



Aviation Investigation Final Report

Location:	New Iberia, Louisiana	Accident Number:	FTW01LA176
Date & Time:	July 10, 2001, 17:45 Local	Registration:	N164AG
Aircraft:	Sikorsky SK-76A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

While on a cross country positioning flight, the pilot noticed that the in-flight ride was a "little rougher" than most S-76 model helicopters that he had flown. He decided to initiate an auto rotation RPM check. After disengaging the autopilot, he lowered the collective and retarded the throttles to idle. Subsequently, the nose "pitched up and snapped to the left to a vertical descent." After the pilot advanced the throttles, the aircraft began to shake "violently." Subsequently, he recovered "full control." After landing, a post flight inspection revealed damage to the main rotor blades and hub. Further inspection of the hub and blades revealed that all 4 blades had cracks about 1 foot outboard of the blade root seals. All 4 spindle assemblies and flap restrainers were also damaged. No impact damage was observed on the hub or blades.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loss of control while maneuvering for undetermined reasons.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING

Findings

1. AUTOROTATION - PERFORMED - PILOT IN COMMAND
2. (C) REASON FOR OCCURRENCE UNDETERMINED
3. ROTOR SYSTEM,MAIN ROTOR BLADE - CRACKED
4. ROTOR SYSTEM,MAIN ROTOR HUB FLAPPING HINGE/STOP(S) - BENT

Factual Information

On July 10, 2001, approximately 1745 central daylight time, a Sikorsky SK-76A helicopter, N164AG, registered to and operated by Air Logistics L.L.C., of New Iberia, Louisiana, was substantially damaged during a loss of control while maneuvering in the vicinity of Sabine Pass, Louisiana. The airline transport rated pilot, who was the sole occupant of the helicopter, was not injured. Visual meteorological conditions prevailed and a company flight plan was filed for the 14 Code of Federal Regulations Part 91 positioning flight. The flight originated from the company's base located at Intracoastal City, Louisiana, at 1700.

The pilot stated that during run up at Intracoastal, the aircraft "seemed to have a bit of a ground track problem." He then proceeded to his destination (Sabine Pass) and noticed that the in-flight ride was a "little rougher" than most S76's that he had flown. About ten miles from Sabine, he decided to initiate an auto rotation RPM check. After disengaging the autopilot, he lowered the collective and retarded the throttles to idle. Subsequently, the nose "pitched up and snapped to the left to a vertical descent." After the pilot advanced the throttles, the aircraft began to shake "violently." Subsequently, he recovered "full control." After landing at Sabine, a post flight inspection revealed damage to the main rotor blades and hub.

Further inspection of the hub and blades revealed that all 4 main rotor blades had cracks about 1 foot outboard of the blade root seals. All four spindle assemblies and flap restrainers were also damaged. No impact damage was observed on either the hub or blades.

Pilot Information

Certificate:	Airline transport	Age:	Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	April 9, 2001
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	16053 hours (Total, all aircraft), 9255 hours (Total, this make and model), 11536 hours (Pilot In Command, all aircraft), 269 hours (Last 90 days, all aircraft), 105 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Sikorsky	Registration:	N164AG
Model/Series:	SK-76A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	760290
Landing Gear Type:	Retractable - Tricycle	Seats:	14
Date/Type of Last Inspection:		Certified Max Gross Wt.:	10500 lbs
Time Since Last Inspection:		Engines:	2 Turbo shaft
Airframe Total Time:		Engine Manufacturer:	Allison
ELT:		Engine Model/Series:	250-C30S
Registered Owner:	Air Logistics LLC	Rated Power:	
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:	Air Logistics	Operator Designator Code:	ALGA

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:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	34°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Intracoastal, LA (LA09)	Type of Flight Plan Filed:	Company VFR
Destination:	Sabine Pass, LA (95XS)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	Air Logistics Sabine Heliport 95XS	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	Unknown
Runway Length/Width:		VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	29.714445,-93.911941

Administrative Information

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	Mike Webber; FAA; Baton Rouge, LA
Original Publish Date:	November 25, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52974

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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](#).