



National Transportation Safety Board Aviation Accident Final Report

Location:	GLENNALLEN, AK	Accident Number:	ANC99LA125
Date & Time:	08/27/1999, 1004 AKD	Registration:	N90WR
Aircraft:	Learjet 35	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General Aviation - Positioning - Air Medical (Medical Emergency)		

Analysis

The first officer was flying the airplane. During final approach, in an attempt to lose altitude and align the airplane with the centerline, the first officer turned the airplane to the right, retarded the throttles, and applied nose down elevator. As the airplane passed over the runway threshold, the airspeed decreased rapidly, and an excessive descent rate was noted. The captain then took control of the airplane, and applied full engine power in order to cushion the touchdown. The captain characterized the touchdown as 'firm', but within acceptable limits. He added that the initial touchdown was made on the left main landing gear, and with the left wing low. Both pilots stated that a postlanding inspection was not accomplished. About 45 minutes later, both pilots, the two flight nurses, and one patient, boarded the airplane for the return trip to Anchorage. The first officer said that just prior to departure, she made a quick walk around inspection of the airplane, and saw no airframe anomalies. After arrival in Anchorage, an inspection by ground personnel discovered a 3 feet by 4 inch scrape located on the lower portion of the left wing-tip fuel tank, and wrinkling of the upper left wing panel, adjacent to the left wing-tip fuel tank attach point.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's delay in applying remedial action. A factor associated with the accident was the second-in-command's failure to maintain proper airspeed during final approach.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) AIRSPEED(VREF) - NOT MAINTAINED - COPILOT/SECOND PILOT
2. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND
3. WING, WINGTIP - BUCKLED

Factual Information

On August 27, 1999, about 1004 Alaska daylight time, a Gates Lear Jet, model 35 airplane, N90WR, operated by F.S. Air Service, Inc., of Anchorage, Alaska, sustained substantial damage during a hard landing at Gulkana Airport, Gulkana, Alaska. Gulkana is located about 8 miles northeast of Glennallen, Alaska, at 62.09.29 north latitude, 145.27.40 west longitude. The airplane was being operated as an instrument flight rules (IFR) medical transport flight under Title 14, CFR Part 91, when the accident occurred. The two certificated airline transport pilots, and the two flight nurses aboard, were not injured. Visual meteorological conditions prevailed at Gulkana, and an IFR flight plan was filed. The flight originated at the Anchorage International Airport, Anchorage, about 0935.

During an interview with the National Transportation Safety Board investigator-in-charge on August 30, the captain of the accident airplane reported that the airplane was being positioned in order to transport a patient to Anchorage. He stated that it had been previously agreed upon that the outbound trip to Gulkana was to be flown by the first officer. The captain said that the first officer made a VOR instrument approach to runway 14. He said that as the flight descended below the cloud cover and the airport environment came into view, it was determined that the airplane was too high, and left of the runway centerline. He said that in an attempt to lose altitude and align the airplane with the centerline, the first officer turned the airplane to the right, retarded the throttles, and applied nose down elevator. The captain said that as the airplane passed over the runway threshold, the airspeed decreased rapidly, and an excessive descent rate was noted. He said that he then took control of the airplane, and applied full engine power in order to cushion the touchdown. The captain characterized the touchdown as "firm", but within acceptable limits. He added that the initial touchdown was made on the left main landing gear, and with the left wing low.

After landing, the airplane was taxied to the parking area, and the medical crew and flight crew disembarked uneventfully. The captain and first officer accompanied the medical crew to the hospital.

Both crew members stated that a postlanding inspection was not accomplished.

Both pilots, the two flight nurses, and one patient, returned to the airport about 45 minutes later, and prepared for the return trip to Anchorage. The first officer said that just prior to departure, she made a quick walk around inspection of the airplane. She stated that she saw no airframe anomalies during her inspection. The flight departed for the return trip to Anchorage about 1125.

After arrival in Anchorage, ground personnel discovered a 3 feet by 4 inch scrape located on the lower portion of the left wing-tip fuel tank, and wrinkling of the upper left wing panel, adjacent to the left wing-tip fuel tank attach point.

The closest weather observation station is located at the Gulkana Airport. On August 27, at 0950, a contract weather observer was reporting in part: Sky conditions and ceiling, 400 feet scattered, 2,400 feet broken, 5,000 feet overcast; visibility, 20 statute miles; wind, 20 degrees at 5 knots.

Both flight crew members noted that there were no preaccident mechanical anomalies with the airplane.

Pilot Information

Certificate:	Airline Transport	Age:	40, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	05/07/1999
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	5022 hours (Total, all aircraft), 860 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft), 160 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Learjet	Registration:	N90WR
Model/Series:	35 35	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	35-022
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	08/25/1999, Continuous Airworthiness	Certified Max Gross Wt.:	18300 lbs
Time Since Last Inspection:	23 Hours	Engines:	2 Turbo Fan
Airframe Total Time:	13361 Hours	Engine Manufacturer:	Garrett
ELT:		Engine Model/Series:	TFE 731
Registered Owner:	F.S. AIR SERVICE, INC.	Rated Power:	3500 lbs
Operator:	F.S. AIR SERVICE, INC.	Air Carrier Operating Certificate:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	STZA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GKN, 1579 ft msl	Observation Time:	0950 ADT
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 400 ft agl	Temperature/Dew Point:	8° C / 7° C
Lowest Ceiling:	Broken / 2400 ft agl	Visibility	20 Miles
Wind Speed/Gusts, Direction:	5 knots, 20°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	ANCHORAGE, AK (ANC)	Type of Flight Plan Filed:	IFR
Destination:	(GKN)	Type of Clearance:	IFR
Departure Time:	0930 ADT	Type of Airspace:	Class E

Airport Information

Airport:	GULKANA (GKN)	Runway Surface Type:	Asphalt
Airport Elevation:	1579 ft	Runway Surface Condition:	Dry
Runway Used:	14	IFR Approach:	VOR
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	CLINTON O JOHNSON	Adopted Date:	11/30/2000
Additional Participating Persons:	MICHAEL W HINDS (FAA); ANCHORAGE, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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