



Aviation Investigation Final Report

Location:	LAKE GENEVA, Wisconsin	Accident Number:	CHI92LA015
Date & Time:	October 20, 1991, 16:00 Local	Registration:	N10JF
Aircraft:	NORTH AMERICAN NAVION D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT CLIMBED TO CRUISE ALTITUDE AND HAD SET POWER BEFORE THE ENGINE VIBRATED BRIEFLY AND QUIT. THE PILOT EXECUTED A FORCED LANDING IN A ROUGH FIELD. ENGINE TEARDOWN REVEALED A BROKEN CRANKSHAFT. THE FRACTURE SURFACE SHOWED FATIGUE EMANATING FROM A SCRATCH IN A FILLET AT THE NUMBER 2 MAIN BEARING JOURNAL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FATIGUE FAILURE OF THE CRANKSHAFT. A FACTOR IN THE ACCIDENT WAS INADEQUATE QUALITY CONTROL BY OTHER MAINTENANCE PERSONNEL.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY, CRANKSHAFT - FATIGUE
2. MAINTENANCE, OVERHAUL, MAJOR
3. (F) INADEQUATE QUALITY CONTROL - OTHER MAINTENANCE PERSONNEL

Occurrence #2: GEAR COLLAPSED
Phase of Operation: DESCENT - EMERGENCY

Findings

4. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Private	Age:	49, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	March 21, 1990
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1500 hours (Total, all aircraft), 500 hours (Total, this make and model), 1500 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	NORTH AMERICAN	Registration:	N10JF
Model/Series:	NAVION D NAVION D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	NAV-4-1391
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	October 5, 1991 Annual	Certified Max Gross Wt.:	3150 lbs
Time Since Last Inspection:	95 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5200 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	I0-520B
Registered Owner:	REMPERT, ROGER L.	Rated Power:	285 Horsepower
Operator:	REMPERT, ROGER L.	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:	JVL ,808 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	15:45 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	25000 ft AGL	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	14 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	DELAVAN , WI (C59)	Type of Flight Plan Filed:	None
Destination:	KENOSHA , WI (ENW)	Type of Clearance:	None
Departure Time:	15:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	AMERICANA C02	Runway Surface Type:	Dirt
Airport Elevation:	835 ft msl	Runway Surface Condition:	Dry;Rough
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	4100 ft / 75 ft	VFR Approach/Landing:	Forced landing;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	3 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	42.579452,-88.419349(est)

Administrative Information

Investigator In Charge (IIC): Vallaster, J

Additional Participating Persons: DUANE M HAHN; MILWAUKEE , WI
LLOYD A GLOVER; MILWAUKEE , WI

Original Publish Date: August 13, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=15339>

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](#).