



National Transportation Safety Board Aviation Accident Final Report

Location:	RENO, NV	Accident Number:	LAX94LA356
Date & Time:	09/08/1994, 0805 PDT	Registration:	N311NW
Aircraft:	HAWKER SIDDELEY HS-125-700A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None

Flight Conducted Under: Part 91: General Aviation - Executive/Corporate

Analysis

THE CAPTAIN SAID THAT THE AIRCRAFT WAS NEAR V₁/VR IN THE TAKEOFF GROUND ROLL WHEN HE HEARD A LOUD BANG FOLLOWED BY A VIBRATION IN THE AIRFRAME. A SECOND LOUD BANG WAS THEN HEARD AS THE CAPTAIN ABORTED THE TAKEOFF. THE OCCUPANTS EVACUATED THE AIRCRAFT AFTER IT CAME TO A STOP ON A TAXIWAY. A FIRE WAS OBSERVED ON THE RIGHT WHEELS AND IN THE WHEEL WELL. AIRPORT FIRE DEPARTMENT UNITS RESPONDED AND EXTINGUISHED THE FIRE. INSPECTION REVEALED THAT BOTH RIGHT MAIN GEAR TIRES HAD BLOWN OUT DURING THE TAKEOFF ROLL. THE GROUND FIRE WAS FOUND TO HAVE SPREAD FROM THE WHEEL WELL INTO THE LEFT WING ROOT AREA. AN FAA INSPECTOR EXAMINED THE AIRCRAFT AND REPORTED THAT THE HYDRAULIC AND FUEL LINES ROUTED THROUGH THE RIGHT WHEEL WELL AREA WERE SEVERED. THE FUSELAGE FUEL TANK WAS FOUND PUNCTURED. THE HYDRAULIC SYSTEM USES MIL 5606 FLUID. THE AREA OF THE RUNWAY WHERE THE INITIAL TIRE FAILURE OCCURRED IS NEAR AN AREA OF CONSTRUCTION ON THE AIRPORT TAXIWAYS. THE DEBRIS FROM THE RUNWAY WAS GATHERED UP BY AIRPORT PERSONNEL AND DISPOSED OF PRIOR TO EXAMINATION BY FAA INSPECTORS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the rupture of fuel and hydraulic lines and the fuselage fuel tank, by tire pieces during the tire blow-out sequence.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. LANDING GEAR,TIRE - BURST
2. ABORTED TAKEOFF - PERFORMED - PILOT IN COMMAND

Occurrence #2: FIRE

Phase of Operation: TAKEOFF - ABORTED

Findings

3. (C) HYDRAULIC SYSTEM,LINE - RUPTURED
4. (C) FUEL SYSTEM,LINE - RUPTURED

Factual Information

On September 8, 1994, at 0805 Pacific daylight time, a Hawker Siddeley HS-125-700A, N311NW, sustained substantial airframe damage during a wheel well and wing root fire following an aborted takeoff at Reno, Nevada. The aircraft was operated by Navellier Management, Inc., of Wilmington, Delaware, and was on a corporate transportation flight under 14 CFR 91 of the Federal Aviation Regulations. The two pilots and two passengers on board were not injured. The flight was originating at the time of the accident as a nonstop cross-country to Scottsdale, Arizona.

The captain stated in an oral interview that the aircraft was near V₁/V_r in the takeoff ground roll when he heard a loud bang followed by a vibration in the airframe. A second loud bang was then heard as the captain aborted the takeoff. The occupants evacuated the aircraft after it came to a stop on a taxiway.

A fire was observed on the right wheels and in the wheel well. Airport fire department units responded and extinguished the fire. Inspection of the aircraft revealed that both right main gear tires had blown out during the takeoff roll. The ground fire was found to have spread from the wheel well to the hell hole and into the left wing root area.

A Federal Aviation Administration (FAA) inspector from the Reno, Nevada, Flight Standards District Office examined the aircraft. He reported that hydraulic and fuel lines routed through the right wheel well area were severed. The fuselage fuel tank was found punctured. The hydraulic system uses MIL 5606 fluid.

The area of the runway where the initial tire failure occurred is near an area of construction on the airport taxiways. The debris from the runway was gathered up by airport personnel and disposed of prior to examination by FAA inspectors.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	43, 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:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last Medical Exam:	03/08/1994
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	8250 hours (Total, all aircraft), 324 hours (Total, this make and model), 7669 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	HAWKER SIDDELEY	Registration:	N311NW
Model/Series:	HS-125-700A HS-125-700	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	NA0311
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	05/20/1994, Continuous Airworthiness	Certified Max Gross Wt.:	25500 lbs
Time Since Last Inspection:	81 Hours	Engines:	2 Turbo Fan
Airframe Total Time:	6319 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TFE 731-3R-1H
Registered Owner:	NAVELLIER MANAGEMENT, INC.	Rated Power:	3700 lbs
Operator:	NAVELLIER MANAGEMENT, INC.	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RNO, 4412 ft msl	Observation Time:	0756 PDT
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	19° C / 5° C
Lowest Ceiling:	None / 0 ft agl	Visibility	30 Miles
Wind Speed/Gusts, Direction:	Light and Variable	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	(RNO)	Type of Flight Plan Filed:	IFR
Destination:	SCOTTSDALE, AZ (SDL)	Type of Clearance:	IFR
Departure Time:	0805 PST	Type of Airspace:	Class D; Class E

Airport Information

Airport:	RENO CANNON INTERNATIONAL (RNO)	Runway Surface Type:	Concrete
Airport Elevation:	4412 ft	Runway Surface Condition:	Dry
Runway Used:	16L	IFR Approach:	None
Runway Length/Width:	9000 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	JEFF RICH,	Adopted Date:	05/18/1995
Additional Participating Persons:	TERRY L VAN NATTA; RENO, NV		
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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