL 98 and went back up the stairs and an officer told him to widen the cut in the fuselage near the L1 door. The saw worked easily and he opened the hole about 6" wider.

Most of his communication with Temporary Lieutenant Sweeney was face to face.

He had received classroom and hands-on aircraft familiarization but not cargo aircraft familiarization.

Jim Sweeney
Acting Lieutenant
Engine 56
Station 1

He had been a firefighter for 29 years and at SFO for 10 years.

He heard an alert for an airplane on fire at Plot 10 or Plot 11. When they arrived on the scene they thought that they could put the fire out if they could get access to it. It was clear to them that the fire was not located in the cockpit.

He heard Rescue 66 state "alert 3, strike the 101 and 303." Rescue 49 arrived at the accident site first and made the initial report of an airplane with heavy smoke coming from the cockpit. Engine 56 arrived after Rescue 49 and he directed the driver to pull up-wind of the airplane on the captain's side and back into the 11 o'clock position. He observed heavy black smoke pumping out of both the first officer and captain's open windows. He saw that stairs were placed up to the Captain's window and there was a gap between the stairs and the airplane.

He saw a yellow rope hanging from the first officer's window. He assumed the crew was out of the airplane because of the "open aircraft" but they were not sure until they searched. At that point it was unclear if there were any other people on the airplane.

R 49 was located at the 12 o'clock position and "sprayed the fire through the front window."

He instructed Firefighter Carter to "get your Scotts" and "lead a ready line" to the airplane. Firefighter Adams was the rider of R49 and was ahead of him on the stairs and assisted with the same line. They led a hose up the staircase and Firefighter Adams went through the captain's window and they fed a line to him. Firefighter Carter started to go through the window but stated "I can't get through the window." Temporary Lieutenant Sweeney lost view of Firefighter Adams but thought that he had opened the door and "hit the line." Firefighter Adams came back to the window and said something. It looked like there was not enough room to work and Temporary Lieutenant Sweeney ordered him out because he did not feel it was safe for him to be in there unless someone was with him. Temporary Lieutenant Sweeney said that Firefighter Adams stated that there was a "wall of fire".

After Firefighter Adams came out of the cockpit, they backed the hose down the stairs and repositioned the stairs to the L1 door. They lifted the door handle and attempted to move the door up but the door only went up about 6 inches. They attempted to spray water on the fire through the openings around the door. There was a DHL employee on the stairs when they tried to open the door.

When he observed burn-through from the top of the fuselage he told people to get off the stairs. He wanted them off the stairs so the ARFF units could "hit" the airplane and it would not have been safe for the people on the stairs when large amounts of water hit the airplane. R49 came from behind the aircraft and he directed them to the 9 o'clock position

He helped direct Rescue 49 and R49 used the penetrating nozzle and knocked the fire down. Several firefighters went back up the stairs and attempted to open the door again using the biggest guys.

The fuselage between the cockpit window and the L1 door had an area of burn-through. Temporary Lieutenant Sweeney stated that there was fire in the lavatory and he extinguished the fire with a small line. He said the lavatory fire was located forward of the fuselage crown burn-through area and was about 6 feet above the main deck.

Four or five firefighters used axes and "Chicago door openers" to expand the gap. Because of her small size, Temporary Lieutenant Stein entered the airplane first. There was a hose available on the stairs and Firefighters Yee and Adams also entered through the hole with 1 ¾ inch line. Although the fire was out, they used the line to spray down the area. Temporary Lieutenant Sweeney noted that the ceiling was in disarray and there was a hole burned in the "decking" in the floor. It was a circular hole 2-3 feet in diameter 2-3 feet from the L1 door. Temporary Lieutenant Sweeney climbed up on rubble to look

at the cargo area and did not see anything burning in the cargo area. He saw aluminum containers and debris from the ceiling.

He heard that someone had tried to open the R1 door but could not open it. DHL ground personnel tried to assist in opening cargo and boarding doors

Someone asked him to search for the log and manifest. He and Firefighter Yee looked for the items and retrieved a carrying case that measured about 1'X 2', a clipboard with some papers, and some folders and they took them to the command post.

He was asked to help open one of the lower cargo doors. A company employee tried to help them open the door but they were unable to get the door open.

When asked about communications problems, he described the area as extremely loud because the ARFF units were loud. He indicated that a couple of radios were broken and Firefighter Adams lost his radio in the airplane. He said that there was "Overwhelming noise" but the firefighters were able to communicate face to face and he was able to communicate with Operations.

He was asked if SFO ARFF were trained that pilots may carry guns and he stated that they knew that pilots could carry guns. He pointed out that he had been to residential fires in which ammunition was involved.

He had classroom and hands-on aircraft familiarization on a few cargo airplanes. ARFF used both foam and water.

Ted Carter
Firefighter
Engine 56 (rider)
Station: 1

He had been a firefighter for 21 years and had been at SFO for 7 years.

They were alerted to an Alert 1 or 2 that changed to an Alert 3 located by the China Airlines cargo

He was the "Rider" on the engine. Temporary Lieutenant Sweeney and Firefighter Brown were also on Engine 56. When they arrived on scene, he went to back of Engine 56 and pulled 200 feet of "ready line."

He noted that "stairs" were up to airplane near the cockpit window and there was a sizeable gap between the stairs and the airplane. He thought that they had to be careful about falling off the stairs. He and Firefighter Adams went up the stairs and Firefighter Adams went in to the cockpit and came back out. After Firefighter Adams exited the airplane, they sprayed foam and water into the cockpit area through the cockpit window.

They were instructed to back down the stairs so that the “big rigs” could have a chance to extinguish the fire.

Firefighter Adams attempted to get the L1 door open but was unable to open it. He was not sure how the stairs were moved, but after they were repositioned from the cockpit window to the L1 door, he came back up the stairs and tried to open the door. Fuselage burn-through “happened before the stairs were moved.” They attempted to lift the door but were only able to raise the door about 5-6 inches. They had a line and sprayed around the L1 door but it did not appear to have an effect. The attempts to open the L1 door occurred before the penetrating nozzle was used on the top of the airplane, and after it entered thru the top of the airplane. He stated that Rescue 49 dropped the piercing nozzle in and “pretty much did the job” of extinguishing the fire.

He was asked when they determined that there were no crewmembers onboard. He said that when he did not see anyone in the cockpit seat he made the assumption that no one else was on board.

At one point he helped firefighters hold a ladder so two firefighters could come down off the wing.

Firefighter Carter had been assigned to Rescue 49 for the last 6 months or since Rescue 49 has been back in service. (Firefighter Carter was normally assigned to R49 but was working a “trade” for another firefighter.) Firefighter Carter was asked about his training with the penetrating nozzle. He stated that he had not had much training on the unit and had not penetrated any metal with it. However he checks out the unit for each shift which allows him to have a “feel” for the unit’s motion. The daily check involved using the full range of motion including raising the unit and moving it left, right, tilt and straight out.

He stated that their recent training drills (Red Cap Exercises) had emphasized improved response times. He had participated in some drills involving cargo aircraft and had been through a cargo airplane and knew about door access.

Peter Leonard
Firefighter/Paramedic
Rescue 93
Station 3

Prior to becoming a firefighter/paramedic he had been a medic on an ambulance operated by the Department of Public Health (DPH). He had been with SFFD for 5 years and had been assigned to SFO for 4+ years.

Rescue 93, staffed by Firefighter/Paramedic Leonard and Firefighter Baliao, was the first vehicle to arrive on scene from Station 3. They parked Rescue 93 “out of the way” near the vehicle maintenance facility. He donned a Scott mask and went to the airplane. He observed stairs at the cockpit window and a ready line in the cockpit window. When he

observed a firefighter inside the airplane he recognized that they needed ventilation and access to the fire. He felt that it was fairly urgent to open the plane up for ventilation. His first concern was the firefighter inside the cockpit.

He placed a 24 foot Ladder at the L1 and he had to move the ladder to reposition it so that he could try to open the door. Firefighters yelled, "Wait until we have a line ready." He waited about 30 seconds and then lifted the door latch, which was in the closed/stowed position, with his left hand. It took "force" to lift the latch and the door "popped in" about 6 inches and there was fire all around the door. He used his right hand to try to push the door up. He said that even in full turnout gear, it was really hot. Someone shot the ready line which cooled the door but there was no way he was going to try to lift the door by putting his hand under the door because of the flames around the door. He was not able to open the door and he came down the ladder. He said that the doors were not designed to be opened while standing on ladders. He left the door "slightly vented."

When he came down from the ladder he moved around the airplane trying to find a way to get in. The left wing was already laddered. He did not go up the left wing but he said that he saw signs that indicated the doors/hatches were not operational.

He went around the airplane to see if could find other ways to vent. He observed a small "cargo door" at the aft left of the airplane. He tried using a ladder, but he could not reach the door. He went to the right side of airplane and saw stairs by the fence line. He dragged a set of maintenance steps back to the bulk door. He opened the bulk cargo door and noted good visibility in compartment. He knew by the shape of the cargo door handle how to open the door. He removed his air pack because the compartment looked clear but put the mask back on when he realized that there was smoke in the compartment.

He went to the right side of airplane and saw several doors that were labeled inoperative. He put a ladder up to the right wing and climbed onto the wing. He saw the deactivated overwing exit and joked that it had a "waste of time sign" indicating that it was inoperable. He climbed back down the ladder. At some point after the fire was knocked down he went up on the scissors lift with the mechanic and attempted to open the R1 door.

The fire was "knocked down" by Rescue 49 and there was concern that "there was extension of the fire that could reach the fuel." Captain Pinkard wanted the all doors open and cargo removed. He was the first to ladder the lower right front cargo door. He read the door opening instructions and someone brought the right tool. It took a long time to find the tool but when they got the tool they were able to get the door open. The mechanic got the forward lower cargo door partly open. Someone else eventually got the door fully opened. They tried to open the main cargo door but realized the tools were not the same. The mechanic went to work on the main cargo door but they could not get it opened. The mechanic had trouble opening the main cargo door even though the "vents"

were open and the door locks were unlocked. The mechanic asked to go inside and see the locks. Firefighter/Paramedic Leonard escorted the mechanic inside the airplane.

Captain Ahern asked him to get the cargo manifest. He entered the airplane and looked for paperwork near the main cargo door. He found a grey pouch with strapping and he moved a few items around including an envelope. However, he did not find the cargo manifest. The pilots asked for their personal bags. He found a small suit case and passed it out.

Later, an investigator from SFFD's fire investigation group came to the airplane and he took her inside. He observed a large open hatch and another hole in the floor.

Although he did not have hands-on experience opening doors, he had frequently observed doors being opened when he went to aircraft medical calls. He paid attention to how those doors were opened from the outside and learned about some door opening mechanisms from his observations. He had not had specific cargo training but had cargo aircraft familiarization. He had opened a B747 door in training. He stated that he "would love to practice opening aircraft doors".

Dave Sullivan
Captain
Station 1

He was notified of the Alert 3 and arrived at SFO about 15 minutes later. He assumed Incident Command and Captain Harry Pinkard became the Operations Officer. The Airport Operations Duty Manager, the Mutual Aid Chiefs and the accident airplane's captain and first officer were at the Command Post when he arrived. The crew told him that he and the first officer were the only two occupants who were onboard the airplane. Captain Sullivan asked for the Hazardous Materials (Haz Mat) Manifest from 2 sources. He asked the Operations Officer to check on the airplane and he asked the Operations Duty Manager to ask the company. It was eventually provided by a DHL employee about 15 minutes after Captain Sullivan arrived at the Command Post. From the paperwork and verbal reassurances from the pilot he determined that there was no Haz Mat onboard, but he was told that there was some dry ice on the airplane.

The fire was out and he wanted all cargo doors opened in order to check for fire extension and he wanted all the firefighters accounted for. A paramedic checked the First Officer and he was transported to Peninsula Hospital for an additional check-up. The First Officer came back to the Command Post after he was checked at the hospital.

Captain Sullivan asked the Operations Duty Manager if NTSB had been notified and he was told yes. Captain Sullivan was asked if his tactics would have changed if declared Haz Mat was onboard the airplane. If Haz Mat had been onboard the airplane, Captain Sullivan would have requested a SFFD Haz Mat team to come to the airport from San Francisco.

5.4 Airport Operations

5.4.1 SFO Aircraft Incident Report

Enrique Enriquez completed an Aircraft Incident Report (See Attachment??). According to his report, Mr. Enriquez overhead the ABX Air flight 1611 crew notify “Ground ATC” about a fire in the cabin at about 2211. ATC notified communications who executed and “Alert 3” brigade. “M210 notified Ops.”

5.4.2. Airport Operations Interview

Dan D’Innocenti
Airport Duty Manager (ADM)

While he was en route to the accident site, he heard Airfield Safety personnel report over the radio that the pilot and co-pilot were out and there were no other people on board. When he arrived at the command post “everyone was there.” (Fire Department, Airfield Safety, pilots, 2 people from DHL and 1 person from ABX) He made contact with the Incident Commander. The Mobile Command Post arrived shortly after he arrived on scene.

The Airport Duty Manager’s job is to assist the IC and make sure that he gets everything he needs. They work as a team. He asked the IC if he wanted the surrounding buildings evacuated and the IC indicated that he wanted the buildings evacuated. The Airport Duty Manager ordered the evacuation of four buildings, DHL, US Mail, Airport Maintenance facility, and the Singapore Airlines cargo building.

The IC asked the ABX Air’s captain for a copy of the manifest. The captain did not have a copy but said that he had a phone number for ABX Headquarters. The ADM lent the captain his phone and he dialed the number and the ADM requested the manifest information. The person at ABX AIR said that she could fax him a copy and he gave her the fax number at the Emergency Operations Center and in the Mobile Command Post. She called him back to tell him she was still working on it and had to go to a different department. They did not get it from her, but Bijion Nagabi, a DHL supervisor, who had been at the command post returned with a clipboard and the IC reviewed the manifest with the DHL Supervisor.

When the fire was contained he asked permission from the IC to reopen the evacuated buildings and was granted permission. The IC told him that Fire Investigation was coming in and he coordinated with the IC to make sure that the Police Department was aware of that.

He ensured that the security fence was repaired where the FD had cut a hole to gain access to a hydrant. He kept the EOC up to date and briefed the airport’s Public Affairs officer. He asked the Police Department to patrol the area where the media trucks were positioned.

5.4.3. SFO Airport Communications

According to the FAA, ABX 1611 contacted SFO Ground Control. The contact began at “05:11:11 and ended at 05:11:33.” [GMT] The FAA reported the following information:

ABX1611: san Francisco ground san francisco ground abex sixteen eleven

GC2: abex sixteen eleven san francisco ground

ABX1611: yes sir we need ah ah cfr over here at spot eleven at cargo aircraft fire

GC2: abex sixteen eleven you're reporting aircraft fire

ABX1611: yes sir

GC2: ok we're gonna roll the trucks right now

The Airport Event Chronology (See Attachment 4) summarizes 6 channels of communications including communications by SFFD, Airport Operations and Airport Police. The times listed in the logs are not correlated with any other clocks. A brief summary of event comments is listed below:

22:12:27: Event created – Alert 3 A/C fire plot 10/11

22:13:40: Event comment: 2nd RP Jim Smith DHL

22:15:14: Event comment: R49 – SMK FROM A/C/ DHL A/C [Rescue 49 report smoke from DHL aircraft]

22:15:26 Event comment: 210, No injuries [Unit 210 reports “no injuries”]

22:15:30: Event comment: pilots are out

22:15:35: Event comment: R66 – Strike 101 & 303 [Request mutual aid from the City and County of San Francisco and from San Mateo County]

22:16:19: Event comment: heavy smoke, so flames

22:17:56: Event comment: M251, FD putting water in the cockpit

22:18:24: Event comment: EOC Activated [Emergency Operations Center was activated]

22:24:24: Event comment: R56 – trying to open DR of A/C to make entry

22:24:28: Event comment: 231, Flames showing on top of A/C

22:27:22: Event comment: Mobile Command on scene.

22:40:19: Event comment: Fire command/fire almost contained

22:41:04: Event comment: Contained at this time....white smoke

22:54:53: Event comment: R46 - firefighters inside the plane

22:58:03: Event comment: Fire CMND—Fire extinguished, no inj, fire under cntrl

22:58:48: Event comment: SFO CMND—Release 101 & 303 units/SFO fire units to remain on scn

23:05:25: Event comment: Fire CMND / req ETA for DHL reps

23:06:13: Event comment: M211 – DHL rep is at CMND post

23:12:57: Event comment: SFO CMND - mopping up stages, engines and rigs still on scn

01:07:42: Event comment: R66 – Put all companies in svc except R90/incident secure R90 has fire watch

6. Evacuation

The captain evacuated through the left cockpit window onto stairs. The first officer used the escape rope to exit the right cockpit window.

7. Other

Witnesses:

Dave Ramirez
Line Maintenance representative for ABX Air

He is an FAA licensed mechanic. He is based in Los Angeles but was on a temporary assigned to SFO and he was working his last flight before returning to Los Angeles. He and another mechanic (Chris) were waiting for the airplane to be towed. The other mechanic was in the maintenance van and he was standing under the APU and was not wearing ear protection. They were the only ABX Air mechanics on duty. DHL is in charge of all ramp activities; they provide tug drivers and wing walkers.

He heard a “controlled explosion” or a sound like an explosion under water, and he thought the sound came from the front of the airplane. Within seconds the APU shut down and he heard the IRU (Inertial Reference Unit) horns in the nose gear go off. He stood there for a minute or so trying to figure out what had happened. As he ran around the left wing some

DHL guys asked him what happened. By the time he got to the front of the airplane, the fire department was there.

When he ran around to the front of the airplane, both pilots were out of the airplane. He saw a rope out of the window on the first officer's side. He thought that a DHL employee had moved stairs back to the airplane near the left cockpit window. .

He called Mike Green, his supervisor, and told him about the explosion and fire. He did not call 911 because the firefighters were already there. If they had not been on scene the normal procedures would have been to call 911 and to fight the fire with a portable fire extinguisher if possible.

The police department and fire department pushed people back and he observed firefighters trying to put out the fire. Although he was initially instructed to move away from the airplane, someone came up to him and asked for his help. One of the firefighters came up to him and told him to get up there and "open the door." A firefighter asked him to move the stairs so that they could get the door up. There was a tug hooked up to it and he noted that the locks on the stairs were not down so he jumped on the tug and moved the stairs back toward the L1 door. He maneuvered forward, back, and forward for about 1 minute until he placed the stairs.

He was the first one up the stairs at L1 and he lifted the door control handle up but because he did not have gloves he did not try to raise the door manually. He told the firefighters to push it up and he estimated that it was opened about 12 inches and then dropped back down. He went back down the stairs and a firefighter in a metal suit told him to go back up the stairs. He did not go back up the stairs at L1.

He went around to the other side and got a scissor lift and placed it at R1 door. He and a fireman tried to open the R1 door. They got the door open about 8" and there were no flames visible around door. The bottom of the R1 door was warm and the R1 handle was hotter than the L1 handle. He came down to the ground.

He told a firefighter at the nose wheel that there was another way to enter the airplane and took them to the EE hatch. He opened the EE hatch and a rush of water hit him and knocked him down. "Opened easy and I got slammed with water." The firefighter stepped on his back and another firefighter's back to get into the EE compartment. The firefighter went in first and when the firefighter got in, Mr. Ramirez stood on top of a 3 foot ladder and positioned the upper half of his body into the compartment. The compartment was not hot or on fire. He used his flashlight to point to a handle and told the firefighter to turn the handle on the upper hatch of the EE compartment. When the hatch opened the EE bay filled with smoke and he was hit with debris and ash. He could not see anything and the first officer came up and guided him to the paramedics. They offered to transport him to the hospital but he declined to go to the hospital.

He saw firefighters using a saw to create an entry.

He was asked to help open cargo doors. The forward right lower cargo door was partially open. He had opened a B-757 lower cargo door before but had not opened a B-767 lower cargo door before. He went to the Main Cargo Door (MCD) and tried to open it. He climbed

up to access the manual door controls. He removed the plug and used 60 turns to open the blow out panels. He saw the sight glass at bottom of door that showed it was unlocked. He cranked the door about 300-400 times but there was no movement. A fireman escorted him into the interior to find out why the door would not open but when he inspected the door he could not see anything wrong with the door. While he was inside the fuselage he took photos with Chris's camera.

A fireman asked him to remove the ELT. A fire investigator told him that there was no access to the airplane and she asked him for a statement.

He filled out ABX incident report and a company delay report.

The two most striking things to him were the "boom" he heard and how fast the firefighters arrived on scene.

Sunia Malolo
DHL warehouse employee.

He had been employed by DHL for 5.5 years. He was wearing ear protection.

The accident airplane's cargo loading was normal. About 10:10 PM, he was assigned as a wing walker on the left side of plane and he was positioned abeam of the entry door. He had removed the stairs from the airplane and was "waiting to push the airplane out." He saw gray smoke ("like barbecue smoke") coming out of a vent on the bottom of the airplane. Because this was unusual, he wondered why it was happening. About 30 seconds later he heard a "crack" and noticed the airplane power go down and saw the cockpit filling with smoke. He saw a pilot exit the right cockpit window.

Aik, the "lead" yelled at him to grab the stairs which were located behind the airplane plane near the tail. Mr. Malolo got the stairs and maneuvered them up to the L1 door, but Ike told him to back it up towards the cockpit window and the first officer was urging him to hurry with the stairs. The crew stairs were connected to a tug and he estimated that it took about two minutes to position the stairs. The captain came down the stairs and he asked him if he was alright. He said "yeah."

He saw fire trucks arrive and did not call 911. He went into the warehouse and then was told to get out of the building.

Aik Gwee
DHL Load Planner

He had been employed by DHL for 10 years and had been a Lead for 5 years.

He was the Haz Mat planner for the weekend and he signed the haz mat paperwork for the accident airplane. There were 2 containers with dry ice; positions 5L and 7L. The airplane was loaded and the "crosscheck" was completed. He saw 2 mechanics at the E/E compartment and one went inside and one remained outside.

The first officer closed the L1 door and the stairs were positioned to the back of airplane. Any wing walker can drive the stairs away and he was unsure who did it that night. He did know who closed the cargo door that night. The Captain told him that they needed 6-7 minutes until they were ready to complete the checklist.

Somewhere in process (before the fire) he put the paperwork in the tug (typical operation so that the paperwork does not blow away) and talked to the tug driver.

He walked the right side of the airplane and came back up the left side of the airplane. As he came forward on the left side someone pointed out smoke coming out of the equipment cooling exhaust valve on the bottom of the airplane. He looked for the maintenance guys (Chris and David). He saw the maintenance van near another airplane and assumed both mechanics were in the van.

He walked to the right side of the airplane under the copilot's seat and he heard a "pop" and the whole airplane shut down. He heard the pilot yell, "fire, fire" (he heard it clearly because the airplane was shut down) and a rope came down very near him and he saw smoke coming out of the first officer's window. He used his radio to call the DHL control center – (supervisor) and asked them to call the fire department.

He walked around to the left side of the airplane with the copilot. He saw the captain with what he thought was a flashlight (or some kind of light) and the captain was trying to open his window. The first officer told him to move the stairs to the cockpit window so the captain could get down. He saw the captain coming down the stairs but had no further communication with the pilots.

An Airfield Safety Officer approached them and asked if anyone else was onboard or if there were any injuries. The fire trucks showed up about a minute later.

Later his supervisor asked for the paperwork and Aik told him it is on the tug but that he was not allowed to go near the airplane.

The DHL building was evacuated and he went to the parking lot. The police told him that they had to move further away from the building. About an hour later they were told that they could return to the building. He stayed until about 0130 when he was told to go home.

ATTACHMENTS:

Attachment 1 – Door Operation

Attachment 2 – SFO Aircraft Incident Report

Attachment 3 – FAA Memo ABX 1611 Communication with Ground Control

Attachment 4 – Airport Event Chronology

Attachment 5 – Witness Statements

Attachment 6 - Photographs

Nora Marshall

Survival Factors Investigator