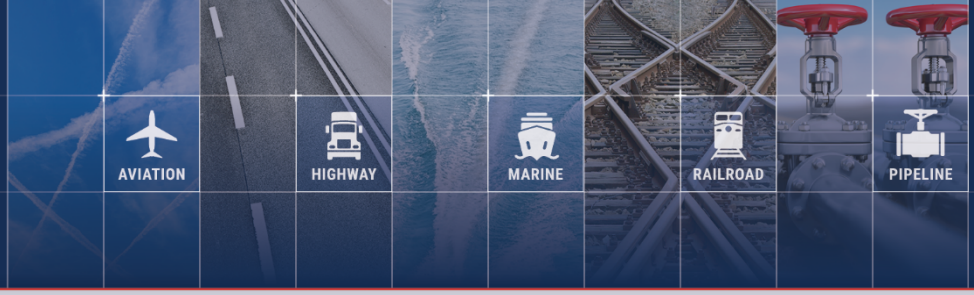

Aviation Investigation Final Report

Location:	Bayport, New York	**Accident Number:**	ERA10LA111
Date & Time:	January 9, 2010, 12:55 Local	**Registration:**	N97223
Aircraft:	Stinson 108	**Aircraft Damage:**	Substantial
Defining Event:	Fuel contamination	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot stated that during cruise flight at approximately 600 feet, the engine began to run rough. He applied the carburetor heat and the engine cleared up briefly, before losing power again. The pilot subsequently made a forced landing on a shoreline and the airplane came to rest inverted. Examination of the engine revealed that when the main fuel gascolator was removed, debris was discovered in the bottom of the bowl. The filter was removed and also contained debris. The examination did not reveal any preimpact mechanical malfunctions. Additionally, the engine was not susceptible to carburetor icing, given the temperature and dew point at the time of the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power during cruise flight due to fuel contamination.

Findings

Aircraft	Fuel - Fluid condition

Factual Information

History of Flight

Enroute-cruise	Fuel contamination (Defining event)

On January 9, 2010, at 1255 eastern standard time, a Stinson 108, N97223, experienced a total loss of engine power during cruise, near Bayport, New York. The private pilot and passenger were not injured and the airplane was substantially damaged during the subsequent forced landing. The flight was operated as a personal flight under the provisions of 14 Code of Federal Regulations Part 91, and no flight plan was filed. Visual meteorological conditions prevailed at the time of the accident. The flight originated from Bayport Aerodrome (23N), Bayport, New York, at 1240.

The private pilot stated that during cruise flight at approximately 600 feet, the engine began to run rough. He said that he applied carburetor heat and subsequently the engine cleared up; therefore, he decided to disengage the carburetor heat. When he did this, the engine again began to run rough again and lose power. The engine never regained full power although the pilot re-engaged the carburetor heat. The pilot subsequently made a forced landing on a shoreline and the airplane nosed over.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that the airplane landed in water on a shoreline. The airframe was buckled and the airplane nosed over inverted into 3 feet of salt water. The airframe and flight control system components revealed no evidence of preimpact mechanical malfunction. Examination of the engine did not reveal any mechanical malfunctions. Twenty gallons of fuel was defueled from the fuel tanks. The fuel was a mixture of aviation and automotive gasoline. The main fuel gascolator was removed, and debris was discovered in the bottom of the bowl. The carburetor inlet filter was removed and also contained debris.

The current ambient temperature was 28 degrees Fahrenheit, with a dew point of 9 degrees Fahrenheit. Review of the icing probability chart revealed the airplane was not flown in conditions conducive to carburetor icing.

Pilot Information

Certificate:	Private	**Age:**	60,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	January 12, 2010
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	November 1, 2009
Flight Time:	1500 hours (Total, all aircraft), 400 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	**Registration:**	N97223
Model/Series:	108	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	108-223
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	November 1, 2009 Annual	**Certified Max Gross Wt.:**	2280 lbs
Time Since Last Inspection:	20 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	1550 Hrs as of last inspection	**Engine Manufacturer:**	FRANKLIN
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	6A4150 SERIES
Registered Owner:	OLSON ROBERT B	**Rated Power:**	150 Horsepower
Operator:	OLSON ROBERT B	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	ISP,99 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	12:56 Local	**Direction from Accident Site:**	140°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	14 knots / 21 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	340°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.01 inches Hg	**Temperature/Dew Point:**	-2°C / -13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bayport, NY (23N)	**Type of Flight Plan Filed:**	None
Destination:	Bayport, NY (23N)	**Type of Clearance:**	None
Departure Time:	12:40 Local	**Type of Airspace:**	

Airport Information

Airport:	Bayport Aerodrome 23N	**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	40.758609,-73.053611(est)

Administrative Information

Investigator In Charge (IIC):	Alleyne, Eric
Additional Participating Persons:	Nick Tsokris; FAA/FSDO; Farmingdale, NY
Original Publish Date:	June 17, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=75255

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.