



# National Transportation Safety Board Aviation Incident Final Report

---

<b>Location:</b>	FORT LAUDERDALE, FL	<b>Incident Number:</b>	MIA98IA001
<b>Date &amp; Time:</b>	10/01/1997, 1615 EDT	<b>Registration:</b>	N168WS
<b>Aircraft:</b>	Grumman G-73	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>		<b>Injuries:</b>	3 None

**Flight Conducted Under:** Part 91: General Aviation -

---

## Analysis

After lowering the landing gear the pilot confirmed that it was down and locked while on final approach. After touchdown during the landing roll, the nose landing gear collapsed. Post incident trouble shooting of the hydraulic system revealed that the landing gear hydraulic selector valve failed to hold pressure resulting in the collapse of the nose landing gear.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: the partial failure of a component of the hydraulic system resulting in the collapse of the nose landing gear during the landing roll.

## Findings

---

Occurrence #1: NOSE GEAR COLLAPSED  
Phase of Operation: LANDING - ROLL

### Findings

1. (C) HYDRAULIC SYSTEM - FAILURE,PARTIAL

## Factual Information

On October 1, 1997, about 1615 eastern daylight time, a Grumman G-73, N168WS, registered to Pantechon Aviation Ltd., experienced a collapse of the nose landing gear during the landing roll at the Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, Florida. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 CFR Part 91 type-rating flight. The airplane sustained minor damage and the airline-transport rated type rating applicant/pilot, second pilot, and an FAA operations inspector were not injured. The flight originated about 1215 from the same airport.

The pilot-in-command stated that the gear operated normally during the flight which included several gear extensions and retractions. While on final approach, the landing gear indicator indicated that the gear was down which was confirmed once after landing gear extension, and again on short final. After touchdown during the landing roll at an indicated airspeed of about 40 knots, the nose landing gear collapsed.

Post incident trouble shooting of the hydraulic system revealed that the landing gear hydraulic selector valve failed to hold pressure resulting in the collapse of the nose landing gear. Pressure testing of the valve revealed that a poppet valve part number 27580, was bypassing fluid. The O-rings were replaced and the poppet valve continued to bypass fluid.

## Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Multi-engine Sea; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	07/25/1997
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8884 hours (Total, all aircraft), 28 hours (Total, this make and model), 7156 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Grumman	Registration:	N168WS
Model/Series:	G-73 G-73	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	J-5
Landing Gear Type:	Amphibian	Seats:	12
Date/Type of Last Inspection:	09/05/1997, Annual	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	35 Hours	Engines:	2 Reciprocating
Airframe Total Time:	7145 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	R-1340
Registered Owner:	PANTECHNICON AVIATION LTD.	Rated Power:	600 hp
Operator:	PANTECHNICON AVIATION LTD.	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	FLL, 11 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1548 EDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 2000 ft agl	Visibility	6 Miles
Lowest Ceiling:	Overcast / 20000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	30° C / 21° C
Precipitation and Obscuration:			
Departure Point:	(FLL)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1215 EDT	Type of Airspace:	Class C

## Airport Information

Airport:	FT. LAUDERDALE/HOLLYWOOD (FLL)	Runway Surface Type:	Asphalt
Airport Elevation:	11 ft	Runway Surface Condition:	Dry
Runway Used:	9R	IFR Approach:	
Runway Length/Width:	5276 ft / 100 ft	VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Minor
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	TIMOTHY W MONVILLE	Report Date:	05/30/2003
Additional Participating Persons:	BILL WEAVER; FT. LAUDERDALE, FL		
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsbt.gov/pubdms/">http://dms.ntsbt.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).