Aviation Investigation Final Report

Location:	Lowville, New York	**Accident Number:**	ERA18LA124
Date & Time:	April 8, 2018, 16:53 Local	**Registration:**	C-GMDQ
Aircraft:	Cirrus SR22	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was on a cross-country flight at 9,000 ft mean sea level, which was about 1,000 ft above clouds. At that time, the private pilot had the autopilot engaged and in navigation mode for the airplane to proceed directly to the next waypoint. An air traffic controller requested that the pilot turn right 20° or more, which the pilot complied with by switching the autopilot to heading mode and selecting the desired heading. Subsequently, the controller advised the pilot that he could proceed back on course. The pilot switched the autopilot back to navigation mode but did not select the next waypoint on the GPS. He realized immediately that he was returning to his previous navigation course and then selected the next waypoint on the GPS and again selected navigation mode on the autopilot. By the time he returned his attention to the primary flight display, the airplane was descending out of control through clouds, and the pilot subsequently activated the airplane's parachute system. The airplane descended via parachute and landed upright in a field, but wind gusts blew the parachute, which inverted the airplane. Examination of the wreckage revealed that during the hard landing, the nose landing gear collapsed and both main landing gear spread outward, which resulted in substantial damage to the primary structure of the airplane.

The primary flight display did not record any data. Thus, the investigation could not determine if the autopilot was engaged when the airplane departed controlled flight. However, regardless of whether or not the autopilot was engaged, it is likely that the pilot's attention was diverted to the GPS, which resulted in his failure to adequately monitor the airplane's attitude and maintain control of the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's diverted attention, which resulted in his inadequate monitoring of the airplane's attitude and a loss of control in flight.

Findings

Personnel issues	Attention - Pilot
Personnel issues	Monitoring equip/instruments - Pilot
Aircraft	(general) - Not attained/maintained

Factual Information

History of Flight

Enroute-cruise	Loss of control in flight (Defining event)
Uncontrolled descent	Miscellaneous/other
Landing	Hard landing

On April 8, 2018, about 1653 eastern daylight time, a Cirrus SR22, Canadian registration C-GMDQ, owned and operated by the private pilot, was substantially damaged during a hard landing, following a Cirrus Airframe Parachute System (CAPS) deployment near Lowville, New York. The Canadian-certificated private pilot and two passengers were not injured. The personal flight was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91. Instrument meteorological conditions prevailed, and an instrument flight rules flight plan was filed for the flight that departed Bedford County Airport (HMZ), Bedford, Pennsylvania. The intended destination for the flight was Montreal Mirabel International Airport (CYMX), Mirabel, Quebec, Canada.

The pilot reported that the airplane was in cruise flight at 9,000 ft mean sea level, which was 1,000 feet above clouds. At that time, the autopilot was engaged and in navigation mode to proceed direct to the next waypoint, which was Massena International Airport (MSS), Massena, New York. Air traffic control (ATC) requested that the pilot turn right 20° or more, which the pilot complied with by switching the autopilot to heading mode and selecting the desired heading. Subsequently, ATC advised the pilot that he could proceed back on course. The pilot selected the autopilot back to navigation mode but did not select direct MSS on the GPS. He realized immediately that he was returning to his previous navigation course and then selected direct MSS in the GPS and again selected navigation mode on the autopilot. By the time he returned his vision and attention to the primary flight display, the airplane was descending out of control through clouds. Additionally, the depicted horizon on the primary flight display (PFD) did not appear correct and the pilot activated the CAPS. The pilot reported a total flight experience of 292 hours; of which, 220 hours were in the same make and model as the accident airplane.

Examination of the wreckage by a Federal Aviation Administration inspector revealed that the airplane descended via parachute and landed upright in a field. Subsequently, after all occupants egressed, wind gusts blew the parachute, which inverted the airplane. Further examination of the damage by a National Transportation Safety Board structural engineer revealed that during the upright landing on firm ground, the nose landing gear collapsed and both main landing gear spread outward, which resulted in substantial damage to the primary structure of the airplane.

Examination of the PFD revealed that it did not record any data. A check of the PFD's serial number by the manufacturer revealed that it was 16 years old and had not had a software update in 12 years. As such, the PFD, multifunction display and autopilot did not record any data. Without the data, the investigation could not determine if the autopilot was engaged or disengaged at the time when the airplane departed controlled flight.

Pilot Information

Certificate:	Private	**Age:**	47,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	November 7, 2016
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	November 1, 2017
Flight Time:	292 hours (Total, all aircraft), 220 hours (Total, this make and model), 124 hours (Pilot In Command, all aircraft), 19 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cirrus	**Registration:**	C-GMDQ
Model/Series:	SR22	**Aircraft Category:**	Airplane
Year of Manufacture:	2003	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	0654
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	February 5, 2018 Annual	**Certified Max Gross Wt.:**	3400 lbs
Time Since Last Inspection:	15 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2706 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	C91 installed, not activated	**Engine Model/Series:**	IO-550-N
Registered Owner:	On file	**Rated Power:**	310 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	GTB,690 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	20:49 Local	**Direction from Accident Site:**	340°
Lowest Cloud Condition:	Few / 200 ft AGL	**Visibility**	1.37 miles
Lowest Ceiling:	Broken / 1000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots / None	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	310°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	29.92 inches Hg	**Temperature/Dew Point:**	-3°C / -6°C
Precipitation and Obscuration:	Light - None - Snow		
Departure Point:	Bedord, PA (HMZ)	**Type of Flight Plan Filed:**	IFR
Destination:	Mirabel (CYMX)	**Type of Clearance:**	IFR
Departure Time:	15:17 Local	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	43.821388,-75.571388(est)

Administrative Information

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Scott Gillson; FAA/FSDO; Latham, NY Brannon Mayer; Cirrus Design Corporation; Duluth, MN Mike Council; Continental Motors Inc; Mobile, AL
Original Publish Date:	May 29, 2019
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=97020