



MEMORANDUM FOR RECORD

Stephen Stein
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR19IA030
Aircraft Registration & Make/Model: N781FE; Cessna 208B
Accident Location: Bakersfield, California
Incident Date: November 23, 2018

Note: The following interviews were documented by the Investigator –In-Charge (IIC), Stephen Stein.

Interview #1 Summary

Aldo Beltran Rojas
Driver/Check-in Clerk, Performance Food Group

Interview date and time: December 12, 2018; 1515 PT

Mr. Rojas stated that he had been with the company for about 5 years at the time of the incident and was responsible for packing the dry ice shipment that was placed on the incident flight. He stated that although his main job at the time was a driver/check-in clerk, he also supported packing when the company needed help. According to his understanding of the dry packing process at the time, for boxes that required 0.9 kg, he would place one and a half scoops of dry ice in the insulated packaging surrounding the box. They discovered after the incident that this was consistent with 3-4 lbs of dry ice instead of the 2 lbs prescribed by the label on the side of the box. For larger boxes, he would use 2 scoops of dry ice. After the accident, the procedures changed; they use the same 64 oz. scoop and use 1 scoop for 2.3 lbs of dry ice and 2 scoops for 4.6 lbs of dry ice.



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Interview #1 Summary

Alex Entenman
Fire Captain

Interview date and time: November 23, 2018; 1950 PT

Captain Entenman stated that when he arrived on-scene he illuminated the airplane with the headlights from his vehicle and observed that the pilot's head back, mouth open, and appeared unconscious. He chocked the airplane and knocked on the door, but did not receive a response. He opened the door and tapped the pilot's arm, then shook his arm, but he still did not respond. The fire captain then gave the pilot a sternal rub and he moved and began to "come around." The cockpit was dark, but the fire captain was able to locate the fuel shutoff to shut down the engine and then subsequently shut down the electrical system. By this time, the pilot started to become more alert, but his speech was unintelligible. Eventually, the pilot appeared fully alert as he was able to tell the firefighter his name and provide other relatable information. The pilot egressed on his own and his vitals (including his oxygen, pulse, and blood pressure) all showed normal. The fire captain did not observe any unusual odors onboard.



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Interview #1 Summary

Derry Englund
FedEx Employee

Interview date and time: November 29, 2018; 0851 PT

Mr. Englund stated that he was an operations manager at the time of the incident and his job was to supervise the loading of the aircraft. Couriers bring packages onto the ramp where they are placed on inline rollers. Each package is rolled to the aircraft where it is weighed before being loaded onto the airplane. They can load an unlimited amount of dry ice onto the pods in the lower cargo area, but only 76 kg in the area behind the cockpit. A dangerous goods specialist will complete the paperwork that is reviewed and approved by the pilot before taking the shipment. He has worked with the incident pilot numerous times and recalled that he typically doesn't care where they load the boxes, but with dry ice they didn't have a choice because the box size wouldn't allow them to fit in the lower pod.

Mr. Englund was with the incident pilot for most of the evening starting at 1645 and ending when he boarded the airplane to fly at 1729. During their interactions the pilot seemed coherent and did not exhibit any abnormal behaviors. In Mr. Englund's experience, the incident pilot is the most thorough in his organization as he observes each package as it goes on. In his opinion,

the incident pilot is also healthy and fit. Mr. Englund heard a rumor that one his drivers observed the pilot in the restroom for 20 minutes, but according to Mr. Englund, the rumor is false because the individual could not see the pilot from where he was. Further, Mr. Englund described the individual as a “sensationalist.”



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Interview #1 Summary

Masao Kagawa
Incident Pilot

Interview date and time: November 26, 2018; 1044 PT

According to the pilot, at the time of the incident he had been flying for West Air, Inc. for 4 years 6 months and had accumulated about 3,420 flight hours in the C208 cargo configuration.

On Tuesday, November 20, 2018, the pilot woke up around 03:45 am after going to sleep about 8:00 pm the night before at a hotel in Ontario, California. He traveled to the airport about 04:45 am and preflighted his airplane around 05:00 am. The pilot flew the Cessna 208B for 1.1 hrs to Bakersfield, California, arrived home around 09:00 am, had lunch and enjoyed leisure time for a few hours before he returned to work at 03:40 pm. The pilot arrived at the airport about 4:00 pm, contacted the company at 4:10 pm, began his preflight inspection of the airplane and taxied to the FedEx ramp where he awaited a cargo load. He then taxied out at 05:40 pm and flew to Ontario, California where he arrived at 06:45 pm. Following an uneventful day, he had a small dinner and went to sleep before 08:00 pm.

The pilot reported the events that took place Wednesday, November 21, 2018 was very similar to the previous day's flights.

On Thursday, November 22, 2018, the pilot had the day off. He woke up around 05:00 am at his hotel, ate brown rice, fish and vegetables, jogged 5 miles and then walked before he returned to the hotel. He then relaxed for several hours and ate dinner about 04:00 pm. The pilot went to bed before 08:00 pm.

On the day of the incident, the pilot woke up at 03:45 am, had a quick breakfast that consisted of a cup of yogurt and a banana, went to the airport at 04:45 am and contacted the company at 05:00 am. He conducted a preflight of the airplane and subsequently flew to Bakersfield, California that morning where he arrived about 08:30 am. The pilot then ate a meal fish, brown rice, and vegetables, along with some yogurt and soy milk for his breakfast meal. He then rested for a few hours before he had lunch with his family, which consisted of one slice of cheese pizza. The pilot left his home about 03:45 pm for the airport and contacted the company about 04:10 pm. After an uneventful preflight inspection, he taxied the airplane to the FedEx ramp at the southeast corner of the airport where 41 boxes with dry ice, each showing 0.9kg were loaded into the cargo area. The pilot reported that he approved the load after calculating that the dry ice was below the maximum allowed. He stated that he did not go to the bathroom and did not experience any sickness or medical anomalies prior to the flight.

The load was finished about 05:22 pm, the paperwork was completed about 05:24 pm and the pilot started the engine and began taxiing the airplane at 05:29 pm. While taxiing to runway 30R, he experienced strong sleepiness and had trouble breathing, so he stopped the airplane at the run-up area where he lost consciousness. At the time, the cockpit environment was sealed off prior to the flight. He had closed all windows, doors and vents (including the overhead and cockpit vents). The temperature inside the cockpit was comfortable for him, but he did not recall what the exact temperature was. Later he felt cold, fresh air on his body and woke up.

The pilot stated that he infrequently flies with dry ice and when he does, he usually only has about 10 boxes with him (also at 0.9 kg per box) and usually places them in cargo zones 5 or 6 (near the back), not zones 1, 2, and 3, which are located right behind him. On the of the incident, the packages were placed behind the cockpit in zones 1, 2, and 3 for even weight and balance distribution.

The pilot reported that he did not experience any sickness prior to the flight nor did he have any medical issues. At the time of the incident, he had valley fever, which he had been taking medication for since June 2018. The first night he took the medication, he experienced sleepiness, but did not experience any further side effects after that.

Interview #2 Summary

Masao Kagawa
Incident Pilot

Interview date and time: February 4, 2019; 1224 PT

Mr. Kagawa stated that the outside temperature was about 15° C and the internal temperature of the cockpit was slightly higher, although he did not remember what it was. He closed all the vents because the weather included light rain and was “chilly.”

Interview #3 Summary

Masao Kagawa
Incident Pilot

Interview date and time: February 5, 2019; 1314 PT

According to the pilot, he also started to feel dizzy while taxiing to the run-up area and checked to see if the heater was on after considering CO poisoning. The heat was not on. He subsequently had difficulty breathing.

Interview #4 Summary

Masao Kagawa
Incident Pilot

Interview date and time: May 2, 2019; 0904 PT

Mr. Kagawa stated that he picked up a shipment of dry ice in Visalia, California on March 5, 2019. After he picked up the shipment, he closed the door, started to taxi, but started to experience the same symptoms as he did during the incident in November; hard to breathe and had difficulty keeping his eyes open. The CO₂ detector that had been recently issued to him by the operator indicated 4,000 parts per million (ppm), so after about 200 ft he taxied the airplane back to the ramp and felt it harder to breathe. As he taxied the airplane back the detector showed 7,800 ppm. During taxi he did not have the vents open.



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Interview #1 Summary

Peter Habell
FedEx Employee

Interview date and time: November 27, 2018; 1110 PT

Mr. Habell reported that he reviewed the paperwork to ensure the dry ice quantity did not exceed the company's limitation on the day of the incident. He stated that he has known the pilot for about 2 years and has been working at the FedEx's ramp where they accept shipments and on the day of the incident, he saw the pilot about 05:30 pm. According to Mr. Habell, the pilot appeared composed and did not exhibit any unusual behavior. He observed the airplane taxi out and did not observe any unusual movements with the airplane.

Interview #2 Summary

Peter Habell
FedEx Employee

Interview date and time: November 28, 2018; 1020 PT

A rumor was being circulated that the pilot was in the bathroom for an extended period of time before the incident flight and when he emerged, he did not look well. According to Mr. Habell, he asked around and discovered that the rumor was not true as several people had mis-interpreted this information. Specifically, the person who observed the pilot in the restroom actually “misunderstood” what he saw.

Interview #3 Summary

Peter Habell
FedEx Employee

Interview date and time: December 9, 2019; 0829 PT

Mr. Habell stated that the individual who reportedly observed the pilot emerge from bathroom and was not well changed his story several days later. After Mr. Habell re-addressed the question with him, he reported that the pilot “never looked ill.”