



National Transportation Safety Board Aviation Incident Final Report

Location:	REMMINGTON, IN	Incident Number:	CHI87IA061
Date & Time:	01/13/1987, 1354 EST	Registration:	N906TC
Aircraft:	NIHON YS-11A-500	Aircraft Damage:	Minor
Defining Event:		Injuries:	3 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

THE FLIGHT CREW FAILED TO ADHERE TO APPROPRIATE PROCEDURES AND DIRECTIVES WHEN THEY FAILED TO SELECT THE HP COCK LEVERS TO THE HSWL (LOCK OUT) POSITION WHILE PERFORMING AN APPROACH TO LANDING STALL DURING A TRAINING/TEST FLIGHT. WHEN STALL RECOVERY WAS INITIATED, BOTH PROPELLERS 'HUNG UP' WHEN THE HIGH (CRUISE PITCH) STOPS OF EACH PROPELLER FAILED TO WITHDRAW. AS THE POWER LEVERS WERE ADVANCED, TURBINE GAS TEMPERATURES (TGT'S) EXCEEDED LIMITATIONS; THE LEFT PROPELLER AUTO-FEATHERED, THE RIGHT PROPELLER WAS LATER FEATHERED BY THE CAPTAIN. RESTART PROCEDURES WERE ATTEMPTED WITHOUT SUCCESS, AND A FORCED LANDING IN A PLOWED CORNFIELD ENSUED. EXAMINATION OF THE ENGINES REVEALED THAT THE TURBINES HAD BEEN 'SUBJECTED TO SEVERE (AND DESTRUCTIVE) THERMAL DEGRADATION DURING OPERATION' AS A RESULT OF THE PROPELLERS BEING CONSTRAINED DURING LOW SPEED OPERATIONS. TESTING OF THE RELAYS REVEALED THAT THE HIGH STOP WITHDRAWAL RELAY FOR THE RIGHT PROPELLER FUNCTIONED INTERMITTENTLY.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING

Findings

1. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
2. (F) INATTENTIVE - PILOT IN COMMAND
3. (C) POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: DESCENT - EMERGENCY

Findings

4. TURBINE ASSEMBLY - OVERTEMPERATURE
5. EMERGENCY PROCEDURE - ATTEMPTED - PILOT IN COMMAND
6. PROPELLER SYSTEM/ACCESSORIES, FEATHERING SYSTEM - ENGAGED
7. PROPELLER FEATHERING - PERFORMED - PILOT IN COMMAND

Occurrence #3: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #4: GEAR NOT EXTENDED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

8. TERRAIN CONDITION - OPEN FIELD
9. (C) WHEELS UP LANDING - INTENTIONAL - PILOT IN COMMAND
10. TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	34, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	10/30/1986
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3913 hours (Total, all aircraft), 1381 hours (Total, this make and model), 3400 hours (Pilot In Command, all aircraft), 56 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	NIHON	Registration:	N906TC
Model/Series:	YS-11A-500 YS-11A-500	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Transport	Serial Number:	2154
Landing Gear Type:	Retractable - Tricycle	Seats:	66
Date/Type of Last Inspection:	01/13/1987, Continuous Airworthiness	Certified Max Gross Wt.:	55115 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	Rolls-Royce
ELT:	Not installed	Engine Model/Series:	MK542-105
Registered Owner:	MID PACIFIC AIRLINES	Rated Power:	2050 hp
Operator:	MID PACIFIC AIRLINES	Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	MPCA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LAF, 606 ft msl	Observation Time:	1444 EST
Distance from Accident Site:	24 Nautical Miles	Direction from Accident Site:	155°
Lowest Cloud Condition:	Scattered / 25000 ft agl	Temperature/Dew Point:	5° C / -1° C
Lowest Ceiling:	None / 0 ft agl	Visibility	7 Miles
Wind Speed/Gusts, Direction:	6 knots, 190°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	INDIANAPOLIS, IN (IND)	Type of Flight Plan Filed:	IFR
Destination:	LAFAYETTE, IN (LAF)	Type of Clearance:	
Departure Time:	1330 EST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Minor
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	EDWARD J MCAVOY	Adopted Date:	07/10/1989
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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