RECORD OF CONVERSATION

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Date: February 11, 2010
Persons Contacted: Director of Maintenance Hern, Chief Pilot Geard Palmer
NTSB Accident Number: WPR11FA085

Narrative:

In summary, the following statements were made:

Incorporation of the Heli-Lynx STC No. SH06-5 into an AS350BA helicopter does not modify the Honeywell engine. The engine will still fully conform to its type design certificate.

The Safety Board investigator noted that the FAA's Aircraft Registration data base, and the FAA's xxx data base, indicates the helicopter was equipped with a Rolls-Royce 250-C30 engine. The data base was in error. The helicopter had been installed with a TurboMecca Aerial engine

Sunshine Helicopters installed the accident Honeywell engine when it modified the helicopter by incorporating the Heli-Lynx STC, known as the "FX conversion."

When the Honeywell engine is installed in the helicopter, it will respond differently than a helicopter having either the Rolls-Royce or Turbomecca Aerial (sp) engines.

The FX installation in the AS 350 BA helicopter will respond the same as the Honeywell engine when installed without the FX conversion in the AS 350D.

Question: When Sunshine's AS350BA helicopter was modified by incorporation of the FX installation, was there any handling or procedural changes that from a piloting perspective that the FAA should have been attuned or apprised of? Answer: None what so ever in the case of the autorotation.

There is no detent in the fuel control; if you pull it back too far, you will cut the engine off.

In section 3 of the FM, entitled "Emergency Procedures," the following is printed at part 2.4, entitled "Autorotation Landing Training Procedure": "During final approach, shut down the engine, or reduce power, maintaining the Ng above 67%."

According Hel-Lynx, its installation does not change this procedure. The minimum Ng to maintain, which should keep the engine running, is 67%.

The pilot should look at the Ng gage to ascertain the amount of power. There is no change in the FM regarding the autorotation procedure. The FM does not tell you how to do the auto. You use the Ng gage and don't go back to below 50%. In the jet ranger you can roll off the throttle and there is a detent that does not allow you to shut down the engine. In this helicopter there is no detent, so you can retard the fuel control too much, and shut off the engine.

In a training situation you never pull an engine back unless you can be sure there is have somewhere you can go just in case. You read the emergency procedure just before you go up and read the manual and see that 67% is the min to go to. You have to be careful because there is no detent.

In the installation manual for the FX conversion, there is a section of the FX manual that says basically that Heli-Lynx does not change any physical thing regarding the operation of the helicopter. That's why the STC says to refer to the Original Equipment Manufacturer's flight manual. The throttle body is not changed.

The following statement is printed in Section 2, "Limitations," of the FM regarding using the fuel control lever to simulate a loss of engine power:

"PROHIBITED MANOEUVRES
The following are prohibited:
- Engine power reduction in flight using fuel flow control except for autorotational training and providing the altitude is below 8000 ft (2400 m)."