



Aviation Investigation Final Report

Location:	Clyde, Ohio	Accident Number:	CEN10LA418
Date & Time:	July 19, 2010, 18:15 Local	Registration:	N5855G
Aircraft:	Cessna A188B	Aircraft Damage:	Substantial
Defining Event:	Collision with terr/obj (non-CFIT)	Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot was on his fourth spray pass of the aerial application flight when the airplane impacted a grain auger and terrain. The grain auger, approximately 30 feet in height, was located adjacent to the field next to a round farm building and was displaced approximately 160 feet during the accident. The pilot reported no recollection of the accident. Examination of the airplane and engine revealed no mechanical anomalies prior to the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from a grain auger during aerial application maneuvers.

Findings

Aircraft	Altitude - Not attained/maintained
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Maneuvering

Collision with terr/obj (non-CFIT) (Defining event)

On July 19, 2010, approximately 1815 eastern daylight time, a Cessna A188B single-engine airplane, N5855G, sustained substantial damage when it impacted farm equipment and terrain near Clyde, Ohio. The commercial pilot, who was the sole occupant, sustained serious injuries. The airplane was registered to and operated by Gibbs Aero Spray, Inc., Fremont, Ohio. Visual meteorological conditions prevailed, and a flight plan was not filed for the Title 14 Code of Federal Regulations Part 137 aerial application flight. The local flight departed approximately 1745.

According to the operator, the pilot was on his fourth spray pass of the aerial application flight when the airplane impacted a grain auger with its left wing. The grain auger, approximately 30 feet in height, was located adjacent to the field next to a round farm building and was displaced approximately 160 feet during the accident. The airplane came to rest upright and the pilot exited the airplane. The pilot stated to a witness who responded to the accident that the airplane engine lost power. During a telephone conversation with the pilot on September 23, 2010, the pilot stated he had no recollection of the accident. He was told by company personnel that he began flying on the day of the accident at 0700 and had a 30 minute lunch break.

Examination of the airplane revealed the left wing was bent and twisted, the fuselage was fragmented, and the right wing was bent. The crankshaft flange and propeller assembly were separated from the engine and came to rest in the between the grain auger and main wreckage. The engine was retained for further examination.

According to the engine maintenance records, the engine underwent its most recent annual inspection on March 15, 2010, at a total time of 654 hours since major overhaul. The engine had accumulated 854.8 hours since major overhaul at the time of the accident.

On September 23, 2010, at the facilities of Teledyne Continental Motors (TCM), Mobile, Alabama, the IO-520-D (serial number 281247) engine was examined by the Safety Board investigator-in-charge, and representatives from TCM and Cessna Aircraft Company. Examination and disassembly of the engine revealed did not reveal any pre-impact anomalies that would have prevented normal operation and production of rated horsepower. Examination of the crankshaft flange fracture surfaces displayed 45-degree shear lips that were consistent with a torsional overload failure.

Pilot Information

Certificate:	Commercial	Age:	24, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	May 21, 2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 1, 2008
Flight Time:	1580 hours (Total, all aircraft), 1129 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5855G
Model/Series:	A188B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	18801156
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	March 15, 2010 Annual	Certified Max Gross Wt.:	4000 lbs
Time Since Last Inspection:	200 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2985 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	Not installed	Engine Model/Series:	IO-520-D
Registered Owner:	GIBBS AERO SPRAY INC	Rated Power:	285 Horsepower
Operator:	GIBBS AERO SPRAY INC	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	OGIG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Fremont, OH (03OH)	Type of Flight Plan Filed:	None
Destination:	Fremont, OH (03OH)	Type of Clearance:	None
Departure Time:	18:00 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	41.418334,-83.017219(est)

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Thomas J Leahy; Federal Aviation Administration; Cleveland, OH Jan Smith; Cessna Aircraft Company; Wichita, KS John Kent; Teledyne Continental Motors; Mobile, AL
Original Publish Date:	April 7, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=76704

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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](#).