



National Transportation Safety Board Aviation Accident Final Report

Location:	BUENA VISTA, CO	Accident Number:	DEN89FA064
Date & Time:	01/20/1989, 0925 MST	Registration:	N73160
Aircraft:	CONVAIR 580	Aircraft Damage:	Substantial
Defining Event:		Injuries:	5 Minor, 24 None

Flight Conducted Under: Part 121: Air Carrier - Scheduled

Analysis

DRG FLT, CREW SHTDN RGT ENG WHEN WARNING LGT FOR GEARBOX OIL PRES ILLUMINATED & PRES WAS NOTED BLO MIN LMT OF 130 PSI. SHORTLY AFTER SECURING RGT ENG, L ENG LOST PWR. (FUEL TANK SHUTOFF VLV SWS & FUEL X-FEED VLV SW WERE LCTD NR EACH OTR.) ATMPTS TO RESTART L ENG WERE UNSUCCESSFUL. WITH LACK OF AC ELEC PWR, CAPT COULD NOT UNFEATHER RGT ENG FOR RESTART. DRG EMERG LNDG, ACFT WAS DMGD ON UNEVEN TRRN. OPNL CHECK OF RGT ENG (AT GND LVL) REVEALED NO MALFUNCTION THAT WOULD HAVE PREVENTED NML OPN. EXAM OF L ENG REVEALED TURBINE SECTION HAD OVERHEATED & TURBINE BLADES HAD SEVERE HEAT DMG. CAPT SAID THAT WHEN HE TRIED TO RESTART L ENG, FUEL VLVS WERE IN NORMAL PSN & PWR LEVER WAS 1' ABV IDLE. HE RECALLED AN ENG RPM OF 8000, BUT DIDN'T RECALL IF HE HAD USED FEATHER BUTTON TO REDUCE RPM TO 3000 (AS DRCTD BY CHECKLIST). HE VERIFIED FUEL SWS WERE 'ON' & HE TRIED TO X-FEED FUEL (IN EVENT OF BLOCKAGE). X-FEEDING OF FUEL WAS NOT PART OF RESTART PROC. FLT MAN-UAL CAUTIONED ABT IMPORTANCE OF REDUCING PWR TO FLT IDLE, TO DECREASE FUEL FLOW TO ENG & MINIMIZE POSSIBLE OVERHEATING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADVERTENT DEACTIVATION OF FUEL TO THE LEFT ENGINE AS THE PILOT WAS MAKING A PRECAUTIONARY SHUTDOWN OF THE RIGHT ENGINE, AND HIS FAILURE TO FOLLOW THE EMERGENCY CHECKLIST PROCEDURE. RELATED FACTORS WERE: LOW GEARBOX OIL PRESSURE (AT FLIGHT ALTITUDE), AND UNEVEN TERRAIN THAT WAS ENCOUNTERED DURING THE EMERGENCY LANDING.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

1. 1 ENGINE
2. (F) LUBRICATING SYSTEM - PRESSURE TOO LOW
3. PROPELLER FEATHERING - INTENTIONAL

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings

4. ALL ENGINES
5. (C) FUEL SUPPLY - INADVERTENT DEACTIVATION - PILOT IN COMMAND

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

Findings

6. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
7. (C) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND

Occurrence #4: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

8. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	55, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	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 Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last Medical Exam:	12/16/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	18644 hours (Total, all aircraft), 6224 hours (Total, this make and model), 12138 hours (Pilot In Command, all aircraft), 173 hours (Last 90 days, all aircraft), 76 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CONVAIR	Registration:	N73160
Model/Series:	580 580	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	336
Landing Gear Type:	Retractable - Tricycle	Seats:	53
Date/Type of Last Inspection:	12/07/1988, Continuous Airworthiness	Certified Max Gross Wt.:	58156 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:	54108 Hours	Engine Manufacturer:	ALLISON
ELT:	Installed, not activated	Engine Model/Series:	501-D13H
Registered Owner:	SIERRA PACIFIC AIRLINES INC	Rated Power:	3750 hp
Operator:	ASPEN AIRWAYS	Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:	UNITED EXPRESS	Operator Designator Code:	ASPA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LXV, 0 ft msl	Observation Time:	0850 MST
Distance from Accident Site:	2 Nautical Miles	Direction from Accident Site:	150°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	-17° C / -17° C
Lowest Ceiling:	None / 0 ft agl	Visibility	50 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	DENVER, CO (DEN)	Type of Flight Plan Filed:	IFR
Destination:	DURANGO, CO (DRO)	Type of Clearance:	IFR
Departure Time:	0000	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	5 Minor, 21 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 Minor, 24 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	GREORY A FEITH	Adopted Date:	01/22/1991
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets 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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.