



National Transportation Safety Board Aviation Accident Final Report

Location:	WEST PALM BEACH, FL	Accident Number:	MIA98LA123
Date & Time:	04/03/1998, 1705 EST	Registration:	N400AR
Aircraft:	Cessna 402B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	9 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

According to the passengers, they departed about 30 or 40 minutes late because of the late arrival of the airplane. When the pilot arrived, he 'seemed to...be in a hurry...there was no safety instructions or any attempt to show us or the kids the operation of the door.' After takeoff, the flight climbed to an altitude of 6,700 feet. The pilot attempted to make radio contact with an unknown station, was unsuccessful in making radio contact, and according to a passenger, 'seemed agitated.' The passengers noticed that the left alternator light was illuminated, and questioned the pilot. The pilot told the passengers, '...it's nothing it always comes on.' About 15 minutes after departure, the flight descended to 3,000 feet and the pilot attempted to make radio contact with someone again. The flight continued at 3,000 feet until the pilot saw a ship in the ocean. He descended to around 1,000 feet over the ship, and was still working with the radio. The flight continued onto the coast. The passengers told EMS personnel that the airplane made an 'abrupt' left turn to line up with the runway, and when the airplane touched down, they felt the right side of the aircraft collapse. After touchdown on runway 27L, the airplane's right main landing gear collapsed, then the left gear collapsed. The airplane slid off the right side of the runway and struck RVR (runway visual range) equipment. According to the pilot's statement he, '...made [a] normal approach to runway 27 left. All system indicated normal. Upon touchdown and roll out all was ok for 3-4 hundred feet- [right] gear collapsed...unable to hold aircraft on runway...nose hit RVR antenna swinging aircraft more right to catch right wing and remove tip tank. Left gear collapsed as aircraft came to rest.' According to the FAA Inspector's statement, it was his opinion, on the day of the accident the aircraft was 'over gross weight on departure from Marsh Harbor...the pilot was experiencing radio problems... and I [FAA Inspector] believe he was flustered and annoyed...in the pattern he made an abrupt left turn to lineup with [runway] 27, and when he touched down on the runway the right gear immediately collapsed due to [side] overload.' In addition, both landing gear trunnions, where the retract mechanisms attached, were broken as if 'overloaded.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot allowed the airplane to improperly touchdown on the right main landing gear,

resulting in the gear collapsing, and subsequent impact with runway visual range equipment.

Findings

Occurrence #1: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. AIRCRAFT WEIGHT AND BALANCE - NOT PERFORMED - PILOT IN COMMAND
2. PLANNED APPROACH - INADEQUATE - PILOT IN COMMAND
3. DIVERTED ATTENTION - PILOT IN COMMAND
4. TOUCHDOWN - IMPROPER - PILOT IN COMMAND
5. (C) LANDING GEAR,MAIN GEAR - COLLAPSED

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

6. OBJECT - AIRPORT FACILITY

Factual Information

On April 3, 1998, about 1705 eastern standard time, a Cessna 402B, N400AR, registered to Dove One Inc., crashed into airport equipment after the landing gear collapsed at Palm Beach International Airport, West Palm Beach, Florida. Visual meteorological conditions prevailed at the time, and a company VFR flight plan was filed for the Title 14 CFR Part 135 on-demand air taxi flight. The commercial-rated pilot and eight passengers reported no injuries. The airplane was substantially damaged. The flight departed Marsh Harbor, Bahamas, at 1520.

According to the passengers, they were scheduled to leave Marsh Harbor at 1500, but the airplane was about 30 or 40 minutes late. A passenger said, when the pilot arrived he, "seemed to...be in a hurry...there was no safety instructions or any attempt to show us or the kids the operation of the door." Following takeoff from Marsh Harbor, the flight climbed to an altitude of 6,700 feet. The pilot attempted to make radio contact with an unknown station while over Freeport, Bahamas, but was unsuccessful. The passenger said that he "seemed agitated." In addition, the passengers noticed that the left alternator light was illuminated, and questioned the pilot. The pilot told the passengers, "...it's nothing it always comes on." About 15 minutes after departure, the flight descended to 3,000 feet. The pilot attempted to make radio contact with someone again, and asked the passengers to help him locate another microphone, "...to help him make contact with ATC."

One of the passengers stated, the flight continued at 3,000 feet until the pilot saw a ship in the ocean and, "...he dropped to around 1,000 feet over the ship, he was still working with his radio." The passenger said that the pilot offered, "no expatiation of why this was going on." Another passenger explained that the pilot had no radio contact. The flight continued onto the coast, and once the coast was in sight the pilot changed course. The passengers stated that, "later we learned that he said he had communication with West Palm Beach Airport."

The passengers told EMS personnel that the airplane made an "abrupt" left turn to line up with the runway, and when the airplane touched down they felt, "the right side of the aircraft collapse." After touchdown on runway 27L, the airplane's right main landing gear collapsed, then the left gear collapsed. The airplane slid off the right side of the runway and struck RVR (runway visual range) equipment.

According to the pilot's statement, he arrived at Palm Beach about 1630 and, "...made [a] normal approach to runway 27 left. All systems indicated normal. Upon touchdown and roll out all was ok for 3-4 hundred feet- [right] gear collapsed...unable to hold aircraft on runway...nose hit RVR antenna swinging aircraft more right to catch right wing and remove tip tank. Left gear collapsed as aircraft came to rest."

According to the FAA Inspector's statement, it was his opinion, on the day of the accident the aircraft was, "over gross weight on departure from Marsh Harbor...the pilot was experiencing radio problems... and I [FAA Inspector] believe he was flustered and annoyed...in the pattern he made an abrupt left turn to lineup with [runway] 27, and when he touched down on the runway the right gear immediately collapsed due to [side] overload." In addition, both landing gear trunnions, where the retract mechanisms were attached, were broken as if "overloaded."

Pilot Information

Certificate:	Commercial	Age:	56, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/30/1997
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	6120 hours (Total, all aircraft), 350 hours (Total, this make and model), 5700 hours (Pilot In Command, all aircraft), 54 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N400AR
Model/Series:	402B 402B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	402B-0338
Landing Gear Type:	Retractable - Tricycle	Seats:	9
Date/Type of Last Inspection:	03/27/1998, 100 Hour	Certified Max Gross Wt.:	6300 lbs
Time Since Last Inspection:	17 Hours	Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520E
Registered Owner:	DOVE ONE INC.	Rated Power:	300 hp
Operator:	DOVE ONE INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	DOVA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PBI, 20 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1853 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 2000 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	28° C / 20° C
Precipitation and Obscuration:			
Departure Point:	MARSH ISLAND, OF (MYNN)	Type of Flight Plan Filed:	VFR
Destination:	(PBI)	Type of Clearance:	VFR
Departure Time:	1520 EST	Type of Airspace:	

Airport Information

Airport:	PALM BEACH INTERNATIONAL (PBI)	Runway Surface Type:	Asphalt
Airport Elevation:	20 ft	Runway Surface Condition:	Dry
Runway Used:	27L	IFR Approach:	None
Runway Length/Width:	3210 ft / 75 ft	VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	8 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	9 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALAN J YURMAN	Report Date:	08/03/2000
Additional Participating Persons:	BRUCE HILL; FT. LAUDERDALE, FL		
Publish Date:			
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.nts.gov/pubdms/ .		

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