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July 11, 2017 CCS-76-APL-17-0004

To: All S-76D™ Aircraft Operators
All Service Centers
All Field Service Representatives

Attention: Aviation Director
Director of Maintenance
Chief Helicopter Pilot

Subject: S-76D™ Uncommanded Engine Shutdown at Idle

Issue: An S-76D™ experienced an uncommanded engine shutdown while accelerating from idle speed.

Discussion: An S-76D™ offshore operator landed on a helideck to avoid severe weather and wait for passing of a rain squall line. While on the helideck, the pilot retarded the throttles to IDLE for approximately 25 minutes. When the pilot advanced the throttles to the FLY position, the No. 2 engine experienced a flame out.

The operator reported that other than the **ENG 2 OUT** indications, there were no associated cautions, warnings or FADEC faults noted. Upon the subsequent restart of the No. 2 engine, the engine started and ran normally. The customer reported that a post flight evaluation of the engine by Pratt and Whitney concluded that the engine was serviceable.

It is suspected that while the engines were at IDLE for 25 minutes; water may have accumulated in the lower plenum. When the pilot advanced the throttles to FLY, the water was introduced into the engine causing the engine to flame out. Operators should be aware that there is reduced airflow inside the air inlet bypass duct during ground operation at IDLE and, therefore, reduced separation of water and particles out of the exhaust.

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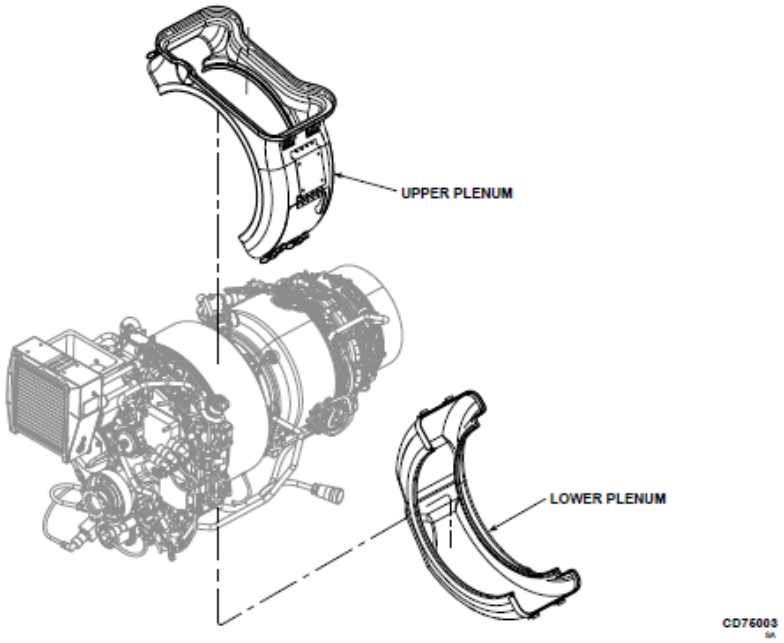

Upper and Lower Plenum

Operational Considerations: Pilots should be aware of the possibility of rainwater accumulating in the lower plenum while operating the engines at IDLE for extended periods in heavy precipitation. However, operators should have confidence that the engine has undergone extensive testing and evaluation to demonstrate this is not an issue in flight.

Best Practices: Sikorsky will continue to investigate this incident to confirm the root cause and pursue required procedural, maintenance and/ or engineering changes.

Until further guidance is provided, we recommend pilots operate with the engines at FLY while performing sustained ground operations in heavy rain.