Aviation Investigation Final Report

Location:	Eugene Isl 259,	**Accident Number:**	DFW07LA011
Date & Time:	October 22, 2006, 07:30 Local	**Registration:**	N22342
Aircraft:	Sikorsky S-76A++	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The two crewmembers (pilot and copilot) of the twin-engine helicopter were scheduled to fly to an offshore oil platform located about 60 miles from their shore base. The helicopter was inadvertently flown into the water while the attention of both crewmembers was diverted to arming the emergency float system and activating the windshield wipers. The flight crew had made two unsuccessful attempts to pick up a passenger on the previous day, and had been unable to reach the platform due to inclement weather in the area. Instrument Meteorological Conditions (IMC) prevailed as the crew attempted to locate and land on the platform. The copilot, who reported having accumulated a total of 10 hours in the same make and model, reported that while performing the pre-landing checklist, the helicopter impacted the water in a near-level attitude. The 16,848-hours helicopter pilot and the 1,371-hours copilot were able to egress from the helicopter and were able to swim for 2.5 hours to an abandoned platform, from which they were rescued by helicopter. The emergency float equipped helicopter rolled over and sank. The helicopter was located and recovered a few days after the mishap. The flight crew reported that there were no maintenance problems or malfunctions with the helicopter prior to their inadvertent impact with the water.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flight crew's failure to maintain clearance with the water and their diverted attention to secondary tasks while preparing to land. Contributing factor were the low ceilings and the heavy rains restricting their visibility.

Findings

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

Findings
1. (F) WEATHER CONDITION - LOW CEILING
2. (C) CLEARANCE - NOT MAINTAINED - FLIGHTCREW
3. (C) DIVERTED ATTENTION - FLIGHTCREW
4. (F) WEATHER CONDITION - RAIN

Factual Information

On October 22, 2006, approximately 0730 central daylight time, a twin-engine Sikorsky S-76A++ helicopter, N22342, registered to and operated by Petroleum Helicopters, Inc. (PHI), of Lafayette, Louisiana, was destroyed when it impacted the water while landing at offshore platform Eugene Island (EI) Block 259, located in the Gulf of Mexico. The 16,848-hours airline transport rated pilot was not injured and the 1,731-hours commercial rated copilot sustained minor injuries. There were no passengers aboard the helicopter at the time of the mishap. Visual meteorological conditions prevailed, and a company flight plan was filed for the 14 Code of Federal Regulation Part 91 positioning flight. The flight departed PHI's base near Amelia, Louisiana, at 0658, and was destined for EI 259, which was reported to be located approximately 60 nautical miles from the shoreline, to pickup a passenger and return to Morgan City, Louisiana.

A statement from the copilot reported that the day prior to the accident, the same flight crew attempted to reach the platform twice, but discontinued the flights due to low ceilings and poor visibility. The next morning, the day of the accident, the crew obtained a detailed weather briefing and conducted a normal preflight of the helicopter. While enroute to EI 259, the flight crew continued to update the weather conditions from their home base as well as their destination.

At approximately 0710, the flight crew established contact with the destination platform to inform them of their estimated arrival time of 20 minutes. A call was received by the flight crew that EI 259 was experiencing moderate rain, poor visibility, and a low ceiling. The PIC responded that he was aware of the line of rain showers and he expected the weather to move through prior to their arrival. The flight crew was able to observe the weather by monitoring their onboard weather radar.

At approximately 0725 the crew contacted the platform again to announce their arrival within 5 minutes. The platform personnel informed the flight crew that the landing platform was clear.

When 2 nautical miles west of the landing platform, the flight crew were still unable to establish visual contact with the rig due to the rain showers, so the crew elected to turn to the west and circle the shower. While maneuvering, the pilot called for the pre-landing check list and the copilot responded "that the landing gear was coming down." The pilot stated that the helicopter was less than 2 miles from the rig and he asked the copilot if he could see it. Twenty six seconds later the copilot reported that he had the rig in sight and asked the pilot to turn back to the left so he too can see it.. Sixteen seconds later the pilot reports establishing contact. The copilot then reports "gear down and locked, 3 green and checklist completed" and added he would get the floats armed at 75 knots. As the pilot turned left to final approach he recalled observing his altimeter reading 250 feet and his indicated airspeed between 55 and

60 knots.

The 16,848-hour helicopter pilot added that he remembered seeing the rig on final approach; however, due to the intensity of the rain, there was no visible horizon. The pilot estimated that moderate rain was present during the approach. The 1,371-hour copilot stated that he was losing sight of the landing area, and the pilot called for windshield wipers. He asked the copilot again "to arm the floats and turn on the wipers." The pilot added that the copilot appeared to be fumbling with the switches as the pilot looked down to see what was happening. At that time, the helicopter impacted the water in a near level attitude, rolled over, and began filling with water.

After the cockpit filled with water, the copilot pulled the emergency lever to jettison the door and departed the helicopter. On the surface of the water, the copilot inflated his survival vest and activated his personal GPS emergency tracking device (EPIRB). The pilot, who exited through the missing windshield, was holding on to the other side of the helicopter. The emergency-float equipped helicopter was also equipped with a life raft, which was located under the center row of outboard seats, next to the cabin doors; however, the crewmembers were unable to get the life raft out of the helicopter due to the speed in which the helicopter sank out of view. The seas were 5 to 6 foot swells when the helicopter sank . Both crew members remained in the vicinity of their impact with the water for another 30 to 40 minutes. The flight crew then elected to swim toward an abandoned platform, which they believed to be approximately 2 miles from their position.

The crewmembers swam for 2.5 hours to reach the abandoned offshore platform. The platform had been abandoned following damage sustained during hurricane Katrina. The crew found water, food, medical supplies and shelter until a helicopter made visual contact and reported their position. Both crewmembers were rescued by a Bell 407 helicopter and taken to a hospital in Houma, Louisiana. The flight crew was reported to be suffering from severe fatigue as a result of the egress from the wreckage and their 2.5 hour swim. The copilot was treated for a puncture wound to his right thigh and remained in the hospital overnight for observation.

The flight crew reported that there were no maintenance problems or malfunctions with the helicopter prior to their inadvertent impact with the water. The helicopter was located and recovered a few days after the mishap. The wreckage of the helicopter was released to the operator on October 30, 2006.

Pilot Information

Certificate:	Airline transport	**Age:**	56,Male
Airplane Rating(s):	None	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	April 1, 2006
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	October 1, 2006
Flight Time:	16848 hours (Total, all aircraft), 3442 hours (Total, this make and model), 10281 hours (Pilot In Command, all aircraft), 43 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft)		

Co-pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	30,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	Yes
Instructor Rating(s):	Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Without waivers/limitations	**Last FAA Medical Exam:**	March 1, 2006
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	September 1, 2006
Flight Time:	1371 hours (Total, all aircraft), 10 hours (Total, this make and model), 1072 hours (Pilot In Command, all aircraft), 81 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Sikorsky	**Registration:**	N22342
Model/Series:	S-76A++	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	760096
Landing Gear Type:	Retractable - Tricycle; Emergency float	**Seats:**	14
Date/Type of Last Inspection:	Continuous airworthiness	**Certified Max Gross Wt.:**	10800 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo shaft
Airframe Total Time:	19725 Hrs at time of accident	**Engine Manufacturer:**	Turbomeca
ELT:	Installed, not activated	**Engine Model/Series:**	Arriel 1S1
Registered Owner:	Petroleum Helicopters, Inc.	**Rated Power:**	598 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	HEEA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	K7R3	**Distance from Accident Site:**	
Observation Time:	06:31 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered	**Visibility**	2 miles
Lowest Ceiling:	Overcast / 500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	15 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	340°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.95 inches Hg	**Temperature/Dew Point:**	26°C / 25°C
Precipitation and Obscuration:	Moderate - Showers - Squall		
Departure Point:	Amelia, LA (MCY)	**Type of Flight Plan Filed:**	Company VFR
Destination:	Eugene Is. 259, GM	**Type of Clearance:**	VFR
Departure Time:	06:58 Local	**Type of Airspace:**	

Airport Information

Airport:	Offshore Platform	**Runway Surface Type:**	
Airport Elevation:	80 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor, 1 None	**Latitude, Longitude:**	28.468889,-91.452224

Administrative Information

Investigator In Charge (IIC):	McGill, C Frank
Additional Participating Persons:	Wilbur Keith; FAA FSDO; Baton Rouge, LA
Original Publish Date:	May 29, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=64742