



National Transportation Safety Board Aviation Accident Final Report

Location:	TIPP CITY, OH	Accident Number:	ATL89MA072
Date & Time:	01/12/1989, 0445 EST	Registration:	CGDOV
Aircraft:	HAWKER SIDDELEY HS.748 SERIES 2A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 129: Foreign		

Analysis

DRG NGT CARGO OPN, CHECK CAPT (RGT SEAT) WAS EVALUATING THE 1ST OFFICER (F/O, LEFT SEAT) FOR PSBL UPGRADE TO CAPT. BFR DEPG, FLT WAS CLRD FOR RGT TURN AFTER TKOF TO 020 DEG. TKOF BGN AT 0441:11. WTR/METHANOL INJECTION WAS USED (TO 1ST PWR RDCN). AT 0441:49, LNDG GEAR WAS RETRACTED; 8 SEC LTR 1ST PWR RDCN WAS MADE, THEN A FREQ CHG WAS APPROVED. CAPT NOTED THEY SHLD CLB TO 1500' MSL (APRX 500' AGL) BFR TURNING. AT ABT 300' AGL, ACFT ENTERED OVC & BGN A STEEP RGT TURN. CVR INDCD CAPT WAS PERFORMING COCKPIT DUTIES AT THIS TIME & GIVING INFO TO F/O ABT THE DEP. FDR SHOWED ACFT RCHD MAX ALT OF 423' AGL & BGN DSCNDG. AT 0442:22, CAPT REMARKED TO F/O, 'DON'T GO DOWN . . . GET UP . . . UP UP UP . . . UP, OH!' AT ABT THAT TIME, ACFT HIT IN AN OPEN FLD, BUT CONTD FLYING FOR APRX 3/4 MI. IT THEN HIT A TREE & CRASHED IN A WOODED AREA. INV REVEALED THAT DRG SVRL TRNG FLTS & 2 CHECK FLTS, THE F/O DEMONSTRATED DIFFICULTY IN PERFORMING INSTRUMENT FLT DUE TODISORIENTATION, NARROW FOCUS OF ATTENTION, OR LACK OF INSTRUMENT SCAN (INST FIXATION), ESPECIALLY DRG HI TASK WORK LOAD.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER IFR PROCEDURE BY THE FIRST OFFICER (COPILOT) DURING TAKEOFF, HIS LACK OF INSTRUMENT SCAN (IMPROPER USE OF FLIGHT/NAVIGATION INSTRUMENTS), HIS FAILURE TO MAINTAIN A POSITIVE RATE OF CLIMB OR TO IDENTIFY THE RESULTANT DESCENT, AND THE CAPTAIN'S INADEQUATE SUPERVISION OF THE FLIGHT. CONTRIBUTING FACTORS WERE: DARK NIGHT, LOW CEILING, DRIZZLE, THE FIRST OFFICER'S LACK OF TOTAL EXPERIENCE IN THE TYPE OF OPERATION, AND POSSIBLE SPATIAL DISORIENTATION OF THE FIRST OFFICER.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
 2. (F) WEATHER CONDITION - LOW CEILING
 3. (F) WEATHER CONDITION - DRIZZLE/MIST
 4. (C) IFR PROCEDURE - IMPROPER - COPILOT/SECOND PILOT
 5. (C) FLIGHT/NAVIGATION INSTRUMENT(S) - IMPROPER USE OF - COPILOT/SECOND PILOT
 6. (C) CLIMB - NOT MAINTAINED - COPILOT/SECOND PILOT
 7. (C) DESCENT - NOT IDENTIFIED - COPILOT/SECOND PILOT
 8. (F) SPATIAL DISORIENTATION - COPILOT/SECOND PILOT
 9. (F) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - COPILOT/SECOND PILOT
 10. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: OTHER

Findings

11. OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Airline Transport; Foreign	Age:	37, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	11/24/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	5847 hours (Total, all aircraft), 3200 hours (Total, this make and model), 139 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HAWKER SIDDELEY	Registration:	CGDOV
Model/Series:	HS.748 SERIES 2A HS.748 SER	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	1582
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	01/08/1989, Continuous Airworthiness	Certified Max Gross Wt.:	46500 lbs
Time Since Last Inspection:	25 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	35817 Hours	Engine Manufacturer:	Rolls-Royce
ELT:	Not installed	Engine Model/Series:	DART-7/MK.534
Registered Owner:	BRADLEY AIR SERVICES LTD	Rated Power:	2040 hp
Operator:	BRADLEY AIR SERVICE, LTD	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	KBJF

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	DAY, 1009 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0450 EST	Direction from Accident Site:	170°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	1 Miles
Lowest Ceiling:	Overcast / 300 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	10° C / 9° C
Precipitation and Obscuration:			
Departure Point:	DAYTON, OH (DAY)	Type of Flight Plan Filed:	IFR
Destination:	MONTREAL, CD (YUL)	Type of Clearance:	IFR
Departure Time:	0442 EST	Type of Airspace:	Class D

Airport Information

Airport:	JAMES M COX/DAYTON INTL (DAY)	Runway Surface Type:	Asphalt
Airport Elevation:	1009 ft	Runway Surface Condition:	Wet
Runway Used:	24R	IFR Approach:	None
Runway Length/Width:	9500 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	PRESTON E HICKS	Report Date:	12/10/1990
Additional Participating Persons:	ELDON G ELAM; WASHINGTON, DC MARK HOLTGRAVE; CINCINNATI, OH EDWARD J PYTLARZ; BELLEVILLE, MI DAVID J MCNAIR; OTTAWA, ONTARIO, CD		
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/ .		

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