



Aviation Investigation Final Report

Location:	Southwest Ranch, Florida	Accident Number:	MIA07LA013
Date & Time:	November 11, 2006, 14:19 Local	Registration:	N727PD
Aircraft:	Winter J.T/Johnson Kitfox III	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor stated that while in cruise flight the engine suddenly began to operate "badly", and the whole airplane vibrated intensely. He said that they flew away from the populated residential areas and made a forced landing in the area of a landfill. During the landing rollout the airplane nosed over, incurring damage. According to the FAA inspector who responded to the scene of the accident, upon inspecting the airplane he found one propeller blade missing, with part of the blade root remaining in the hub. Furthermore, he found that one blade mounting bolt was loose and the bolt associated with the missing blade had fractured. The inspector noted no other anomalies with the accident airplane. On May 29, 2007 the NTSB sent the propeller, and its associated mounting hardware, minus the missing blade, to the propeller manufacturer, IVOProp Corporation, Long Beach, California, for further examination, under the supervision of an FAA inspector. The examination revealed that the propeller had been improperly assembled, and was missing the required Motion Detector Tape, which resulted in the blade bolt holes elongating, and one blade separating from the hub in flight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The owner/builder's improper maintenance/installation of the propeller which resulted in a propeller blade coming loose and separating from the hub.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: CRUISE

Findings

1. PROPELLER SYSTEM/ACCESSORIES - SEPARATION
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - OWNER/BUILDER

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. TERRAIN CONDITION - NONE SUITABLE

Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

Factual Information

On November 11, 2006, about 1419 eastern standard time, a Winter J.T./Johnson Kitfox III experimental amateur-built airplane, N727PD, registered to and operated by a private individual, as a Title 14 CFR Part 91 instructional flight, had the flight crew experience aircraft vibrations in-flight, and the crew made a forced landing in Southwest Ranches, Florida. Visual meteorological conditions prevailed, and no flight plan was filed. The commercial-rated flight instructor received no injuries, and the student pilot received minor injuries. The airplane incurred substantial damage. The flight originated in Southwest Ranches, the same day, about 1330.

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Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	37, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1	Last FAA Medical Exam:	January 1, 2006
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 1, 2006
Flight Time:	1050 hours (Total, all aircraft), 20 hours (Total, this make and model), 965 hours (Pilot In Command, all aircraft), 76 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 12 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	66, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 1, 2006
Flight Time:	130 hours (Total, all aircraft), 22 hours (Total, this make and model), 50 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Winter J.T./Johnson	Registration:	N727PD
Model/Series:	Kitfox III	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special); Special light-sport (Special)	Serial Number:	
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	February 1, 2006 Annual	Certified Max Gross Wt.:	1050 lbs
Time Since Last Inspection:	55 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	402 Hrs at time of accident	Engine Manufacturer:	Rotax
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	582LC
Registered Owner:	Jean Lambert	Rated Power:	65 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	FLL,9 ft msl	Distance from Accident Site:	
Observation Time:	13:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 3400 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	27°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Southwest Ranch, FL	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:30 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	26,-80.25

Administrative Information

Investigator In Charge (IIC):	Lovell, John
Additional Participating Persons:	Terry Hurst; FAA FSDO; Fort Lauderdale, FL
Original Publish Date:	September 27, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=64871

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).