

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Washington, D.C. 20594

June 22, 2006

Specialist's Factual Report

HUMAN PERFORMANCE

DCA06MA022

A. ACCIDENT

Operator: United Parcel Service Company
Location: Philadelphia International Airport (PHL), Philadelphia, PA
Date: February 7, 2006
Time: 2359 eastern standard time (est)
Airplane: DC-8-71F, N748UP

B. HUMAN PERFORMANCE SPECIALIST

Malcolm Brenner, Ph.D.
National Transportation Safety Board

Working with the Operations Group:

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C. SUMMARY

On February 7, 2006, at 2359 eastern standard time, a Douglas DC-8-71F, N748UP, operated by United Parcel Service Company (UPS) as flight 1307, landed at Philadelphia International Airport (PHL), Philadelphia, Pennsylvania, after the crew reported a cargo smoke indication. The three crewmembers were able to evacuate the airplane using the L1 slide. Fire subsequently caused substantial

damage to the airplane and numerous cargo containers on board. The three crewmembers received minor injuries. Night visual meteorological conditions prevailed and an instrument flight rules flight plan had been filed for the flight from Hartsfield-Jackson Atlanta International Airport (ATL), Atlanta, Georgia, to PHL. The non-scheduled cargo flight was conducted under 14 CFR Part 121.

D. DETAILS OF THE INVESTIGATION

The Human Performance Specialist served as a member of the Operations Group during the field phase of the investigation and collected and reviewed additional relevant information. This report focuses on background and medical issues.

1.0 BACKGROUND OF THE PILOTS

1.1 Captain

The captain, age 59, was hired by UPS in September 1988. A search of FAA and company records revealed no history of FAA enforcement actions, incidents, accidents, or company disciplinary actions for the captain. A search of the National Driver Register found no history of driver's license suspensions or revocations. According to the captain, there had been no major changes in his personal or financial situations in the past six months.

According to the captain, he typically went to bed about 0100 to 0200 and awoke about 0930 when he did not have work-related responsibilities.¹ He said that it was hard going back and forth between a night schedule at work and the day schedule that he kept when he was at home. He was off-duty on Saturday and Sunday, February 4 to 5. He engaged in routine activities around his home in Orlando, Florida, sleeping a normal night schedule. He awoke on Monday, February 6 about 0630 and deadheaded to ATL. He did not sleep before his reporting time of 2115, flew from ATL to PHL with the accident crew, and obtained about 1 ½ hours rest in a recliner chair during the "sort." He returned from PHL to ATL with the crew, slept in the hotel from about 0600 to noon, and ate dinner about 1700.² This was the first time the accident crewmembers had flown together. They were scheduled to fly together for the rest of the week, flying the same trips on February 7, 8, and 9, and completing the trip pairing when they returned to ATL on February 10. The accident occurred on the second day at 2359.

¹ The captain stated that he awoke about 0630 along with his wife on days that she worked.

² Information on the captain's activities on the day of the accident was obtained subsequent to the captain's interview with the Operations Group.

1.2 First Officer

The first officer, age 40, was hired by UPS in February 1996. A search of FAA and company records revealed no history of FAA enforcement actions, incidents, accidents, or company disciplinary actions for the first officer. A search of the National Driver Register found no history of driver's license suspensions or revocations. According to the first officer, there had been no major changes in his personal or financial situations in the past six months.

When he did not have work responsibilities, according to the first officer, he typically went to bed at midnight or 0100 and awoke at 0800 to 0900. On Saturday, February 4, he engaged in normal activities around his home in Crestwood, Kentucky and went to bed about 2300. On Sunday, February 5, 2006, he awoke about 0700, conducted normal activities that included attending a Super Bowl party (at which he did not drink alcohol) and went to bed about 2200. He awoke on Monday, February 6 at 0415 to 0430 to commute to ATL. He ate a buffet at the hotel, napped from 1330 to 1800, exercised, skipped dinner, and had a 2110 pick up at the hotel. The first night of a sequence was normally the hardest for him because of the circadian change to a night schedule and working with a new crew. On Tuesday, February 7, 2006, he was drug tested at the airport after he arrived and did not get to bed until about 1000. He slept until noon and then ate a buffet lunch. He had a few hours nap in the afternoon, exercised, and skipped dinner.

1.3 Flight Engineer (Second Officer)

The flight engineer, age 61, was hired by UPS in January 1994. A search of FAA and company records revealed no history of FAA enforcement actions, incidents, accidents, or company disciplinary actions for the flight engineer. A search of the National Driver Register found no history of driver's license suspensions or revocations. According to the flight engineer, there had been no major changes in his personal or financial situations in the past six months.

When he did not have work responsibilities, according to the flight engineer, he typically went to bed about 2200 and awoke about 0630. On Saturday, February 4, he engaged in normal activities at home in Tucson, Arizona and went to bed about 2200. On Sunday, February 5, he awoke at 0700, worked around the house, and went to bed about 2130. He awoke on Monday, February 6, at 0500, flew to ATL, napped in the hotel from 1500 to 1730, ate dinner, and went to work about 2100. The crew flew to PHL and, after the "sort," returned to ATL around 0520. He slept from 0600 to 1100, went for a long walk, napped from 1600 to 1800, ate dinner, and reported for work about 2100. This was his normal layover routine and he felt rested.

2.0 MEDICAL FACTORS

2.1 Captain

According to FAA records, the captain held a valid First Class Medical Certificate issued 2/3/2006 with the limitation “must wear corrective lenses.” The medical record listed the pilot’s distant vision as corrected to 20/15 in the right eye and 20/20 in the left eye, and his near vision as 20/40 without correction. The FAA medical certificate listed the pilot’s height as 5’ 10” and weight as 190 lbs.

The captain indicated that his health was good and that it had not changed in the past six months. He wore corrective lenses, and characterized his vision, hearing and sense of smell as good.

Post-accident testing was conducted by the company for alcohol on a blood sample obtained from the captain at 1030 on 2/8/2006 and for major drugs of abuse³ on a urine sample obtained at 1032 on 2/8/2006. All tests were negative.

2.2 First Officer

According to FAA records, the first officer held a valid First Class Pilot Medical Certificate issued 2/1/2006 with no limitations. The medical record listed the pilot’s vision as 20/20 in both eyes in both near and distant vision. The FAA medical certificate listed the pilot’s height as 6’ 5” and weight as 300 lbs.

The first officer indicated that his health was good and that it had improved in the past six months because he underwent some minor elective surgery. He did not wear corrective lenses. He characterized his vision and hearing as good and his sense of smell as normal.

Post-accident testing was conducted by the company for alcohol on a blood sample obtained from the first officer at 0955 on 2/8/2006 and for major drugs of abuse on a urine sample obtained at 0950 on 2/8/2006. All tests were negative.

³ The drugs tested in the post accident analysis were those required by the National Institute for Drug Abuse: marijuana, cocaine, opiates, phencyclidine, and amphetamines.

2.3 Flight Engineer

According to FAA records, the flight engineer held a valid Second Class Pilot Medical Certificate issued 3/15/2005 with the limitation “holder must wear corrective lenses.” The medical record listed the pilot’s distant vision as 20/200 corrected to 20/20, his near vision as 20/100 corrected to 20/40, and his intermediate vision as 20/200 corrected to 20/30. The FAA medical certificate listed the pilot’s height as 5’ 8” and weight as 212 lbs.

The flight engineer indicated that his health had improved in the past six months due to a 20-pound weight loss. He wore corrective lenses for astigmatism and presbyopia. He characterized his vision and hearing as fine and his sense of smell as average.

Post-accident testing was conducted by the company for alcohol on a blood sample obtained from the flight engineer at 1010 on 2/8/2006 and for major drugs of abuse on a urine sample obtained at 1015 on 2/8/2006. All tests were negative.