



National Transportation Safety Board Aviation Accident Data Summary

Location:	MARATHON, FL	Accident Number:	ATL90GA023
Date & Time:	11/02/1989, 2130 EST	Registration:	N23576
Aircraft:	SIKORSKY SK-70	Injuries:	1 Fatal, 2 Minor, 3 None
Flight Conducted Under:	Part 91: General Aviation - Public Aircraft		

Analysis

THE HELICOPTER WAS ON A NIGHT LAW ENFORCEMENT MISSION OVR THE OCEAN NR MARATHON, FL. AFTER TKOF, THE PIC NOTED THE RADARALTIMETER NEEDLE, WHICH ACTIVATED THE LOW ALT WARNING, WAS NOT FUNCTIONAL, THOUGH THE DIGITAL DISPLAY & COPLT'S RADAR ALTIMETER WERE OPERATING NORMALLY. AFTER ENTERING THE MISSION AREA, THE PIC BGN RANDOM MNVRS WITH THE ALT VARYING BTN 200 & 300 FT ABV THE WATER. THERE WAS AN ESTD 1000 FT OVC SKY COND WITH NO VISIBLE HRZN. BOTH PLTS WERE WEARING NIGHT VISION GOGGLES. THE COPLT OPERATED THE SEARCH LIGHT & WAS TO MONITOR THE INSTS. WHILE MNVRG TO KEEP A BOAT IN VIEW, THE HELICOPTER BGN DSCNDG & CONTACTED THE WATER. IMMEDIATELY, THE CABIN FILLED WITH WATER. ALL OF THE OCCUPANTS EGRESSED SUCCESSFULLY FM THE HELICOPTER, EXCEPT THE COPLT, WHO PRESUMABLY DROWNED. THE PIC & 2 OF THE OTR CREWMEMBERS WERE NOT INJURED; THE REMAINING 2 RCVD MINOR INJURIES. AN AGENCY OPNS HANDBOOK DISCUSSED HAZARDS/INCIDENTS, BUT NO MISSION RISK ASSESSMENT PROGRAM WAS IN PLACE FOR MANAGEMENT TO ADEQUATELY IDENTIFY THE LEVEL OF RISK ASSOCIATED WITH THE OPN.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO MAINTAIN THE PROPER ALTITUDE OVER THE OCEAN WATER. FACTORS RELATED TO THE ACCIDENT WERE: CONTINUED OPERATION OF THE HELICOPTER WITH A KNOWN PARTIAL DEFICIENCY OF THE RADIO ALTIMETER/WARNING SYSTEM, DARKNESS, THE PILOT'S LACK OF VISUAL PERCEPTION, FAILURE OF THE COPILOT TO ADEQUATELY MONITOR THE HELICOPTER'S ALTITUDE ABOVE THE WATER, AND INSUFFICIENT MANAGEMENT STANDARDS TO IDENTIFY INORDINATE FLIGHT RISKS.

Findings

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

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
2. (F) FLIGHT/NAV INSTRUMENTS,ALTIMETER,RADIO - FAILURE,PARTIAL
3. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - CONTINUED
4. (F) INSUFF STANDARDS/REQUIREMENTS,OPERATION/OPERATOR - OTHER GOVT ORGANIZATION
5. TERRAIN CONDITION - WATER
6. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

- 7. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND
- 8. (F) MONITORING - INADEQUATE - COPILOT/SECOND PILOT

Pilot Information

Certificate:	Airline Transport	Age:	46
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	4758 hours (Total, all aircraft), 490 hours (Total, this make and model), 4503 hours (Pilot In Command, all aircraft), 73 hours (Last 90 days, all aircraft), 31 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SIKORSKY	Registration:	N23576
Model/Series:	SK-70 SK-70	Engines:	2 Turbo Shaft
Operator:	U.S. STATES CUSTOMS SERVICE	Engine Manufacturer:	GE
Operating Certificate(s) Held:	None	Engine Model/Series:	T700-GE-700
Flight Conducted Under:	Part 91: General Aviation - Public Aircraft		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	, 0 ft msl	Weather Information Source:	Witness
Lowest Ceiling:	Broken / 1000 ft agl	Wind Speed/Gusts, Direction:	9 knots / , Variable
Temperature:	24° C	Visibility	10 Miles
Precipitation and Obscuration:			
Departure Point:	HOMESTEAD AFB, FL (HST)	Destination:	(HST)

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 2 Minor, 3 None	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): PRESTON E HICKS

Adopted Date: 09/05/1991

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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