



National Transportation Safety Board Aviation Accident Final Report

Location:	Sturgeon Bay, WI	Accident Number:	CHI07LA135
Date & Time:	05/05/2007, 1930 CDT	Registration:	N53WT
Aircraft:	Cessna 414A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that about eight minutes prior to landing, the right hydraulic light on the annunciator panel illuminated. He lowered the landing gear and continued to his destination. He flew the approach with flaps deployed halfway due to a crosswind, and upon touchdown at a "normal point and airspeed," he deployed full flaps. The pilot reported that the brakes had little or no effect. The airplane overran the runway, went through a chain link perimeter fence, and came to a stop on a perimeter road 449 feet from the edge of the runway. The inspection of the runway revealed black skid marks from both left and right main gear tires continuing to the end of the runway 20, where furrows from both main tires continued through the grass almost to the fence line. The inspection of the brake assemblies by a mechanic revealed that both brake discs and pads were worn and in need of service. The right brake was leaking fluid. The mechanic reported that the left side required a new brake disc and new brake pads, and the right side required new brake pads. Wind conditions were reported as 070 degrees at 10 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Worn brakes which resulted in an overrun during landing. A fence was a factor.

Findings

Occurrence #1: OVERRUN
Phase of Operation: LANDING

Findings

1. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - WORN

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings

2. (F) OBJECT - FENCE

Factual Information

On May 5, 2007, at 1930 central daylight time, a Cessna 414A, N53WT, sustained substantial damage when the airplane overran runway 20 (4,600 feet by 75 feet, asphalt) at Door County Cherryland Airport (SUE), Sturgeon Bay, Wisconsin. The private pilot and both passengers were not injured. The 14 Code of Federal Regulations Part 91 flight departed Ford Airport (IMT), Iron Mountain/Kingsford, Michigan, at 1900 and was en route to SUE. Visual meteorological conditions prevailed at the time of the accident. No flight plan was filed.

The pilot stated that he had flown from the Denver, Colorado, area earlier in the day with a stop at IMT prior to continuing on to SUE. He reported that he did not have to use the brakes significantly at IMT (6,500 feet by 150 feet, asphalt) due to "a long, uphill sloping runway."

Twenty-two minutes after departing IMT for SUE, the pilot reported that the right hydraulic light on the annunciator panel illuminated. He lowered the landing gear and continued on to SUE. The pilot stated that he flew his final approach into SUE with the flaps deployed halfway due to a crosswind. Upon touchdown, he then deployed the flaps to the full position. He said that he touched down on the runway at a "normal point and airspeed" and tried to apply the brakes. He stated his brakes had little or no effect. The airplane overran the runway, went through the airport's chain link perimeter fence, and stopped on the perimeter road. None of the occupants were injured.

A deputy with the Door County Sheriff's Office arrived and took measurements. The airplane came to rest 449 feet from the edge of the runway. The distance from the runway to the chain link perimeter fence was 413 feet.

A Federal Aviation Administration (FAA) inspector examined the aircraft and the accident location. He reported that when he applied the brakes from the cockpit that they were not spongy and were able to hold the aircraft in place. The brake fluid level was within limits. A visual inspection showed the wear on the brake pads was not excessive. During the inspection of the runway, the inspector observed black skid marks from both the left and right main gear tires continuing to the end of the runway, where furrows from both main tires continued through the grass almost to the fence line.

A licensed airframe and powerplant (A&P) mechanic who inspected the aircraft in order to prepare it for a ferry flight noted that both brakes locked up in the hangar upon inspection. The brakes also held the aircraft during a single-engine full-power run-up. He reported that when the aircraft was taxied, the brakes "were not too good." The A&P took both the right and left brake assemblies off of the airplane for further examination. He stated that the right brake showed wear on one side, while the other side showed no wear. He reported that the right brake was leaking fluid. The inspection of the left brake assembly revealed that the left brake disc was "cupped" all the way around the disc on the inboard side. He reported that the left and right brake assemblies were in need of service. He reported that the left side required a new brake disc and new brake pads and the right side required new brake pads.

Weather conditions reported at SUE near the time of the accident were: Wind 070 degrees at 10 knots; visibility 10 statute miles; sky clear; temperature 12 degrees Celsius; dew point -1 degree Celsius; altimeter setting 30.28 inches of mercury.

Pilot Information

Certificate:	Private	Age:	76, 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 3 With Waivers/Limitations	Last FAA Medical Exam:	04/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	04/01/2006
Flight Time:	4938 hours (Total, all aircraft), 2485 hours (Total, this make and model), 4908 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 14 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N53WT
Model/Series:	414A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	414A0533
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	6800 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Teledyne Continental
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-NB
Registered Owner:	C and S Manufacturing Corporation	Rated Power:	335 hp
Operator:	C and S Manufacturing Corporation	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SUE, 725 ft msl	Distance from Accident Site:	
Observation Time:	1855 CDT	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.28 inches Hg	Temperature/Dew Point:	12° C / -1° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Iron Mountain, MI (IMT)	Type of Flight Plan Filed:	None
Destination:	Sturgeon Bay, WI (KSUE)	Type of Clearance:	None
Departure Time:	1900 CDT	Type of Airspace:	

Airport Information

Airport:	DOOR COUNTY CHERRYLAND (SUE)	Runway Surface Type:	Asphalt
Airport Elevation:	725 ft	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	4600 ft / 75 ft	VFR Approach/Landing:	Full Stop; Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	44.843611, -87.421389

Administrative Information

Investigator In Charge (IIC):	James Silliman	Report Date:	02/28/2008
Additional Participating Persons:	Darrell McCullion; Milwaukee FSDO; Milwaukee, WI		
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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