



National Transportation Safety Board Aviation Accident Final Report

Location:	WEST LAFAYETTE, IN	Accident Number:	CHI89MA057
Date & Time:	03/15/1989, 0726 EST	Registration:	N128MP
Aircraft:	NIHON YS-11A-600	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 121: Air Carrier - Non-scheduled		

Analysis

AN IFR FLIGHT WAS TERMINATED WITH A VISUAL APPROACH. CONDITIONS WERE CONDUCIVE TO AIRFRAME ICING. THE AIRCRAFT WAS BEING POSITIONED EMPTY, WITH A CG AT 22.1% MAC. ON SHORT FINAL, AT APPROXIMATELY 400 FT AGL, 35 DEGREES OF LANDING FLAP WAS SELECTED. THE AIRCRAFT WAS OBSERVED TO PITCH DOWNWARD TO AN UNUSUAL ATTITUDE AND TO ENTER A STEEP DESCENT. A PARTIAL RECOVERY WAS OBSERVED BEFORE THE AIRCRAFT IMPACTED A DIRT HILL 500 FT SHORT OF RWY 28. EXAMINATION OF THE AIRFRAME AFTER THE ACCIDENT REVEALED 1/2 TO 3/4 INCH OF RIME ICE ADHERING TO THE LEADING EDGE OF THE HORIZONTAL STABILIZER. NO ICE WAS FOUND ON ANY OTHER PORTION OF THE AIRFRAME. EVIDENCE IN THE COCKPIT INDICATED THAT ENGINE, PITOT, AND WINDSHIELD ANTI-ICE SYSTEMS WERE ON, BUT WING/EMPENNAGE DEICE WAS OFF. NO EVIDENCE OF A POWERPLANT OR SYSTEMS MALFUNCTION WAS FOUND.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A LOSS OF CONTROL DUE TO THE IMPROPER INFLIGHT DECISIONS BY THE CREW AND THE UNDETECTED ACCUMULATION OF ICE ON THE LEADING EDGE OF THE HORIZONTAL STABILIZER, DURING FLIGHT IN A FORWARD CENTER OF GRAVITY CONDITION AND EXACERBATED BY THE EXTENSION OF FULL LANDING FLAPS.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (F) WEATHER CONDITION - ICING CONDITIONS
2. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. (C) HORIZONTAL STABILIZER SURFACE - ICE
4. (F) ANTI-ICE/DEICE SYSTEM - NOT USED - COPILOT/SECOND PILOT
5. (F) LOWERING OF FLAPS - EXCESSIVE

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	36, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/20/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	7294 hours (Total, all aircraft), 2097 hours (Total, this make and model), 6294 hours (Pilot In Command, all aircraft), 61 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	NIHON	Registration:	N128MP
Model/Series:	YS-11A-600 YS-11A-600	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	2139
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	02/25/1989, Continuous Airworthiness	Certified Max Gross Wt.:	55110 lbs
Time Since Last Inspection:	29 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	24088 Hours	Engine Manufacturer:	ROLLS-ROYCE
ELT:	Installed	Engine Model/Series:	DART 542-10J
Registered Owner:	KOA HOLDINGS, INC.	Rated Power:	2680 hp
Operator:	MID PACIFIC AIRLINES	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 Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	LAF, 606 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0728 EST	Direction from Accident Site:	270°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	8 Miles
Lowest Ceiling:	Overcast / 2200 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	16 knots / 23 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	0° C / -4° C
Precipitation and Obscuration:			
Departure Point:	TERRE HAUTE, IN (HUF)	Type of Flight Plan Filed:	IFR
Destination:	WEST LAFAYETTE, IN (LAF)	Type of Clearance:	IFR
Departure Time:	0700 EST	Type of Airspace:	Class D

Airport Information

Airport:	PURDUE UNIVERSITY AIRPORT (LAF)	Runway Surface Type:	Asphalt
Airport Elevation:	606 ft	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	Visual
Runway Length/Width:	6600 ft / 150 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	STEPHEN A WILSON	Report Date:	09/14/1990
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident docket 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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