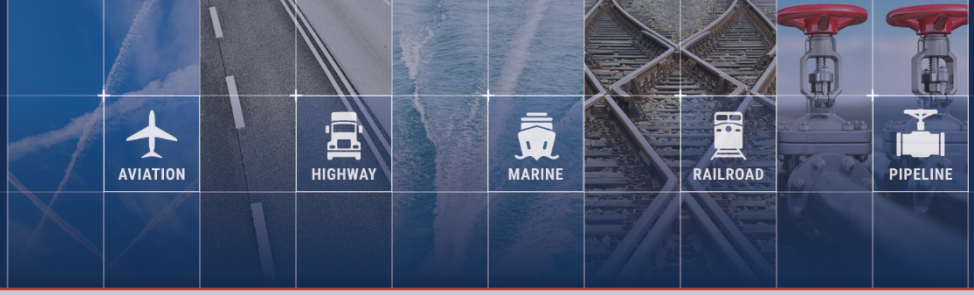

Aviation Investigation Final Report

Location:	Dunnellon, Florida	**Accident Number:**	ERA17LA018
Date & Time:	October 14, 2016, 17:35 Local	**Registration:**	N208KM
Aircraft:	Cessna 208	**Aircraft Damage:**	Substantial
Defining Event:	Miscellaneous/other	**Injuries:**	1 Fatal, 10 None
Flight Conducted Under:	Part 91: General aviation - Skydiving		

Analysis

The airplane was at 1,250 ft above ground level carrying a load of skydivers. According to a skydiving instructor onboard the airplane, the jumpmaster leaned forward to assist a skydiver in exiting the airplane when the jumpmaster's reserve parachute inadvertently deployed and entered the airplane's slipstream. The jumpmaster attempted to pull the parachute back into the airplane but was pulled into the door frame and dragged out of the airplane. The jumpmaster, who appeared to be unconscious, descended to the ground beneath his streaming (unopened) reserve parachute without deploying his main parachute. The pilot maintained control of the airplane and landed safely. Examination of the jumpmaster's reserve parachute revealed that it was damaged by impact with the door frame, thus it did not deploy properly. It is likely that the jumpmaster failed to guard his reserve parachute ripcord, which was exposed on the front of his parachute, and the ripcord snagged on something as he attempted to assist the exiting skydiver, which caused the reserve parachute to deploy prematurely.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The jumpmaster's failure to guard the reserve parachute ripcord, which caused an inadvertent deployment of his reserve parachute.

Findings

Personnel issues	Use of equip/system - Passenger

Factual Information

History of Flight

Enroute-cruise	Miscellaneous/other (Defining event)

On October 14, 2016, about 1735 eastern daylight time, a Cessna 208, N208KM, was substantially damaged during a skydiving event over Marion County Airport (X35), Dunnellon, Florida. One of the 10 skydivers on board was fatally injured, and the commercial pilot and the other 9 skydivers were not injured. The airplane was registered to a private individual and operated by the National Parachute Test Center, Inc., (NPTC) under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a commercial skydiving flight. Visual meteorological conditions prevailed, and no flight plan was filed for the local flight, which departed X35 about 1700.

According to a report prepared by NPTC, in addition to the pilot, there were 8 jumpers, a jumpmaster, and a training advisor assigned to the flight. Before boarding the airplane, the training advisor, who was a skydiving instructor familiar with the airplane, instructed the jumpmaster on the procedure used to make static line jumps from the Cessna 208. Upon boarding the airplane, the jumpmaster elected not to hook up the static line of his main parachute. When questioned by the training advisor, the jumpmaster replied, "I am not going to jump, so I do not have to."

The flight departed and climbed to an altitude of 1,250 ft above ground level. According to the NPTC report, the first three skydivers exited the airplane uneventfully, and the fourth moved into position. The training advisor observed that the fourth skydiver seemed to hesitate, and the jumpmaster leaned forward toward him. As the fourth jumper exited the airplane, the training advisor noticed a flash of white and watched as the jumpmaster's reserve parachute deployed and entered the airplane's slipstream. The jumpmaster attempted to pull the parachute back into the airplane and was pulled into the door frame before being dragged out of the airplane. Observers on the ground watched as the jumpmaster descended beneath his streaming (unopened) reserve parachute to the ground. The ground observers reported that the jumpmaster made no movements, appeared to be unconscious, and did not deploy his main parachute. The pilot reported that he was able to maintain control of the airplane and land without further incident.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that the cargo door frame and fuselage were buckled. Inspection of the jumpmaster's main parachute by an FAA-certificated senior parachute rigger revealed that it was intact and remained in the deployment bag. Examination of the reserve parachute revealed that the injector spring was wrapped around the suspension lines. The deployment ring, connector snap, and part of the spreader bar were located midway up the suspension lines. The jump inspection booklet located on the parachute indicated that the reserve parachute was inspected 3 days before the accident. NPTC attributed the damage to the reserve parachute to impact with the door frame as the jumpmaster was pulled from the airplane.

The FAA inspector who examined the airplane reported that the jumpmaster was using a military-style parachute with the reserve parachute positioned below the chest. According to the FAA inspector, "the reason the reserve parachute deployed is unclear at this time but since the D ring [ripcord handle] is

exposed on the front of the parachute speculation is that the D ring may have accidently caught or snagged on another jumper or something in the aircraft." According to NPTC, the accident resulted from the jumpmaster's "failure to guard his Reserve Ripcord Handle" and "was compounded by [his] failure to exit the aircraft immediately" when his reserve parachute deployed.

Pilot Information

Certificate:	Commercial	**Age:**	67,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	5-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	October 22, 2015
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 6761 hours (Total, all aircraft), 2065 hours (Total, this make and model), 6615 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N208KM
Model/Series:	208 A	**Aircraft Category:**	Airplane
Year of Manufacture:	1989	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	20800150
Landing Gear Type:	Tricycle	**Seats:**	12
Date/Type of Last Inspection:	August 26, 2016 100 hour	**Certified Max Gross Wt.:**	8000 lbs
Time Since Last Inspection:	42 Hrs	**Engines:**	1 Turbo prop
Airframe Total Time:	11336.1 Hrs as of last inspection	**Engine Manufacturer:**	P&W CANADA
ELT:	C91A installed, not activated	**Engine Model/Series:**	PT6A-114
Registered Owner:	On file	**Rated Power:**	600 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	OCF,897 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	17:50 Local	**Direction from Accident Site:**	50°
Lowest Cloud Condition:	Scattered / 5000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	28°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Dunnellon, FL (X35)	**Type of Flight Plan Filed:**	None
Destination:	Dunnellon, FL (X35)	**Type of Clearance:**	VFR
Departure Time:	17:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Marion County Airport X35	**Runway Surface Type:**	
Airport Elevation:	65 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal, 9 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 10 None	**Latitude, Longitude:**	29.061666,-82.376663(est)

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	William Meenan; FAA/FSDO; Orlando, FL
Original Publish Date:	July 16, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94227