



Aviation Investigation Final Report

Location:	Montauk, New York	Accident Number:	ERA18LA253
Date & Time:	September 16, 2018, 16:06 Local	Registration:	N161DL
Aircraft:	Cirrus SR22	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot was taking off for a personal, cross-country flight. He reported that, at rotation, the pilot's seat "abruptly slid backwards to the outermost distance from the controls." As a result, the pilot could no longer reach the pedals to maintain directional control, and his aileron input could not counteract the airplane's left-turning tendency. The airplane subsequently departed the left side of the runway, struck trees and shrubs, and then came to rest upright. The wings, fuselage, and empennage sustained substantial damage.

According to the pilot, except for the pilot seat, the airplane performed as designed with no other anomalies noted. Examination of the pilot's seat revealed no anomalies with the installation, dimensions, or operation. The seat moved freely fore and aft with no binding or anomalous operation noted. During postaccident functional testing of the seat, when twisting forces to the right were applied to the seat and while being slid forward, the seat position locking pin could be partially engaged, but not all the pins would seat, and the control handle would not go fully down nor could it be forced into position. Straightening or forward movement of the seat resulted in full pin engagement with the control handle in the fully down position. Given this information, it is likely that the pilot applied a twisting force when moving the seat and did not fully engage the seat position locking pins before initiating the takeoff, which resulted in the seat subsequently sliding back as the airplane accelerated during takeoff and the pilot's subsequent loss of directional control.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to properly secure his seat before initiating the takeoff, which resulted in the

seat sliding back as the airplane accelerated during takeoff, his inability to reach the pedals, and the subsequent loss of directional control and impact with trees and shrubs.

Findings

Aircraft	Seat/cargo attach fitting - Incorrect use/operation
Personnel issues	Incorrect action performance - Pilot
Aircraft	Directional control - Not attained/maintained
Environmental issues	Tree(s) - Effect on operation

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Runway excursion
Takeoff	Collision with terr/obj (non-CFIT)

On September 16, 2018, at 1606 eastern daylight time, a Cirrus SR22, N161DL, was substantially damaged during collision with trees and terrain during takeoff from Montauk Airport (MTP), Montauk, New York. The pilot was not injured, and a passenger sustained minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight, which was conducted under the provisions of Title 14 *Code of Federal Regulations* Part 91.

The pilot provided a written statement and was interviewed by telephone. He said he completed the preflight inspection, engine run-up, and before-takeoff checks with no anomalies noted, and then positioned the airplane for takeoff from runway 24. The pilot advanced the throttle and tracked the runway centerline during the takeoff roll.

At rotation, the pilot's seat "abruptly slid backwards to the outermost distance from the controls." The pilot said that he could no longer reach the pedals to maintain directional control, and that aileron input was inadequate to counteract the airplane's left-turning tendency. The airplane departed the left side of the runway, struck trees and shrubs, and came to rest upright. According to the pilot, except for the pilot seat, the airplane performed as designed with no other anomalies noted.

The pilot stated that he had adjusted his seat prior to the flight "as normal" and had never had difficulty with the seat at any time in the past. He added that this was the third Cirrus SR22 that he had owned and had no history of seat issues with either of his previous two airplanes.

The pilot held a private pilot certificate with ratings for airplane single engine land and instrument airplane. His most recent Federal Aviation Administration (FAA) third class medical certificate was issued January 4, 2018. He reported 750 total hours of flight experience, all of which was in the accident airplane make and model.

According to FAA records, the airplane was manufactured in 2014. Its most recent annual inspection was completed October 15, 2017 at 187.9 total aircraft hours.

At 1654, the weather recorded at MTP included clear skies and variable winds at 4 knots. The temperature was 24°C, and the dew point was 19°C. The altimeter setting was 30.21 inches of mercury.

Examination of photographs revealed that the wings, fuselage, and empennage all sustained substantial impact damage. An FAA inspector who responded to the site said he could not enter the cockpit, as the door was either locked or impinged by impact damage.

Examination of the pilot's seat was performed by a manufacturer's representative under the supervision of an NTSB air safety investigator, and cabin safety specialist.

The examination revealed no anomalies with the installation, dimensions, or operation of the pilot's seat. The seat moved freely fore and aft, with no binding or anomalous operation noted. While seated in the pilot's seat, the manufacturer's representative applied fore, aft, and twisting forces to the seat to "unlock" the seat from a locked position. When "twisted to right while being slid forward" partial seat position locking pin engagement could be induced, but not all pins would seat and the control handle would not be fully down, and neither could it be forced into position. Straightening or forward movement of the seat resulted in full pin engagement with the control handle in the fully-down position.

According to the Pilot Operating Handbook and the placard on the center console, "CREW SEATS MUST BE LOCKED IN POSITION AND CONTROL HANDLES FULLY DOWN BEFORE FLIGHT"

Pilot Information

Certificate:	Private	Age:	65, Male
Airplane Rating(s):	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 3 With waivers/limitations	Last FAA Medical Exam:	January 4, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	750 hours (Total, all aircraft), 750 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cirrus	Registration:	N161DL
Model/Series:	SR22 Undesignat	Aircraft Category:	Airplane
Year of Manufacture:	2014	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4128
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 15, 2017 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	248 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-550-N
Registered Owner:		Rated Power:	310 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:	KMTP, 7 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	20:54 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	24°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Montauk, NY (MTP)	Type of Flight Plan Filed:	None
Destination:	East Hampton, NY (HTO)	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	MONTAUK MTP	Runway Surface Type:	Asphalt
Airport Elevation:	6 ft msl	Runway Surface Condition:	Dry
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	3246 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	41.076667,-71.920555(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	Jeff Rose; FAA/FSDO; Farmingdale, NY Brad Miller; Cirrus Aircraft; Duluth, MN
Original Publish Date:	April 13, 2020
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98309

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](#).