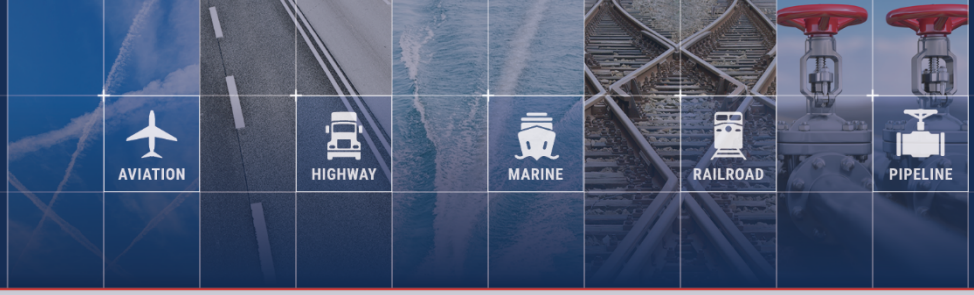

Aviation Investigation Final Report

Location:	Wrightsville Bh, North Carolina	**Accident Number:**	ATL05LA154
Date & Time:	August 28, 2005, 02:12 Local	**Registration:**	N88PS
Aircraft:	Samson Seawind 3000	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The non-instrument-rated private pilot was observed to drink an unknown quantity of one or more alcoholic beverages within 2 hours of the flight that departed about 0208 and crashed 4 minutes later. Radar data showed the flight headed eastbound to the coast, climbed to about 1,200 feet, then crossed over the coastline. Immediately there after, it entered a 360-degree turn to the right and descended rapidly into the ocean. Reported weather conditions at 0153 included ceilings broken at 300 feet, temperature 23 degrees centigrade, and dew point 22 degrees centigrade. Flight control and engine control continuity could not be determined from the available wreckage, however, the size of the recovered pieces was consistent with a high-energy impact with the water. According to FAA advisory circular 60-4A, "Lack of natural horizon or surface reference is common on over-water flights, at night, and especially at night in extremely sparsely populated areas or in low visibility conditions...can provide inaccurate visual information for aligning the aircraft correctly with the actual horizon. The disoriented pilot may place the aircraft in a dangerous attitude." The toxicology report for specimens from the pilot noted ethanol and butalbital (a prescription barbiturate) in muscle and evidence of putrefaction. A glass pipe found on the pilot tested positive for THC (tetrahydrocannabinol), the primary active substance in marijuana.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper preflight decision to attempt night VFR flight into IMC, which resulted in an

inflight encounter with weather and the pilot's subsequent loss of control of the airplane due to spatial disorientation.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings
1. WEATHER CONDITION - LOW CEILING
2. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: DESCENT - UNCONTROLLED

Findings
3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
4. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On August 28, 2005 at 0212 eastern daylight time, a Samson Seawind 3000 experimental airplane, N88PS, registered to Samson Flying Service and operated by the private pilot, collided into the Atlantic Ocean about 2 miles off the coast of Wrightsville Beach, North Carolina. The personal flight was operated under the provisions of 14 CFR Part 91 with no flight plan filed. Instrument meteorological conditions prevailed. The private pilot and the passenger received fatal injuries, and the airplane was destroyed. The flight departed Wilmington International Airport (ILM), Wilmington, North Carolina, about 0208.

A review of radar data revealed a target with a transponder code of 1200 was detected by radar about 0208 in the vicinity of ILM at an altitude of 400 feet. The data showed the flight headed eastbound to the coast and climbed to approximately 1,200 feet. The flight then crossed over the coastline and continued eastbound toward open ocean. Immediately after the flight crossed over the coastline, its ground track entered a 360-degree turn to the right, and it descended rapidly into the ocean. According to an ILM Public Safety operations report, about 0220 the 911 center advised that a Bald Head Island resident reported that a small airplane may have gone down off the south end of the island. By about 0245, additional reports were received, and a search and rescue effort was initiated. Wreckage debris was found floating in the water off Wrightsville Beach about 1140.

PERSONNEL INFORMATION

The pilot held a private pilot certificate with ratings for airplane single-engine land and single-engine sea. His most recent Federal Aviation Administration (FAA) third-class airman medical certificate was issued April 28, 2005, with no waivers or limitations. On his application for the medical certificate, the pilot reported 5,000 total civilian flight hours.

AIRCRAFT INFORMATION

The Samson Seawind 3000 experimental airplane, serial number 15, was an amateur-built, experimental airplane powered by a Lycoming IO-540-K1A5 engine. The airplane was configured with 4 seats and was capable of landing on water or on land.

METEOROLOGICAL INFORMATION

A review of recorded weather data from Wilmington International Airport revealed at 0153 conditions were winds from 020 at 5 knots, visibility 8 statute miles, cloud conditions broken at 300 feet, temperature 23 degrees centigrade, dew point 22 degrees centigrade, altimeter

setting 29.89 inches.

WRECKAGE AND IMPACT INFORMATION

Small pieces of composite debris from the airplane's fuselage and tail section and a section of the engine mount were recovered. The remainder of the airplane was not recovered. Flight control and engine control continuity could not be determined from the available wreckage. The recovered pieces showed no evidence of soot or fire damage.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot's body was recovered from the ocean on August 30, 2005, and an autopsy was performed the same day by the Office of the Chief Medical Examiner, North Carolina Department of Health and Human Services, Chapel Hill, North Carolina. The report stated the cause of death was "multiple blunt force injuries."

The medical examiner's report stated that "a glass pipe containing a brown substance" accompanied the pilot's body. The report further stated, "toxicological analysis of postmortem tissues is not performed. Toxicological analysis of the brown substance found within the glass pipe is positive for THC."

Toxicological testing of muscle specimens from the pilot was performed on September 2, 2005, by the FAA Forensic Toxicology Research Team, Oklahoma City, Oklahoma. The report stated the following were detected in the muscle: 115 (mg/dL, mg/hg) ethanol, 1 (mg/dL, mg/hg) n-butanol, 11 (mg/dL, mg/hg) n-propanol, and 1.207 (ug/ml, ug/g) butalbital.

ADDITIONAL INFORMATION

According to witness statements obtained by a New Hanover County Sheriff's Department detective, Wilmington, North Carolina, a bartender at a local bar recalled the pilot ordered a "kamikaze shot" and paid for it at 0028. The bartender stated she later made another drink for him and later saw him dancing with a woman whom other witnesses identified as the passenger. Another employee of the bar stated the pilot was "drinking kamikazes, not as shots but as drinks. He bought one, that I saw, and I served a few more that night to a group of people that I figured were going to him."

Title 14 CFR 91.17, "Alcohol or drugs," states: "No person may act or attempt to act as a crewmember of a civil aircraft -- (1) Within 8 hours after the consumption of any alcoholic beverage; (2) While under the influence of alcohol; (3) While using any drug that affects the person's faculties in any way contrary to safety."

According to statements obtained by ILM Public Safety and the New Hanover County Sheriff's Office, the owner of a repair station at the airport stated the pilot had contacted him about a week before the accident and stated that he had landed the seaplane in the waterway, and it

was "swamped" by a passing yacht. The repair station owner reported that the pilot told him that saltwater entered the cockpit, and the airplane "limped" back to the airport.

The FAA Airplane Flying Handbook, FAA-H-8083-3, chapter 10, states the following about night flying: "Night flying requires that pilots be aware of, and operate within, their abilities and limitations....Night flying is very different from day flying and demands more attention of the pilot. The most noticeable difference is the limited availability of outside visual references. Therefore, flight instruments should be used to a greater degree."

According to FAA advisory circular 60-4A "Pilot's Spatial Disorientation:" "Lack of natural horizon or surface reference is common on over-water flights, at night, and especially at night in extremely sparsely populated areas or in low visibility conditions. A sloping cloud formation, an obscured horizon, a dark scene spread with ground lights and stars, and certain geometric patterns of ground lights can provide inaccurate visual information for aligning the aircraft correctly with the actual horizon. The disoriented pilot may place the aircraft in a dangerous attitude."

Pilot Information

Certificate:	Private	**Age:**	56,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Unknown
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	April 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	5000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Samson	**Registration:**	N88PS
Model/Series:	Seawind 3000	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	15
Landing Gear Type:	Amphibian	**Seats:**	4
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	3400 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:		**Engine Model/Series:**	IO-540-K1A5
Registered Owner:	Samson Flying Service	**Rated Power:**	300 Horsepower
Operator:	Bracey Myron Bobbitt	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	KILM,32 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:	01:53 Local	**Direction from Accident Site:**	286°
Lowest Cloud Condition:		**Visibility**	8 miles
Lowest Ceiling:	Broken / 300 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	20°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.88 inches Hg	**Temperature/Dew Point:**	23°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wilmington, NC (KILM)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	02:08 Local	**Type of Airspace:**	

Airport Information

Airport:	Wilmington International KILM	**Runway Surface Type:**	
Airport Elevation:	32 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal	**Latitude, Longitude:**	34.254722,-77.738609

Administrative Information

Investigator In Charge (IIC):	Gagne, Catherine
Additional Participating Persons:	Pat Bruce; FAA - Greensboro FSDO - 05; Greensboro, NC
Original Publish Date:	November 29, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=62341