



National Transportation Safety Board

Aviation Accident Final Report

Location:	VIEQUES, PR	Accident Number:	MIA00FA208
Date & Time:	07/08/2000, 0455 AST	Registration:	N405MN
Aircraft:	Cessna 402C	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:		Part 135: Air Taxi & Commuter - Non-scheduled	

Analysis

After departure from San Juan, the pilot of N405MN contacted the FAA San Juan Approach Control, was identified on radar by the controller, and told to climb to 7,000 feet. About 1 minute later, the pilot is told to proceed direct to St. Croix. About 4 minutes later, the pilot requested radar vectors to St. Croix, and was told to fly heading 140 degrees. Radar data showed the flight leveled at the cruise altitude of 7,000 feet at about 0444. At about 0453:36, the pilot requested a lower altitude, and was cleared to 2,000 feet. The pilot acknowledged the clearance, and no further transmissions were received from the pilot. The flight began descent from 7,000 feet at about 0454. At 0454:29, the aircraft's transponder reports the flight is at 6,500 feet. At 0454:41, the transponder reports the flight is at 5,600 feet, and at 0454:49, at 4,000 feet. At 0454:53, the transponder reports the flight is at 1,100 feet. The flight is not observed on radar after this. No other aircraft or radar returns are observed near the flight as it began its descent. One main landing gear tire, wheel, and brake assembly; the left wing lower skin from the area above the wing flap; the left wing baggage compartment door; the right nose baggage compartment door; the cabin floor cover; and some items from the U.S. mail cargo, were recovered floating in the ocean, at points north of the last observed radar contact with the airplane, on the day of the accident and in the days after the accident. The recovered components had damage from being separated from the airplane. None of the recovered components had any fire, heat, or soot damage. The remainder of the airplane was not located and recovered. The depth of the sea in the area of the accident site was reported by the Coast Guard to be about 6,000 feet. U.S. Post Office personnel reported the flight carried 1,517 pounds of U.S. mail. No hazardous materials were in the mail. A 75-pound pouch of mail was recovered from the ocean and identified as having been placed on N405MN. The weather at the time of the accident was reported to scattered clouds with visibility 10 miles.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The airplane's entry into an uncontrolled descent for undetermined reasons from which it crashed into the ocean.

Findings

Occurrence #1: UNDETERMINED

Phase of Operation: DESCENT

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. TERRAIN CONDITION - WATER

Factual Information

HISTORY OF THE FLIGHT

On July 8, 2000, about 0455 Atlantic standard time, a Cessna 402C, N405MN, registered to and operated by M and N Aviation, Inc., as a Title 14 CFR Part 135 nonscheduled domestic mail contract flight from San Juan, Puerto Rico, to St. Croix, U.S. Virgin Islands, crashed into the Caribbean Sea, near Vieques, Puerto Rico. Visual meteorological conditions were reported at St. Croix, the nearest weather observing site, and an instrument flight rules flight plan was filed. The aircraft is presumed to have been destroyed and the commercial-rated pilot is presumed to have received fatal injuries. The flight originated from San Juan, Puerto Rico, the same day, about 0430.

Transcripts of communications from the FAA, San Juan Approach Control, show that after departure from San Juan, the pilot of N405MN contacted the FAA San Juan Approach Control at 0432:18, was identified on radar by the controller, and told to climb to 7,000 feet. About 1 minute later, the pilot is told to proceed direct to St. Croix and about 4 minutes later, the pilot requested radar vectors to St. Croix from the controller, and was told to fly heading 140 degrees. At about 0453:36, the pilot requested a lower altitude, and was cleared to 2,000 feet. The pilot acknowledged the clearance, and no further transmissions were received from the pilot. (See NTSB Air Traffic Control Specialist's Factual Report.)

Recorded radar data from the FAA San Juan Approach Control and the United States Air Force show the flight leveled at the cruise altitude of 7,000 feet at about 0444. The flight began descent from 7,000 feet at about 0454. At 0454:29, the aircraft's transponder reports the flight is at 6,500 feet. At 0454:41, the transponder reports the flight is at 5,600 feet, and at 0454:49, at 4,000 feet. At 0454:53, the transponder reports the flight is at 1,100 feet. The flight is not observed on radar after this. No other aircraft or radar returns are observed near the flight as it began its descent. (See NTSB Recorded Radar Study.)

Debris and mail from the airplane was located by the U.S. Coast Guard, about 11 hours after the accident, about 5 miles north of the last radar position of the airplane. The main airplane wreckage and the pilot were not located. The depth of the sea in the area of the accident site was reported by the Coast Guard to be about 6,000 feet.

U.S. Post Office personnel reported the flight carried 1,517 pounds of U.S. mail. No hazardous materials were in the mail. A 75-pound pouch of mail was recovered from the ocean and identified as having been placed on N405MN.

PERSONNEL INFORMATION

The pilot held an FAA commercial pilot certificate with airplane single engine land, airplane multiengine land, and instrument airplane ratings, last issued on August 18, 1997. The pilot held a FAA first class medical certificate issued on October 2, 1999, with the limitation that the holder wear corrective glasses.

The pilot was hired by the operator on June 24, 2000, and received a flight check and was assigned as a pilot-in-command in the Cessna 402C on that date. The operator reported the pilot had accumulated 2,400 total flight hours, 1,980 flight hours in multiengine airplanes, and 235 flight hours in the Cessna 402C. The pilot had accumulated about 10 flight hours in the 7 days prior to the accident, and had been on duty for 1 hour 20 minutes at the time of the

accident.

AIRCRAFT INFORMATION

The airplane was a 1980 model Cessna 402C, serial number 402Co221. At the time of the accident the airplane had accumulated 13,702 total flight hours. The airplane received a 100-hour inspection on June 27, 2000, 27 flight hours before the accident. On July 3, 2000, 12 flight hours before the accident, the left propeller was changed. The airplanes static system, altimeters, and altitude encoder received the 24-month test required by FAA regulations on July 19, 1999.

Records show the airplane was involved in a landing incident at Vieques, Puerto Rico, on April 5, 2000, 86 flight hours before the accident. The airplane was ferried to Isla Grande Airport, San Juan, Puerto Rico, for repairs. Two flush patches were installed on the right wing leading edge, the right aileron had the skin replaced and then the aileron was painted and balanced, and the right wing tip was patched. The airplane was returned to service on June 2, 2000, after a test flight.

On December 1, 1999, 324 flight hours before the accident, the airplane's registration number was changed from N2717B to N405MN. Also on that date, company maintenance personnel replaced the lower vertical stabilizer bracket and bearing assembly, the upper hinge assembly, all elevator bearings, and the rudder and trim tab assemblies. (See airplane maintenance records.)

WEIGHT AND BALANCE INFORMATION

At the time the flight began the descent from 7,000 feet, the airplane was estimated to weight about 6,800 pounds and the center of gravity was estimated to be about 159.6 inches aft of the datum. The maximum allowable takeoff weight for the airplane is 6,850 pounds, and center of gravity limits at the maximum allowable takeoff weight are 151.58 inches aft of the datum, forward limit, and 160.67 inches aft of the datum, aft limit.

METEOROLOGICAL INFORMATION

The St. Croix Airport, 0455 automated surface weather observation was wind 080 degrees at 9 knots; sky clear, visibility 10 miles, temperature 79 degrees F, dew point temperature 72 degrees F, altimeter 30.03 inches of Hg.

The Roosevelt Roads Naval Air Station, 0455 surface weather observation was wind 070 degrees at 4 knots; visibility greater than 6 miles; few clouds at 2,500 feet, ceiling 11,000 feet broken, 25,000 feet broken; temperature 79 degrees F; dew point temperature 72 degrees F; altimeter setting 30.03 inches of Hg.

Weather radar information from the San Juan, Puerto Rico, at 0443 showed there were no weather echoes reported in the crash area.

Satellite data at 0445 showed the cloud tops in the area of the accident were about 21,700 feet.

A pilot flying from San Juan to St. Thomas, around the time of the accident flight reported he encountered isolated moderate to light rain showers in a pitch-black sky. Visibility was at least 10 nautical miles when there was visible land lights to see. He stated he did not encounter any significant turbulence or adverse weather at his assigned altitude of 3,000 feet.

Another pilot stated that while enroute from San Juan to Vieques about 0500, the ceilings were

2,000 feet widely scattered, 3,000 to 5,000 feet scattered to broken, visibility 10 miles in light haze. Some scattered showers were also encountered on the route. Light turbulence throughout the area could be described as normal.

At the time of the accident the sun and moon were below the horizon. See NTSB Meteorological Factual Report.

WRECKAGE AND IMPACT INFORMATION

One main landing gear tire, wheel, and brake assembly, the left wing lower skin from the area above the wing flap, the left wing baggage compartment door, the right nose baggage compartment door, the cabin floor cover, and some items from the U.S. mail cargo, were recovered floating in the ocean, at points north of the last observed radar contact with the airplane, on the day of the accident and in the days after the accident. The recovered components had damage from being separated from the airplane. None of the recovered components had any fire, heat, or soot damage. The remainder of the airplane was not located and recovered.

MEDICAL AND PATHOLOGICAL INFORMATION

The remains of the pilot were not recovered and no autopsy or toxicology studies could be performed.

ADDITIONAL INFORMATION

The components from the airplane which were recovered from the ocean were released by NTSB on July 10, 2000, to Jose Maldonado, President, M and N Aviation, Inc.

Pilot Information

Certificate:	Commercial	Age:	35, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	10/02/1999
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2400 hours (Total, all aircraft), 235 hours (Total, this make and model), 1420 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N405MN
Model/Series:	402C 402C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	402C0221
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	06/27/2000, 100 Hour	Certified Max Gross Wt.:	6850 lbs
Time Since Last Inspection:	27 Hours	Engines:	2 Reciprocating
Airframe Total Time:	13702 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-VB
Registered Owner:	M AND N AVIATION, INC.	Rated Power:	325 hp
Operator:	M AND N AVIATION, INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	XXDA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	STX, 61 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	0455 AST	Direction from Accident Site:	130°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	26 °C / 22 °C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SAN JUAN, PR (SJU)	Type of Flight Plan Filed:	IFR
Destination:	ST. CROIX, VI (STX)	Type of Clearance:	IFR
Departure Time:	0425 AST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	Unknown
Ground Injuries:	N/A	Aircraft Explosion:	Unknown
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	JEFFREY L KENNEDY	Report Date:	07/17/2001
Additional Participating Persons:	PEDRO SAN ANTONIO; SAN JUAN, PR		
Publish Date:	04/19/2016		
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).