Aviation Investigation Final Report

Location:	MARFA, Texas	**Accident Number:**	FTW93LA077
Date & Time:	January 29, 1993, 19:40 Local	**Registration:**	N363N
Aircraft:	BEECH 65-A90	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	8 None
Flight Conducted Under:	Part 91: General aviation - Executive/Corporate		

Analysis

DURING A DARK NIGHT CROSS COUNTRY IN INSTRUMENT METEOROLOGICAL CONDITIONS, THE AIRPLANE WAS CLEARED FOR A VOR APPROACH TO RUNWAY 30. DUE TO UNFAVORABLE WINDS, THE PILOT ELECTED TO CIRCLE TO LAND ON RUNWAY 12. WHILE ON A RIGHT DOWNWIND, VISUAL CONTACT WITH THE RUNWAY WAS LOST AND NOT REESTABLISHED. THE PILOT CONTINUED THE DESCENT ON THE BASE LEG AND IMPACTED THE TERRAIN IN A SLIGHT RIGHT TURN

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S CONTINUED DESCENT BELOW THE PROPER ALTITUDE. FACTORS WERE THE DARK NIGHT, FOG, AND THE CREW'S POOR COORDINATION.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - CIRCLING (IFR)

Findings
1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - FOG
3. (C) DESCENT - CONTINUED - PILOT IN COMMAND

4. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
5. (F) CREW/GROUP COORDINATION - POOR - PILOT IN COMMAND

Factual Information

On January 29, 1993, at approximately 1940 central standard time, a Beech 65 A90 twin engine airplane, N363N, was substantially damaged after impacting the ground while executing a circling approach to runway 12 at the Marfa Municipal Airport in Marfa, Texas. The two airline transport pilots and their 6 passengers were not injured. Instrument meteorological conditions prevailed throughout the area for the corporate flight.

According to the Federal Aviation Administration (FAA) inspector, the airplane was cleared for the VOR RWY 30 approach to the Marfa Airport. Due to the easterly winds, the crew elected to execute a circling approach to land on runway 12. At circling minimums, they turned left to circle on the southwest side of the airport and establish themselves on a right downwind. As the airplane was turning right base to final, the right main gear and the right wing tip impacted the ground. The right engine and the two remaining landing gears separated as the airplane slid over the rough desert ground.

According to the pilot's enclosed report, the copilot reported losing sight of the runway as the airplane was abeam the approach end of the landing runway. The captain looked out of the copilot's window and regained visual contact with the runway and pointed it out to the copilot. He added that as the airplane passed through the base leg heading, he asked his copilot if he still had the runway in sight. The pilot stated that he did not hear a response from his copilot so he looked outside to attempt to locate the runway, but all he saw was blackness. At the time of initial ground impact, the pilot stated that his altimeter read 5,000 feet. Field elevation was 4,847 feet.

After sliding for approximately 470 feet, the airplane came to rest on a heading of 047 degrees. All 8 occupants exited the airplane by means of the main cabin door unassisted. The pilot did not report any mechanical anomalies. However, he did report that he thought he was lower than his instruments indicated during the base leg.

A post accident examination of the airplane instruments and electrical systems was completed between February 25, 1993, and March 11, 1993. Both pitot static systems were tested in accordance to the manufacturer's specifications and found within limits. The pilot's altimeter was likewise tested in accordance with the manufacturer's specifications, and also found to be within limits below 16,000 feet. The electrical systems were tested within limits, with the exception of the number 2 inverter which was found to be inoperative for undetermined reason.

The VOR approach to runway 30 at Marfa, Texas, was flight checked by the FAA following the accident and found to be within prescribed limits.

The wreckage was released to the owner's representative at the accident site.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	**Age:**	30,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	May 27, 1992
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	2016 hours (Total, all aircraft), 675 hours (Total, this make and model), 1558 hours (Pilot In Command, all aircraft), 61 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	**Registration:**	N363N
Model/Series:	65-A90 65-A90	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	LJ-236
Landing Gear Type:	Retractable - Tricycle	**Seats:**	9
Date/Type of Last Inspection:	September 18, 1992 AAIP	**Certified Max Gross Wt.:**	8800 lbs
Time Since Last Inspection:	76 Hrs	**Engines:**	2 Turbo prop
Airframe Total Time:	6226 Hrs	**Engine Manufacturer:**	P&W
ELT:	Installed, not activated	**Engine Model/Series:**	PT6A-20
Registered Owner:	JOHNSON, DENNIS	**Rated Power:**	550 Horsepower
Operator:	JOHNSON, DENNIS	**Operating Certificate(s) Held:**	None
Operator Does Business As:	363 KINGAIR LTD.	**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	MRF ,4847 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	20:37 Local	**Direction from Accident Site:**	120°
Lowest Cloud Condition:		**Visibility**	1.25 miles
Lowest Ceiling:	Overcast / 1000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	-1°C / -3°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	HOUSTON , TX (HOU)	**Type of Flight Plan Filed:**	IFR
Destination:		**Type of Clearance:**	IFR
Departure Time:	17:25 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	MARFA MUNICIPAL MRF	**Runway Surface Type:**	Asphalt
Airport Elevation:	4847 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	12	**IFR Approach:**	Circling;VOR/DME
Runway Length/Width:	5303 ft / 75 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	6 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	8 None	**Latitude, Longitude:**	30.310108,-104.020439(est)

Administrative Information

Investigator In Charge (IIC):	Casanova, Hector
Additional Participating Persons:	A. LEE BOEDEKER; LUBBOCK , TX ALLEN W CARTER; DALLAS , TX OSCAR F THOMAS; DALLAS , TX
Original Publish Date:	October 25, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=18691