



National Transportation Safety Board Aviation Accident Final Report

Location:	Latangai Island, PO	Accident Number:	WPR13LA137
Date & Time:	03/02/2013, 1320 UTC	Registration:	N471M
Aircraft:	HUGHES 369HS	Aircraft Damage:	Substantial
Defining Event:	Inflight upset	Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General Aviation - Aerial Observation		

Analysis

The pilot reported that, as he was flying toward a school of fish, he observed a nearby fishing vessel moving in the same general direction. He flew over the vessel then continued toward a fish aggregating device (FAD), which is a floating object designed and strategically placed to attract fish; it was located about 0.7 mile away from the vessel. As the pilot approached the FAD, he circled twice and then descended the helicopter into a low hover over the FAD. The helicopter was positioned into the wind, and the vessel was approaching the helicopter from behind. With the helicopter still in a low hover, the fish spotter reached out of the helicopter to attach a radio buoy to the FAD. Shortly after, the helicopter was struck from behind by the vessel. The helicopter subsequently plunged into the ocean.

The fish master, who was at the controls of the vessel, reported that he observed the helicopter circle twice before it appeared to fly out of the area. He was slowing the vessel when it was about 500 meters (0.3 mile) from the FAD when he observed the helicopter in front of the vessel. The captain of the vessel reported that he was on the vessel's helicopter deck when he noticed the helicopter circle twice and then descend to a hover. He stated that he was unsure what the helicopter was doing until he saw the fish spotter reach for the FAD. At this time, he felt the fish master reverse the vessel; however, it still impacted the helicopter's tail.

The Federal Aviation Administration Model Civil Aviation Regulations, Version 2.7, Part 11 states, "Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight." The U.S. Department of Homeland Security, United States Coast Guard Navigation Rules state, "every vessel shall at all times maintain a proper look-out by sight and hearing...as to make a full appraisal of the situation and of the risk of collision." Both the pilot and the fish master of the vessel should have been adequately monitoring their environment and their failure to do so resulted in a collision.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
The failure of both the pilot and the fish master of the vessel to adequately monitor their environment, which resulted in a collision.

Findings

Personnel issues	Monitoring environment - Pilot (Cause)
	Monitoring environment - Other/unknown (Cause)

Factual Information

On March 2, 2013, about 1320 Universal coordinated time (UTC), a Hughes 369HS, N471M, impacted the Pacific Ocean after being struck by a commercial fishing vessel in international waters near Latangai Island, Papua New Guinea. The airline transport pilot sustained serious injuries, and the one fish spotter (passenger) sustained fatal injuries. The helicopter's main rotor assembly and tail rotor assembly were substantially damaged. The aircraft was registered to and operated by Jerry's Helicopter Service, Inc. under the provisions of 14 Code of Federal Regulations Part 91. Day, visual meteorological conditions prevailed for the flight and no flight plan had been filed. The flight originated from the helicopter's designated vessel (MV FK 869) at approximately 1220 UTC.

The pilot reported that while flying the fish spotter found a fish formation. The pilot was flying towards it when he observed a fishing vessel motoring nearby, and in the general direction of, where the fish were spotted. The pilot circled over the vessel and identified it as the Pacific Ranger before it proceeded to circle over the fish formation. When the fish spotter found the fish aggregating device (FAD), which are floating objects designed and strategically placed to attract fish, the pilot approached the FAD and hovered over it at a low altitude about 0.7 miles away from the Pacific Ranger. During this time, the helicopter was positioned into the wind, with the Pacific Ranger approaching from behind. The fish spotter reached out of the helicopter and attempted to attach a radio buoy to the FAD when the helicopter suddenly shook violently and plunged into the ocean, coming to rest upside down.

The fish master of the Pacific Ranger was at the controls at the time of the accident. He reported that prior to seeing the helicopter he observed it on radar when it was about 20 miles away. The helicopter approached the Pacific Ranger and circled around it twice. The fish master reported that it appeared that they did not find the FAD and flew out of the area. When the vessel was about 500 meters from the FAD he was slowing down the vessel when he observed the helicopter in front of them.

The captain of the Pacific Ranger reported that he was on the helicopter deck of the Pacific Ranger watching for tuna and FADs when he noticed the helicopter circle twice and descend to a hover about five ship lengths in front of, and facing away from, the Pacific Ranger. He was unsure what the helicopter was doing until he observed the fish spotter climb onto the float of the helicopter and reach for the FAD. At this time, he felt the fish master reverse the Pacific Ranger, however, they still impacted the tail of the helicopter.

A GPS, which contained waypoints the pilot created during the flight, was recovered from the helicopter and taken to the manufacturer for analysis. The GPS data indicated that when the helicopter initially flew in front of the Pacific Ranger, the helicopter was about 1.7 nautical miles (nm) (about 2 miles) away from the FAD and the Pacific Ranger was about 1.9 nm (2.3 miles) away. The helicopter continued toward the FAD and made one large circle, followed by a smaller circle, before descending to a low hover. The GPS did not indicate time nor did it show the speed of the helicopter or Pacific Ranger.

According to The Federal Aviation Administration's Model Civil Aviation Regulations (MCARS), Version 2.7, Part 11 states under Fish Spotting Operating Rules, "Each operator shall conduct operations so as not to endanger persons or property on the surface nor aircraft in flight."

According to the U.S. Department of Homeland Security, United States Coast Guard Navigation Rules state "every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision."

History of Flight

Maneuvering-hover	Collision with terr/obj (non-CFIT) Inflight upset (Defining event)
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Pilot Information

Certificate:	Airline Transport; Flight Instructor; Foreign	Age:	50
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last Medical Exam:	08/17/2012
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	08/08/2012
Flight Time:	7475 hours (Total, all aircraft), 3518 hours (Total, this make and model), 6372 hours (Pilot In Command, all aircraft), 165 hours (Last 90 days, all aircraft), 102 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	HUGHES	Registration:	N471M
Model/Series:	369HS HS	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	1140671S
Landing Gear Type:	Unknown	Seats:	
Date/Type of Last Inspection:	02/27/2013, 100 Hour	Certified Max Gross Wt.:	
Time Since Last Inspection:	11 Hours	Engines:	1 Turbo Shaft
Airframe Total Time:	9921 Hours	Engine Manufacturer:	Allison
ELT:	Not installed	Engine Model/Series:	250-C18
Registered Owner:	JERRYS HELICOPTER SERVICE INC	Rated Power:	317 hp
Operator:	JERRYS HELICOPTER SERVICE INC	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few / 2000 ft agl	Temperature/Dew Point:	28° C
Lowest Ceiling:	None	Visibility	20 Miles
Wind Speed/Gusts, Direction:	15 knots/ 20 knots, 80°	Visibility (RVR):	
Altimeter Setting:	29.84 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Latangai Island, PO	Type of Flight Plan Filed:	Company VFR
Destination:	Latangai Island, PO	Type of Clearance:	None
Departure Time:	1220 UTC	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious		

Administrative Information

Investigator In Charge (IIC):	Samantha A Link	Adopted Date:	12/15/2014
Additional Participating Persons:	Harold E Kernahan; FAA International Field Office; Los Angeles, CA		
Publish Date:	12/15/2014		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86351		

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