



Aviation Investigation Final Report

Location:	New Shoreham, Rhode Island	Accident Number:	ERA21LA371
Date & Time:	July 27, 2021, 19:30 Local	Registration:	N110CG
Aircraft:	MOONEY AIRCRAFT CORP. M20K	Aircraft Damage:	Substantial
Defining Event:	Runway excursion	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during his normal preflight procedures, he latched, but did not lock, the baggage door, and there were no problems with the latch. During the takeoff roll, at rotation speed, his wife, who was in the right cockpit seat, noticed that the baggage door had opened. Fearing that his dogs in the rear seat would exit the airplane, he decided to abort the takeoff. The airplane departed the end of the runway, through the overrun, and down an embankment before colliding with a perimeter fence, resulting in substantial damage to the right wing. A post-accident examination of the baggage door and latching hardware revealed no malfunctions or anomalies that would have precluded normal operation. There was a placard inside the cabin that required locking the baggage door as the last step to securing it.

Probable Cause and Findings

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

The pilot's improper decision to reject the takeoff at an excessive speed, resulting in a runway excursion and collision with a fence. Contributing to the accident was the pilot's failure to lock the door as required by the placarded door closing procedures.

Findings

Personnel issues	Decision making/judgment - Pilot
Personnel issues	Forgotten action/omission - Pilot
Aircraft	Cargo/baggage doors - Incorrect use/operation

Factual Information

History of Flight

Takeoff	Miscellaneous/other
Takeoff	Runway excursion (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial; Military	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	March 24, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 20, 2021
Flight Time:	4864 hours (Total, all aircraft), 14 hours (Total, this make and model), 4125 hours (Pilot In Command, all aircraft), 121 hours (Last 90 days, all aircraft), 54 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY AIRCRAFT CORP.	Registration:	N110CG
Model/Series:	M20K	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	25-0383
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 1, 2021 Annual	Certified Max Gross Wt.:	3200 lbs
Time Since Last Inspection:	14 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4158 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	TSIO-520-NB
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:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBID, 105 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	19:56 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 7000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.92 inches Hg	Temperature/Dew Point:	23°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Shoreham, RI	Type of Flight Plan Filed:	None
Destination:	North Kingstown, RI (OQU)	Type of Clearance:	VFR flight following
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	BLOCK ISLAND STATE BID	Runway Surface Type:	Asphalt
Airport Elevation:	107 ft msl	Runway Surface Condition:	Dry
Runway Used:	10/28	IFR Approach:	None
Runway Length/Width:	2502 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.17,-71.58(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Christi Cushing; FAA/FSDO; Burlington, MA
Original Publish Date:	May 4, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=103913

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).