



National Transportation Safety Board Aviation Accident Final Report

Location:	DETROIT, MI	Accident Number:	CHI96LA053
Date & Time:	12/15/1995, 0423 EST	Registration:	N31AT
Aircraft:	Swearingen SA-226AT	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

The pilot reported that shortly after takeoff, the airplane's left engine started to surge. The airplane also began experiencing intermittent electrical surges which caused the instrument panel lights, cabin lights, and radios to go off and on. The pilot diverted to an alternate airport to land. He did not secure the left engine before landing because it was still developing some usable power. He placed the gear select handle in the down position and observed three green gear-down-and-locked lights. Prior to touchdown, both power levers were positioned to flight idle and no gear warning horn sounded. The airplane landed gear up. Postaccident examination revealed no abnormalities with the landing gear or electrical system. The landing gear emergency extension functioned properly. The landing gear indicating system showed a safe gear indication when the gear was extended during examination. Substantial damage to the gear doors was observed, but no damage to the landing gear was observed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to extend the landing gear. A factor in the accident was the pilot's diverted attention.

Findings

Occurrence #1: WHEELS UP LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. ELECTRICAL SYSTEM - UNDETERMINED
2. (C) GEAR EXTENSION - NOT PERFORMED - PILOT IN COMMAND
3. (F) DIVERTED ATTENTION - PILOT IN COMMAND

Factual Information

On December 15, 1995, at 0423 eastern standard time (est), a Swearingen SA-226AT, N31AT, operated by Air Transportation Inc. of El Paso, Texas, was substantially damaged when it landed gear up at Detroit Metropolitan Wayne County Airport, Detroit, Michigan. The pilot reported no injuries. Instrument meteorological conditions prevailed for the flight, which operated on an IFR flight plan. The 14 CFR Part 91 repositioning flight had departed Flint, Michigan, at 0401 est, with an intended destination of Louisville, Kentucky.

The pilot reported that shortly after departing Flint, the airplane's left engine started to surge. The airplane also began experiencing intermittent electrical surges causing the instrument panel lights, cabin lights, and radios to go OFF and ON.

The pilot stated that he decided to divert to Detroit and land because the airport had emergency equipment available. The pilot stated that he did not advise ATC of any problem while diverting because he believed that he could land without incident. The pilot did not attempt to secure the left engine before landing because it was still developing some usable power. The pilot stated he placed the gear select handle in the DOWN position and he observed three green gear down and locked lights. He stated that prior to touchdown, he positioned both power levers to flight idle and no gear warning horn sounded. The airplane landed on the runway gear up.

Postaccident examination and testing of the landing gear and electrical power revealed no abnormalities. The landing gear emergency extension functioned properly. The landing gear indicating system showed a safe gear indication when the gear was extended during examination. Substantial damage to the gear doors was observed, but no damage to the landing gear was observed.

Pilot Information

Certificate:	Airline Transport	Age:	42, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/18/1995
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	9550 hours (Total, all aircraft), 3977 hours (Total, this make and model), 9352 hours (Pilot In Command, all aircraft), 49 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Swearingen	Registration:	N31AT
Model/Series:	SA-226AT SA-226AT	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	AT057
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	09/27/1995, AAIP	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	54 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	6965 Hours	Engine Manufacturer:	Garrett
ELT:	Installed	Engine Model/Series:	331-3U-330G
Registered Owner:	WJN CORPORATION	Rated Power:	840 hp
Operator:	AIR TRANSPORTATION INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	GSGA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	DTW, 640 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0403 EST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	7 Miles
Lowest Ceiling:	Overcast / 900 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	2° C / -1° C
Precipitation and Obscuration:			
Departure Point:	FLINT, MI (FNT)	Type of Flight Plan Filed:	IFR
Destination:	(DTW)	Type of Clearance:	IFR
Departure Time:	0410 EST	Type of Airspace:	Class B

Airport Information

Airport:	DETROIT METRO (DTW)	Runway Surface Type:	Concrete
Airport Elevation:	640 ft	Runway Surface Condition:	Wet
Runway Used:	21R	IFR Approach:	
Runway Length/Width:	12001 ft / 200 ft	VFR Approach/Landing:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	CHRISTINE M CORSONES	Report Date:	05/09/1996
Additional Participating Persons:	DAVID GAUNT; BELLEVILLE, MI		
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.ntsbt.gov/pubdms/ .		

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