



Aviation Investigation Final Report

Location:	WEST LAFAYETTE, Indiana	Incident Number:	CHI90IA106
Date & Time:	April 3, 1990, 05:45 Local	Registration:	N112MP
Aircraft:	NIHON YS-11A-600F	Aircraft Damage:	None
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 121: Air carrier - Non-scheduled		

Analysis

THE TRANSPORT CATEGORY AIRCRAFT WAS RETURNING TO THE HOME BASE EMPTY (BALLAST ONLY). WEATHER CONDITIONS EXISTED WHICH WERE CONDUCTIVE TO AIRFRAME ICING. ON FINAL APPROACH, WHEN LANDING FLAPS WERE SELECTED, THE AIRCRAFT PITCHED NOSE DOWN ACCOMPANIED BY BUFFETING OF THE AIRFRAME. THE CAPTAIN TOOK CONTROL (FIRST OFFICER HAD BEEN FLYING) AND ADDED FULL POWER. THE FIRST OFFICER SELECTED 15 DEGREES FLAP. THE AIRCRAFT RECOVERED, BUT CONTINUED TO EXHIBIT BUFFETING. THE AIRCRAFT DIVERTED TO AN AIRPORT WITH A LONGER RUNWAY AND A SUCCESSFUL LANDING WAS ACCOMPLISHED. SUBSEQUENT INVESTIGATION REVEALED SUBSTANTIAL ICE ACCUMULATION OUTSIDE THE BOOTED AREA ON THE HORIZONTAL TAIL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: AN UNDETECTED ACCUMULATION OF ICE ON THE HORIZONTAL STABILIZER. RELATING FACTORS WERE THE MANUFACTURER'S LACK OF INFORMATION AND AIRCRAFT MANUALS RELATIVE TO THE UNDERSTANDING OF, AND APPROPRIATE PROCEDURES TO PREVENT THE LOSS OF CONTROL.

Findings

Occurrence #1: ALTITUDE DEVIATION, UNCONTROLLED
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. WEATHER CONDITION - ICING CONDITIONS
2. ANTI-ICE/DEICE SYSTEM - INFORMATION INSUFFICIENT
3. (F) INFORMATION INSUFFICIENT - MANUFACTURER
4. HORIZONTAL STABILIZER SURFACE - ICE
5. (F) ACFT/EQUIP,INADEQUATE AIRCRAFT MANUALS - MANUFACTURER

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	29, Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	March 28, 1989
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	9677 hours (Total, all aircraft), 3341 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	NIHON	Registration:	N112MP
Model/Series:	YS-11A-600F YS-11A-600	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	2105
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	55110 lbs
Time Since Last Inspection:	0 Hrs	Engines:	2 Turbo prop
Airframe Total Time:		Engine Manufacturer:	Rolls-Royce
ELT:	Installed, not activated	Engine Model/Series:	DART 542-10J
Registered Owner:	MID PACIFIC AIR CORP.	Rated Power:	2750 Horsepower
Operator:		Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	MCPA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	LAF ,606 ft msl	Distance from Accident Site:	
Observation Time:	05:52 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown / 1700 ft AGL	Visibility	10 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	1°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	DETROIT , MI (YIP)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	04:39 Local	Type of Airspace:	

Airport Information

Airport:	PURDUE UNIVERSITY LAF	Runway Surface Type:	Asphalt
Airport Elevation:	606 ft msl	Runway Surface Condition:	Dry
Runway Used:	10	IFR Approach:	ILS
Runway Length/Width:	6600 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.419281,-86.920555(est)

Administrative Information

Investigator In Charge (IIC): Wilson, Stephen

Additional Participating Persons: ; INDIANAPOLIS , IN

Original Publish Date: December 30, 1992

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=14567>

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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](#).