



Aviation Investigation Final Report

Location:	Coy, Arkansas	Accident Number:	CEN13LA414
Date & Time:	July 10, 2013, 14:30 Local	Registration:	N2239B
Aircraft:	AYRES CORPORATION S2R-T41	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Flight test		

Analysis

The pilot was conducting a maintenance flight to troubleshoot the airplane's spray system in preparation for the coming agricultural season. During the landing flare, the airplane's propeller went into reverse thrust and the airplane settled to the grass runway and landed hard. The airplane bounced during the landing, departed the runway, and the left wing hit a stationary tank. The airplane continued across two ditches and came to rest on its nose. A postaccident examination of the airplane revealed that the left wing spar was bent. An examination of the engine, propeller, and related systems revealed that the linkage to the propeller governor had not been rigged properly; the investigation found no anomalies with the remaining engine and airplane systems.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The propeller's uncommanded reverse thrust during the landing flare due to improper rigging of the propeller's governor linkage.

Findings

Aircraft	Propeller governor - Incorrect service/maintenance
Aircraft	(general) - Attain/maintain not possible

Factual Information

History of Flight

Landing-flare/touchdown	Loss of engine power (partial)
Landing-flare/touchdown	Hard landing (Defining event)
Landing-landing roll	Loss of control on ground

On July 10, 2013, about 1430 central daylight time, an Ayres Corporation S2R-T41 airplane, N2239B, was substantially damaged while landing near Coy, Arkansas. The commercial pilot was not injured. The airplane was registered to and operated by Bells Ag Service Inc., under the provisions of 14 Code of Federal Regulations Part 91 as maintenance flight. Visual meteorological conditions prevailed for the flight, which operated without a flight plan. The local flight originated approximately 1420.

During the maintenance flight, the pilot was troubleshooting the spray system on the airplane in order to prepare the airplane for the coming agricultural season. During the landing flare, the airplane's propeller went into reverse thrust and the airplane settled to the grass runway and landed hard. The airplane bounced during the landing, departed the runway environment, and hit a stationary tank with the left wing. The airplane continued across two ditches and came to rest on its nose.

A postaccident examination of the airplane revealed that the left wing spar was bent. An examination of the engine, propeller, and related systems revealed that the linkage to the propeller governor had not been rigged properly. An examination of the remaining engine and airplane systems revealed no anomalies.

Pilot Information

Certificate:	Commercial	Age:	58
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	January 24, 2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	3100 hours (Total, all aircraft), 342 hours (Total, this make and model), 3100 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AYRES CORPORATION	Registration:	N2239B
Model/Series:	S2R-T41	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	T41-217
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:		Engines:	1 Turbo prop
Airframe Total Time:	6000 Hrs at time of accident	Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	PT6A SER
Registered Owner:	BELLS AG SERVICE INC	Rated Power:	750 Horsepower
Operator:	BELLS AG SERVICE INC	Operating Certificate(s) Held:	Agricultural aircraft (137)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KSGT, 224 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	14:15 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Few / 5000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots / None	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	37°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Coy, AR (NA)	Type of Flight Plan Filed:	None
Destination:	Coy, AR (NA)	Type of Clearance:	None
Departure Time:	14:20 Local	Type of Airspace:	

Airport Information

Airport:	Private NA	Runway Surface Type:	Grass/turf
Airport Elevation:	200 ft msl	Runway Surface Condition:	Dry
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	3000 ft / 50 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	34.526943,-91.872497(est)

Administrative Information

Investigator In Charge (IIC):	Rodi, Jennifer
Additional Participating Persons:	Sid Lemoine; FAA Flight Standards District Office; Little Rock, AR
Original Publish Date:	March 13, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=87486

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