



National Transportation Safety Board Aviation Accident Final Report

Location:	MARANA, AZ	Accident Number:	DCA90MA055
Date & Time:	09/20/1990, 0707 MST	Registration:	N320MJ
Aircraft:	BOEING 707-321B	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal, 2 Serious
Flight Conducted Under:	Part 91: General Aviation - Ferry		

Analysis

WITNESSES RPRTD 1ST ATMT TO TKOF WAS ABORTED AFTER ACFT SWERVED LEFT & RGT. ON 2ND TRY, ACFT LIFTED OFF ABT HALFWAY DWN RWY. AFTER LIFT-OFF, IT ROLLED RGT, RGT WING HIT GND & ACFT CRASHED. INV REVEALED RUDDER TRIM WAS 7.9 TO 8.3 UNITS (79% TO 83%) NOSE RGT. SIMULATOR TESTS WITH THAT SETTING RESULTED IN CONSISTENT RGT WING COLLISIONS WITH GND AFTER LIFT-OFF. CREW'S CHECKLIST REFERRED TO MECH CHECKLIST FOR CRITICAL ITEMS TO CHECK BFR TKOF. MECH CHECKLIST & 50 OF 54 FLT INST HAD BEEN REMOVED FM ACFT, LEAVING 2 AIRSPEED INDCRS, ALTIMETER & STBY GYRO HORIZON. IN 60 SIMULATED TKOFS IN THIS CONFIGURATION, THERE WAS EVIDENCE OF INSUFFICIENT ATTITUDINAL REF TO RECOGNIZE ROLLING OF ACFT BFR SUFFICIENT ALT WAS ATTAINED. FAA'S DESIGNATED AIRWORTHINESS REP (DAR) HAD INSPD ACFT 3 DAYS BFR & ISSUED FERRY PERMIT. HE LACKED FAA MECH CERT & EXPERIENCE WITH LARGE ACFT. FAA ORDER 8000.62 & AC 183.33 LACKED SPEC GUIDANCE FOR SELECTION, TRNG & OVERSIGHT OF DAR ACTIVITY. ALSO, LACK OF GUIDANCE CONCERNING MIN EQUIP LIST. PLT NOT CURRENT OR MED QUALIFIED TO FLY ACFT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER PREFLIGHT PLANNING/PREPARATION BY THE PILOT, AND HIS FAILURE TO USE A CHECKLIST. FACTORS RELATED TO THE ACCIDENT WERE: THE FAA'S INADEQUATE SURVEILLANCE OF THE OPERATION, THE FAA'S INSUFFICIENT STANDARDS/REQUIREMENTS, THE PILOT'S OPERATION OF THE AIRCRAFT WITH KNOWN DEFICIENCIES, AND HIS LACK OF RECENT EXPERIENCE IN THE TYPE OF AIRCRAFT.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT IN COMMAND
3. (C) CHECKLIST - NOT USED - PILOT IN COMMAND
4. (F) LACK OF RECENT EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
5. LACK OF RECENT EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND
6. (F) INADEQUATE SURVEILLANCE OF OPERATION - FAA(ORGANIZATION)
7. (F) INSUFFICIENT STANDARDS/REQUIREMENTS - FAA(ORGANIZATION)

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

8. TERRAIN CONDITION - GROUND

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	60, 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:	
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Invalid Medical for flight	Last FAA Medical Exam:	04/13/1990
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	13192 hours (Total, all aircraft), 4000 hours (Total, this make and model), 12000 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N320MJ
Model/Series:	707-321B 707-321B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Special Flight	Serial Number:	20028
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	09/17/1990, Unknown	Certified Max Gross Wt.:	320000 lbs
Time Since Last Inspection:	0 Hours	Engines:	4 Turbo Fan
Airframe Total Time:	34965 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT3D-3
Registered Owner:	OMEGA AIR, INC.	Rated Power:	18000 lbs
Operator:	OMEGA AIR, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DMA, 2705 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	0650 MST	Direction from Accident Site:	180°
Lowest Cloud Condition:	Scattered / 7000 ft agl	Visibility	40 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	22° C / 14° C
Precipitation and Obscuration:			
Departure Point:	MARANA, AZ (MZJ)	Type of Flight Plan Filed:	VFR
Destination:	TUCSON, AZ (DMA)	Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

Airport Information

Airport:	PINAL AIRPARK	Runway Surface Type:	Asphalt
Airport Elevation:	1891 ft	Runway Surface Condition:	Dry
Runway Used:	12	IFR Approach:	None
Runway Length/Width:	6280 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 2 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 2 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALFRED W DICKINSON	Report Date:	01/15/1992
Additional Participating Persons:	DON ELAM THURMAN JONES RICK MCNEELY DAVID FOWLER		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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