Aviation Investigation Final Report

Location:	BROOKLYN, New York	**Accident Number:**	NYC97GA177
Date & Time:	August 30, 1997, 14:10 Local	**Registration:**	N2362T
Aircraft:	Navion G	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

During takeoff, just after becoming airborne, the engine lost power. The pilot landed straight ahead, and the airplane's landing gear struck the top of the airport perimeter fence. The airplane came to rest beyond the fence. Investigation revealed the airplane was equipped with one wing tank of 39 gallons and two tip tanks of 35 gallons each. The tip tanks were placard for 'Level Flight Only.' The fuel selector was a 4-position valve with main tank, left tip, right tip, and off. There was no fuel transfer pump. The main tank was found to be full, and an estimated 5 to 10 gallons was in each tip tank. The fuel system remained intact and no leaks were visible. The pilot reported he had the fuel selector on the 'mains' and did not change it. A check of the fuel system failed to find any discrepancy. The engine was test run after the accident with no discrepancy noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's inadequate preflight by failing to ensure the fuel selector was properly positioned for takeoff, which resulted in fuel starvation, loss of engine power, and a forced landing after takeoff.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. (C) FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND
3. (C) FLUID,FUEL - STARVATION

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings
4. OBJECT - FENCE

Factual Information

On August 30, 1997, about 1410 eastern daylight time, a Navion G, N2362T, operated by the US Coast Guard, was substantially damaged during a forced landing after takeoff from the US Coast Guard Air Station, Brooklyn, New York. The certificated commercial pilot, private pilot, and observer were not injured. Visual meteorological conditions prevailed for the aerial observation flight. The flight was operated on a Visual Flight Rules (VFR) flight plan and was conducted under 14 CFR Part 91.

In the NTSB Pilot/Operator Aircraft Accident Report, the pilot stated:

"All components checked normal. Flaps were set for T/O, Fuel selector set for mains tank, Electric fuel pump set on low, I opened the throttle to full power, 2700 RPM, Rotated at 80 MPH at approx. 1,000 feet down runway, at 50 feet altitude the engine started to miss and loose power, my co-pilot attempted to regain power by turning electric fuel pump to high, he checked mags and fuel settings but could not restore power. I lowered the nose...of the aircraft to gain maximum glide to clear fence at the end of the runway. The nose wheel and main landing gear made contact with the top of the fence. Executed emergency landing. All crew members exited with no injuries...."

An Inspector from the Federal Aviation Administration (FAA) reported:

"...During the investigation it was noted that the aircraft control setting were set as crew mentioned in their statement. On 13 November 1997, a test cell run was accomplished on the engine at Mattituck Airbase Inc., Mattituck, NY...No defects and/or discrepancies were noted during the engine run...."

The FAA inspector also reported that after the pilot experienced a power loss, he continued straight ahead, and the landing gear struck a perimeter fence for the runway. The airplane then struck the asphalt surface beyond the perimeter fence, at which point, the nose and the left main landing gear collapsed. The airplane came to rest 287 feet beyond the fence.

The investigation revealed that the airplane was equipped with one wing tank of 39 gallons, and two tip tanks of 35 gallons each. The tip tanks were placard for "Level Flight Only." The fuel selector was a 4-position valve with main tank, left tip, right tip, and off. There was no fuel transfer pump.

The main tank was found to be full, and an estimated 5 to 10 gallons was in each tip tank. The fuel system remained intact and no leaks were visible.

A check of FAA records for the air station revealed specifications for one heliport and

no fixed wing runway. The investigation revealed the Coast Guard was using a portion of an abandon fixed wing runway for light plane operations. The runway was 2,500 feet long, and was fenced to keep vehicles, and pedestrian traffic clear.

Pilot Information

Certificate:	Commercial; Private	**Age:**	67,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	September 14, 1995
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	4603 hours (Total, all aircraft), 120 hours (Total, this make and model), 4300 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Navion	**Registration:**	N2362T
Model/Series:	G G	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	NAV-4-2362
Landing Gear Type:	Retractable - Tricycle	**Seats:**	5
Date/Type of Last Inspection:	June 1, 1997 Annual	**Certified Max Gross Wt.:**	3315 lbs
Time Since Last Inspection:	38 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2698 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-520-B6B
Registered Owner:	ISLAND AIRWAYS	**Rated Power:**	285 Horsepower
Operator:	US COAST GUARD	**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:	KJF ,13 ft msl	**Distance from Accident Site:**	7 Nautical Miles
Observation Time:	13:51 Local	**Direction from Accident Site:**	75°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	26°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NOP)	**Type of Flight Plan Filed:**	Military VFR
Destination:		**Type of Clearance:**	None
Departure Time:	14:10 Local	**Type of Airspace:**	Class B

Airport Information

Airport:	BROOKLYN CGAS NOP	**Runway Surface Type:**	Asphalt
Airport Elevation:	16 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	30	**IFR Approach:**	None
Runway Length/Width:	2500 ft / 250 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	40.66024,-74.009567(est)

Administrative Information

Investigator In Charge (IIC):	Hancock, Robert
Additional Participating Persons:	JOSE A SERRANO; GARDEN CITY , NY GEORGE HOLLINGSWORTH; MOBIL , AL JOHN KNOTS, LT USCG; BROOKLYN , NY
Original Publish Date:	October 30, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=39290