NOTE - THIS IS A TECHNICAL ADVISORY MESSAGE AND HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO ADDRESSEE. ADDRESSEES SHOULD IMMEDIATELY RETRANSMIT THIS MESSAGE TO ALL SUBORDINATE UNITS. ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED, THE RETRANSMITTAL SHALL REFERENCE THIS MESSAGE;

SUBJECT - PROCEDURES FOR SUSPECTED ENGINE FAILURE FOR UH-1 AND AH-1 HELICOPTERS (UH-1-76-23 AND AH-1-76-21)

1. THREE RECENT INCIDENTS AND/OR ACCIDENTS HAVE BEEN ATTRIBUTED TO ERRONEOUS LOW RPM AUDIO ALARM ACTIVATIONS. IN THESE OCCURRENCES, THE ALARM WAS ACTIVATED BY A FAILURE OF THE ROTOR OR ENGINE N2

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TACHOMETER GENERATORS AND NOT AN ACTUAL ENGINE FAILURE, THERE WAS THEREFORE, NO ACTUAL LOSS OF ROTOR OR ENGINE RPM.

2. THE PURPOSE OF THIS MESSAGE IS TO ALERT UH-1 AND AH-1 HELICOPTER OPERATORS THAT THE LOW RPM AUDIO ALARM CAN BE ACTIVATED NOT ONLY BY AN ACTUAL ENGINE FAILURE OR LOSS OF RPM UNDER HEAVY LOADS, BUT BY FAILURE OF TACHOMETER GENERATORS. ADDITIONAL INDICATIONS OF AN ENGINE FAILURE ARE ADDRESSED IN THE EMERGENCY SECTION OF THE OPERATORS MANUALS. WHEN FLIGHT CONDITIONS PERMIT; (E.G., SUFFICIENT ALTITUDE AND/OR AIRSPEED) THESE ADDITIONAL INDICATORS SHOULD BE EVALUATED PRIOR TO ENTERING AUTOPILOT.

3. AS A RESULT OF A USAAVC REQUEST IN COORDINATION WITH USAAAS, THE UH-1 AND AH-1 SERIES HELICOPTER OPERATORS MANUALS WILL BE CHANGED TO REFLECT THE FOLLOWING UNDER EMERGENCY PROCEDURES.


NOTE - THE INDICATIONS OF AN ENGINE FAILURE; EITHER A PARTIAL POWER LOSS OR A COMPLETE POWER LOSS ARE CLN A. A LEFT YAW, THIS IS CAUSED BY THE DROP IN TORQUE APPLIED TO THE MAIN ROTOR.

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B. A DROP IN ENGINE (N2) RPM;
C. A DROP IN ROTOR RPM;
D. A LOW RPM AUDIO ALARM;
E. AN ILLUMINATION OF THE LOW RPM LIGHT;
F. A CHANGE IN ENGINE NOISE;

WARNING

PRIOR TO DECREASING COLLECTIVE, FIRST VERIFY THE ENGINE FAILURE,
THE FOLLOWING WILL INDICATE AN ACTUAL ENGINE FAILURE CLN (1) A
DECREASE IN TORQUE (TORQUEMETER); (2) A DECREASE IN ENGINE (N2)
RPM (ENGINE (N2) TACHOMETER) AND (3) A DECREASE IN ROTOR RPM
(ROTOR TACHOMETER) UNQUOTE;

4. AS AN URGENT MATTER, AVSCO HAT DESIGNED AND IS CURRENTLY
TESTING AN ELECTRICAL ADAPTOR WHICH WILL PROVIDE SYSTEM REDUNDANCY.
THIS MODIFICATION WILL PRECLUDE FALSE ACTIVATION OF THE LOW RPM AUDIO
ALARM UNLESS BOTH THE ENGINE N2 AND ROTOR TACHOMETER GENERATORS
FAIL SIMULTANEOUSLY. SUCCESSFUL COMPLETION OF TESTING (1ST QUARTER, FY-77)
WILL BE FOLLOWED BY FABRICATION AND ISSUE FOR AIRCRAFT MODIFICATION;
5. FOR ADDITIONAL INFORMATION CONTACT MR. POJETA, AUTOVON 698-6516,
BT #4314