

National Transportation Safety Board - Aircraft Accident/Incident Database

Accident Rpt# CEN10LA245	05/09/2010 1545 CDT	Regis# N144TJ	Pine Bluff, AR	Apt: Girder Field Airport PBF
Acft Mk/Mdl GROSS COZY-III		Acft SN 452	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl LYCOMING O320 E2D		Acft TT 600	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: RICHARD J HUGHES		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Narrative

On May 9, 2010, about 1545 central daylight time, a Gross Cozy III experimental amateur built airplane, N144TJ, was substantially damaged during an off-airport forced landing at Pine Bluff, Arkansas. The solo pilot sustained minor injuries and five persons on the ground sustained minor injuries. The airplane was owned and operated by a private individual. Visual meteorological conditions (VMC) prevailed at the time of the accident and a flight plan had not been filed for the 14 Code of Federal Regulations Part 91 personal flight. The airplane had departed Monroe Regional Airport (MLU), Monroe, Louisiana, about 1510, and was enroute to Rochester International Airport (RST), Rochester, Minnesota.

The airplane was in cruise flight at 4,500 feet mean sea level (MSL) when the cockpit canopy suddenly opened to about a 90 degree up position. According to the pilot his headset and several other loose items in the cockpit immediately departed the airplane and debris struck and damaged the pusher propeller on the rear of the airplane. The pilot subsequently reported a "large vibration" in the engine. With the engine producing partial power, the pilot headed for the nearest airport about 9 miles away and began an emergency descent. Approximately four miles from the airport the engine experienced a total loss of power and the pilot executed a forced landing on a busy five lane road in the city limits. After missing several vehicles, the airplane struck and damaged the rear of an automobile. The airplane then struck several sign posts and came to rest in a ditch on the side of the road.

The airplane was equipped with a right side hinged canopy which functioned as the front windshield, side windows, cabin roof, and was the only access to and from the cockpit. A primary latch lever mounted on the cockpit side wall operated front and rear hooks which engaged two latch studs installed on the lower left edge of the canopy. A spring steel safety catch mounted at the bottom of the primary latch lever would prevent the latch from opening when a latch pin at the bottom of the lever was properly engaged.

In the event the primary latch inadvertently opened, a secondary latch system was designed to catch the partially open canopy and prevent the canopy from going to the full open position. The secondary latch system had a spring steel hook installed on the left side of the canopy which engaged a corresponding latch stud installed on the cockpit side wall.

An examination of the canopy primary latch system did not disclose any anomalies. An examination of the secondary latch system showed an overstress fracture of the spring steel hook which had separated. The separated portion was found inside the cockpit. Additionally, the engine's propeller damage was consistent with debris, from the cockpit, striking the propeller when the canopy opened in-flight. During the accident, the airplane's left canard and wing were substantially damaged. The engine also appeared to have partially separated from its mount.

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Accident Rpt# CEN12CA029 10/15/2011 1115 CDT Regis# N29HT Blair, NE Apt: Blair Municipal BTA
Acft Mk/Mdl HUNT SPARROWHAWK Acft SN HA1 Acft Dmg: SUBSTANTIAL Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl SUBURU EJ25 Fatal 0 Ser Inj 0 Flt Conducted Under: FAR 091
Opr Name: HUNT DANIEL E Opr dba: Aircraft Fire: NONE

Summary

During the takeoff roll, the nosewheel experienced a shimmy, and the pilot was unable to maintain directional control. The gyrocopter rolled onto its left side, exited the side of the runway, and came to rest in the grass. During the rollover, the main rotor mast sustained substantial damage. A postaccident examination of the gyrocopter revealed a loose bolt in the nose gear steering linkage, which allowed the nosewheel to shimmy. The pilot, who was also the builder, was testing the newly built gyrocopter.

Cause Narrative

THE NATIONAL TRANSPORTATION SAFETY BOARD DETERMINED THAT THE CAUSE OF THIS OCCURRENCE WAS: The pilot/builder's inadequate installation of a nosewheel steering component, which resulted in a shimmy and a loss of directional control during the takeoff roll.

Events

1. Prior to flight - Aircraft maintenance event
 2. Takeoff - Loss of control on ground
 3. Takeoff - Roll over
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Findings - Cause/Factor

1. Personnel issues-Task performance-Maintenance-Installation-Pilot - C
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Narrative

The pilot/builder was planning a short flight above the runway for the purpose of testing the newly built gyrocopter. During the takeoff roll, the nose wheel experienced a shimmy and the pilot was unable to maintain directional control. The gyrocopter rolled onto its left side and exited the side of the runway before coming to rest in the grass. During the rollover, the main rotor mast was substantially damaged. A postaccident examination of the gyrocopter revealed a loose bolt in the nose gear steering linkage which allowed the nose wheel to shimmy.

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Accident Rpt# CEN12LA102	12/08/2011 1645 CST	Regis# N7138K	Festus, MO	Apt: Festus Memorial Airport KFES
Acft Mk/Mdl SHOOK RANS S-12		Acft SN 1094523	Acft Dmg: SUBSTANTIAL	Rpt Status: Unk Prob Caus: Pending
Eng Mk/Mdl ROTAX 582UL		Acft TT 304	Fatal 0 Ser Inj 0	Flt Conducted Under: FAR 091
Opr Name: JOHN H. KNIGHT		Opr dba:		Aircraft Fire: NONE
				AW Cert: SPE

Narrative

On December 8, 2011, at 1645 central standard time, an experimental amateur-built Shook Rans S-12 airplane, N7138K, was substantially damaged when it collided with trees near Festus, Missouri. The flight instructor and student pilot were not injured. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91. Day visual meteorological conditions prevailed for the instructional flight, which was operated without a flight plan. The local flight originated from Festus Memorial Airport (KFES), Festus, Missouri, at 1615.

The student pilot had recently purchased the airplane and was receiving flight instruction toward a sport-pilot license. Neither the student pilot nor his instructor had flown the airplane before the accident flight. The purpose of the flight was to practice takeoffs and landings. The flight instructor reported that the airplane was too high on final approach in order to land on the first third of the runway and that he told the student pilot to perform a go-around while the airplane was about 50 feet above the runway. Shortly after the student pilot had applied maximum engine power the airplane entered a steep left climbing turn. The student pilot over corrected and the airplane subsequently entered a steep right turn. The flight instructor reported that the airplane was in an incipient aerodynamic stall/spin when he assumed control of the airplane. The airplane collided with trees during the subsequent stall/spin recovery, resulting in substantial damage to both of the wings, tailboom, and empennage.

The flight instructor stated that there were no preimpact mechanical malfunctions or failures that would have precluded normal operation of the airplane. Additionally, he noted that the accident could have been prevented had he assumed direct control of the airplane sooner instead of providing verbal corrective actions to the student pilot.

The nearest aviation weather observation station with recorded historical weather information was at St. Louis Downtown Airport (KCPS), about 29 miles north-northeast of the accident site, which was equipped with an automated surface observing system (ASOS).

At 1653, the KCPS ASOS reported the following weather conditions: calm wind; visibility 10 miles; sky clear; temperature 4 degrees Celsius; dew point -4 degrees Celsius; altimeter setting 30.19 inches of mercury.