



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	MOORESVILLE, Indiana	Accident Number:	CHI00LA218
Date & Time:	July 23, 2000, 19:00 Local	Registration:	N6223X
Aircraft:	Yakovlev YAK 52	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot said that upon landing, "... the brakes seemed to work at first but began to loose effectiveness half way into the roll-out." The pilot said that he then aborted the landing and "...attempted to troubleshoot the problem with the aircraft checklist but the loss of braking effectiveness is not a covered item." The pilot said that he, "...evaluated going to another airport but decided against an asphalt runway. I decided to land in the taller weeds that are parallel to runway 09 at 2011.... During the landing roll the aircraft was slowed by the action of the weeds but the pneumatic braking action was weak and insufficient." The aircraft impacted the trees at the end of the landing run. A postaccident examination of the aircraft revealed that the brake handle was not properly adjusted in the front cockpit and there was not enough travel in the handle to properly engage the brakes. No other anomalies were found that could be associated with a preexisting condition. An airport located about 8 nautical miles and 353 degrees magnetic from the accident airport has three runways all exceeding 7,600 feet long with the longest being 11,200 feet long.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the brakes not available to the pilot. Factors were the improperly serviced brake system, the improper adjustment of the brakes by maintenance personnel, the trees, and the pilot's decision not to use the available alternate airport.

Findings

Occurrence #1: OVERRUN

Phase of Operation: LANDING - ROLL

Findings

1. (F) LANDING GEAR,NORMAL BRAKE SYSTEM - IMPROPERLY SERVICED
2. (F) MAINTENANCE,ADJUSTMENT - IMPROPER - OTHER MAINTENANCE PERSONNEL
3. (C) BRAKES(NORMAL) - NOT AVAILABLE - PILOT IN COMMAND
4. (F) FLIGHT TO DESTINATION ALTERNATE - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

5. (F) OBJECT - TREE(S)

Factual Information

On July 23, 2000 at 1900 eastern standard time, a Yakovlev Yak-52, N6223X, piloted by a commercial pilot, sustained substantial damage during an overrun and collision with trees during landing on runway 09 (1,800 feet by 75 feet, dry turf), at the Kay Airport, a private airport, near Mooresville, Indiana. The 14 CFR Part 91 personal flight was not on a flight plan. Visual meteorological conditions prevailed at the time of the accident. The pilot reported no injuries to himself or his one passenger. The local flight originated about 1840.

In a written statement, the pilot said that he had given his uncle a ride in the aircraft after which an uneventful landing was made. He said that he then gave his aunt a ride and upon landing, "... the brakes seemed to work at first but began to loose effectiveness half way into the roll-out." The pilot said that he then aborted the landing and "...attempted to troubleshoot the problem with the aircraft checklist but the loss of braking effectiveness is not a covered item." The pilot said that he, "...evaluated going to another airport but decided against an asphalt runway. I decided to land in the taller weeds that are parallel to runway 09 at 2011.... During the landing roll the aircraft was slowed by the action of the weeds but the pneumatic braking action was weak and insufficient." The aircraft impacted the trees at the end of the landing run.

A postaccident examination of the aircraft by a Federal Aviation Administration Inspector revealed that the brake handle was not properly adjusted in the front cockpit. The inspector stated that there was not enough travel in the handle to properly engage the brakes. No other anomalies were found that could be associated with a preexisting condition.

The Indianapolis International Airport (IND), Indianapolis, Indiana, is located about 8 nautical miles and 353 degrees magnetic from the accident airport. IND has three runways. Runway 5L/23R is 11,200 feet long by 150 feet wide, runway 5R/23L is 10,000 feet long by 150 feet wide, and runway 14/32 is 7,605 feet long by 150 feet wide.

Pilot Information

Certificate:	Commercial; Flight engineer; Flight instructor	Age:	37,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 14, 2000
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2485 hours (Total, all aircraft), 12 hours (Total, this make and model), 2111 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Yakovlev	Registration:	N6223X
Model/Series:	YAK 52 YAK 52	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	9111601
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	August 12, 1999 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:	23 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	365 Hrs	Engine Manufacturer:	IVCHENKO
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	M14P
Registered Owner:	KIRK A YEGERLEHNER	Rated Power:	360 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	IND ,797 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	18:55 Local	Direction from Accident Site:	353°
Lowest Cloud Condition:	Scattered / 2300 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	77°C / 55°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(20II)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	18:40 Local	Type of Airspace:	Class G

Airport Information

Airport:	KAY AIR AIRPORT 20II	Runway Surface Type:	Grass/turf
Airport Elevation:	651 ft msl	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	1800 ft / 75 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.61087,-86.370079(est)

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	JIM KING; INDIANAPOLIS , IN
Original Publish Date:	September 26, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=49812

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).