Aviation Investigation Final Report

Location:	KENT ISLAND, Maryland	**Accident Number:**	IAD98LA099
Date & Time:	August 22, 1998, 19:45 Local	**Registration:**	N6532U
Aircraft:	Mooney M-20C	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot began the takeoff roll from the sod runway 'using a soft field technique.' He applied back pressure on the yoke and then full throttle. The pilot reported the engine provided full takeoff power. Witnesses reported the airplane in a nose-high attitude as it dragged its tail the length of the runway. The airplane went off the departure end of the runway and came to rest in the Chesapeake Bay. Examination of the airplane after the accident revealed the flaps were fully retracted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's improper takeoff technique and his failure to abort the takeoff.

Findings

Occurrence #1: DRAGGED WING,ROTOR,POD,FLOAT OR TAIL/SKID
Phase of Operation: TAKEOFF - ROLL/RUN

Findings
1. (C) SHORT FIELD TAKEOFF/PROCEDURE - IMPROPER - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings
2. (C) ABORT - NOT PERFORMED - PILOT IN COMMAND

Factual Information

On August 22, 1998, at 1945 eastern daylight time, a Mooney M-20C, N6532U, was substantially damaged after a loss of control during takeoff from runway 28 at the Kentmorr Airport (3W3), Kent Island, Maryland. The airplane came to rest submerged in the Chesapeake Bay. The certificated commercial pilot and two passengers were not injured. Visual meteorological conditions prevailed for the personal flight that originated at 3W3, at 1945. No flight plan was filed for the flight conducted under 14 CFR Part 91.

The pilot was interviewed by a Federal Aviation Administration (FAA) Aviation Safety Inspector by telephone on two occasions. The Inspector documented each conversation in a Record of Telephone call. The pilot said:

"I took off towards the Bay. I used a soft field take off technique procedure. I used all the available runway. I provided back elevator pressure, then applied full power. I then checked that the engine was developing full power by looking at the instruments. When the airplane broke ground, approximately before the end of the runway, I can't tell exactly where, but it was before the end of the runway. At that point, the airplane seemed to settle into the water."

The pilot said he was beyond the point where he could safely abort the takeoff when he "...determined there was something wrong..." and ditched the airplane in the water.

When questioned about the airplane's configuration and power output, the pilot stated the flaps were set in the takeoff position (15 degrees), and that the engine RPM was "...just under red line."

A witness who resides near the departure end of runway 28 provided a statement to the FAA Inspector. He said:

"It sounded like he did a run-up all right...Everything seemed all right. The nose came up. He was in a soft field attitude. The tail was way down, actually dragging the ground. When he passed by our house, he was committed to go. He dragged the tail to the gravel road. He just went right off the end."

The witness identified ground scars near the shore where the undercarriage of N6532U had contacted the ground. According to the Inspector:

"The strobe light from the underside of the Mooney was found approximately 12 feet from the shore's edge."

The airplane was recovered from the Chesapeake Bay on August 25,1998. The recovery was

supervised by the FAA Inspector and no further damage was sustained by N6532U. Examination of the airplane by the Inspector revealed no pre-impact anomalies and the flaps and flap indicator in the fully retracted position. Control continuity was established to all flight control surfaces except the left aileron, which was damaged by impact. Movement of the flight controls revealed the "..left aileron rod moved fully and freely."

The pilot's most recent medical certificate was issued on June 30, 1998. On that date the pilot reported he had 310 hours of flight experience. The pilot submitted his NTSB Pilot/Operator report approximately 13 months after the accident. In the report, the pilot stated he had 550 hours of flight experience.

Pilot Information

Certificate:	Commercial	**Age:**	21,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	June 30, 1997
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	550 hours (Total, all aircraft), 50 hours (Total, this make and model), 500 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	N6532U
Model/Series:	M-20C M-20C	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	2315
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	2575 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	O-360-AID
Registered Owner:	GUS YIALAMAS	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	ESN ,74 ft msl	**Distance from Accident Site:**	15 Nautical Miles
Observation Time:	19:55 Local	**Direction from Accident Site:**	130°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	90°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	26°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(3W3)	**Type of Flight Plan Filed:**	None
Destination:	TRENTON , NJ (TTN)	**Type of Clearance:**	None
Departure Time:	19:45 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	KENTMORR AIRPORT 3W3	**Runway Surface Type:**	Grass/turf
Airport Elevation:	10 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	28	**IFR Approach:**	None
Runway Length/Width:	2050 ft / 75 ft	**VFR Approach/Landing:**	None

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:**	38.989875,-76.299171(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	FRANK S PHILLIPS; BALTIMORE , MD
Original Publish Date:	September 7, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=43784