



National Transportation Safety Board Aviation Accident Final Report

Location:	PEARLAND, TX	Accident Number:	FTW94FA060A
Date & Time:	01/02/1994, 1630 CST	Registration:	N75DL
Aircraft:	PALMER HAWK BM-4	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

AS AN INSTRUCTOR (CFI) & STUDENT IN A CESSNA 172 WERE MAKING TOUCH-&-GO'S ON RUNWAY 14R, A BM-4 PILOT TRANSMITTED ON UNICOM THAT HE WAS APPROACHING FROM THE WEST FOR A BASE ENTRY. REPORTEDLY, THE CESSNA PILOTS WERE TRANSMITTING THEIR POSITIONS ON UNICOM, ALSO. THE BM-4 SUBSEQUENTLY TURNED BASE TO FINAL BEHIND THE CESSNA & WAS SEEN CONVERGING ON THE CESSNA IN DISTANCE & ALTITUDE. IMPACT OCCURRED ON SHORT FINAL. WITNESSES SAID THE AIRPLANES REMAINED TOGETHER, ROTATED TO THE LEFT & DESCENDED VERTICALLY TO THE GROUND. THE BM-4 COLOR WAS WHITE WITH YELLOW TRIM & THE CESSNA WAS COLORED WHITE WITH BROWN TRIM. YELLOW PAINT TRANSFER WAS OBSERVED ON THE UPPER LEFT WING SURFACE, AFT CABIN SUPPORT POST & AFT WINDSHIELD OF THE CESSNA. LEADING EDGE DAMAGE OF THE RIGHT WING OF THE BM-4 WAS APPROXIMATELY EQUAL TO THE WIDTH OF THE AFT CABIN WINDOW OF THE CESSNA. AN IMPACT SIGNATURE MEASUREMENT AT THE OUTBOARD PORTION OF THE LEFT FLAP OF THE CESSNA WAS APPROXIMATELY EQUAL TO THE BM-4 RIGHT LANDING GEAR STRUT WIDTH.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE VISUAL LOOKOUT BY THE PILOT OF THE HAWK BM-4, WHICH RESULTED IN HIS FAILURE TO SEE-AND-AVOID THE CESSNA 172. THE BM-4 PILOT'S NON-STANDARD PROCEDURE FOR ENTERING THE TRAFFIC PATTERN WAS A RELATED FACTOR.

Findings

Occurrence #1: MIDAIR COLLISION

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (F) VFR PROCEDURES - NOT FOLLOWED - PILOT IN COMMAND
2. (C) VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT:

On January 2, 1994, at 1630 central standard time, a Palmer Hawk BM-4, N75DL, and a Cessna 172N, N739TL, were destroyed during a midair collision near Pearland, Texas. Both airplanes were on final approach to runway 14R at Clover Field, which is an uncontrolled airport. Two occupants of the BM-4 and three occupants of the Cessna received fatal injuries. Visual meteorological conditions with 15 miles visibility prevailed for the local flights.

Interviews with witnesses and associates revealed that the Cessna had departed Ellington Field, Houston, Texas, at 1558. Its pilot-in-command was a flight instructor conducting a biennial flight review with the private pilot receiving dual instruction. They performed several VFR patterns for touch and goes on runway 14R. Pilots in the area recalled the Cessna pilot making the VFR uncontrolled field radio communications over the unicom frequency of 122.8. The BM-4 departed Clover Field at 1630 and flew westbound for a local personal flight. Pilots in the area reported a radio transmission on 122.8 from the BM-4 pilot that he was approaching Clover Field from the west for a base entry.

Witnesses observed the Cessna on short final for runway 14R. Witness reports regarding its altitude varied from 200 feet to 500 feet above the ground. Witnesses observed the BM-4 turn base to final behind the Cessna. The BM-4 was initially observed higher above the ground and moving much faster than the Cessna. Witnesses stated that it appeared the BM-4 was converging on the Cessna in distance and altitude. The airplanes were described as impacting 1000 feet before the approach end of runway 14R at an altitude of not more than 300 feet. Witnesses observed the airplanes remain together, rotate to the left and descend vertically to the ground.

DAMAGE TO AIRCRAFT:

The BM-4 was found resting on the left wing and cockpit area of the Cessna. The BM-4 sustained damage to the right wing and right main gear. The Cessna color was white with brown trim and the BM-4 color was white with yellow trim. Yellow paint transfers were observed on the upper left wing surface, the aft cabin support post and aft windshield of the Cessna. Leading edge damage of the right wing of the BM-4 was approximately equal to the width of the aft windshield of the Cessna. Flap actuator measurements indicated the flaps of the Cessna were extended 30 degrees. An impact signature measurement at the outboard portion of the left flap of the Cessna was approximately equal to the BM-4 right landing gear strut width.

MEDICAL AND PATHOLOGICAL INFORMATION:

The Office of the Medical Examiner of Harris County in Houston, Texas, performed the autopsies on all cockpit occupants.

TEST AND RESEARCH:

Examination of the engines was conducted on January 25, 1994. The engine examinations did not reveal any discrepancies. Flight continuity was established. The integrity of all fuel tanks was compromised.

ADDITIONAL DATA:

The airplanes were released to the owner's representatives.

Pilot Information

Certificate:	Commercial	Age:	39, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	11/18/1992
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1037 hours (Total, all aircraft), 7 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	PALMER	Registration:	N75DL
Model/Series:	HAWK BM-4 HAWK BM-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	767
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	10/04/1993, Annual	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:	17 Hours	Engines:	1 Reciprocating
Airframe Total Time:	554 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	A-65-8
Registered Owner:	JENKINS, PHILIP J.	Rated Power:	65 hp
Operator:	JENKINS, PHILIP J.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HOU, 47 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	1650 CST	Direction from Accident Site:	340°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 25000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	18° C / 13° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(T02)	Type of Flight Plan Filed:	None
Destination:	(T02)	Type of Clearance:	None
Departure Time:	1624 CST	Type of Airspace:	Class G

Airport Information

Airport:	CLOVER FIELD (T02)	Runway Surface Type:	Asphalt
Airport Elevation:	44 ft	Runway Surface Condition:	Dry
Runway Used:	14R	IFR Approach:	None
Runway Length/Width:	4300 ft / 70 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	JOYCE M SMITH,	Report Date:	01/11/1995
Additional Participating Persons:	JOHN T MERRIFIELD; HOUSTON, TX		
Publish Date:	04/12/2016		
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/ .		

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