ORDER: 8300.10

APPENDIX: 4

BULLETIN TYPE: Flight Standards Information Bulletin (FSIB) for Airworthiness (FSAW)

BULLETIN NUMBER: FSAW 94-48 (Extended)

BULLETIN TITLE: Procedures to be Used to Approve Instructions for Continued Airworthiness Approved by Supplemental Type Certificates (STC)

EFFECTIVE DATE: 01-14-97

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1. SUBJECT. This FSIB is to alert all principal maintenance inspectors (PMI) of the existence of the Maintenance On Reliable Engines (MORE) Program Supplemental Type Certificates (STC) and to provide guidance for incorporating the MORE STC's into operations specifications and the applicable inspection program under Title 14 of the Code of Federal Regulations (14 CFR) section 135.411. The MORE STC's are intended to supplement, not replace, the Pratt and Whitney Canada (PWC) PT6A Instructions for Continued Airworthiness; specifically, the service information letters entitled "Engine Operating-Time-Between Overhauls and Hot Section Inspection Frequency" (see note 14 of the applicable type certificate data sheet for the exact numbers). This FSIB will address the specifics of section 135.411(a)(1) (9 passenger seats or less per aircraft) operator. The PMI can also apply these fundamental principles to an operator using aircraft with ten or more passenger seats.

2. BACKGROUND. There is concern that some operators have used the STC's (referred to as the MORE Program) to increase time between overhaul (TBO) intervals beyond those allowed by their operations specifications without the trending and inspection procedures required by the MORE Program and FAR. To comply with section 135.421, an operator must make appropriate changes to its operations specifications if the inspection program under consideration differs from the manufacturer's recommended program or from another program approved by the Administrator for the particular operator. Although the MORE STC is a program approved by the Administrator, it needs to be incorporated by each particular operator through an amendment to its operations specifications.

3. DISCUSSION. The MORE Company, Inc., has developed a program to maintain some models of the PWC PT6A engine, on a "on-condition" basis. The on-condition program comprises preventive maintenance; repetitive inspections, checks, and tests; spectrometric oil analysis; performance trend monitoring; and propeller balance and vibration analysis. The operator must have procedures in place which adequately administer the program requirements. The procedures should be clearly defined and OpSpecs Paragraph D71 should reference the document or section of the manual containing the procedures. The procedures should include:

(a) A description of how the operator will ensure compliance with the various requirements of the program.

(b) The title of the person(s) responsible for performance of various elements of the program and the person(s) responsible for program management.

(c) Program management procedures should include recognition of adverse trends and revision of inspection frequencies or requirements resulting from program findings.

(d) A description of the system and procedures to ensure that all records required by the program can be specifically tracked to the engine that incorporates the MORE STC. The MORE program has set forth qualifying requirements for persons other than the operator who perform required inspections and/or maintenance. If the operator has made such arrangements, procedures should be established to identify those persons and ensure that the records of the work accomplished are made available to, and maintained by, the operator.

Operators should be advised that they must maintain all records and reports necessary to demonstrate continued compliance with the MORE Program.

Operators using engines that have been modified to incorporate a MORE STC should be aware they must comply with the requirements set forth in the STC, irrespective of 14 CFR parts 91 or 135 under which the aircraft is being operated.

The MORE Program inspections and maintenance requirements are organized in the following three sections:

A. Initialization. When an operator incorporates one of the MORE STC's on a specific engine (each engine by serial number must be considered independently), the operator must comply with the initiation requirements of part 4 of the program document. The STC must be applie to each engine the operator intends to operate under the MORE Program. Additional maintenance required to bring the engine into compliance with the MORE Program must be performed (e.g., periodic inspections that were not previously performed in accordance with the engine's prior maintenance program).

B. Periodic Inspections. Part 3 of the program document defines the preventive maintenance to be performed at the specified intervals while the engine is installed in the aircraft. Most of these maintenance tasks are included in the PWC Instructions for Continued Airworthiness, but the MORE Program specifies shorter intervals and includes additional tasks. The hourly intervals, as shown in the ``Summary Table,'' are based on time since new (TSN), or time since overhaul (TSO). Therefore, after compliance with the initialization in part 4, the engine must be put on a schedule at its current and properly recorded TSN or TSO.

C. Major Repair and Overhaul. Overhaul of individual engine modules, controls, and accessories is addressed in part 5 of the program document. The hourly, or cyclic, intervals defined in this section apply to the engine TSN or TSO. No attempt should be made to link the overhaul of these controls and accessories to the engine time when the program is initiated. In addition, as stated in the MORE Program manual, the manufacturer's life limits take precedence over the overhaul intervals. The specific engine enters the schedule as summarized in Part 5A, "Summary Table," at its current TSN or TSO.

4. ACTION. Principal maintenance inspectors having certificate management responsibility for operators of aircraft using the MORE STC program should ensure that incorporation of the program is accomplished in accordance with this bulletin.

(a) Review the operators submitted revision to their Approved Aircraft Inspection Program, ensuring that the provisions of the MORE STC maintenance program document are properly incorporated.

(b) Review the operators procedures for administering the program requirements. Ensure the procedures include a description of how the operator will comply with the various requirements of the program, the title of the person(s) responsible for performance of various elements of the program and the person(s) responsible for program management. Ensure that the program management includes recognition of adverse trends and revision of inspection frequencies or requirements resulting from program findings. Revision to the inspection frequency must be approved by the Principal Maintenance Inspector provided adequate justification is submitted.

(c) Evaluate the applicant's current operation to determine if the flight stage length, altitude, and time in cruise configuration will allow accurate engine condition trend monitoring in accordance with the applicable PWC PT6A Maintenance Manual.(d) Confirm that the appropriate MORE STC has been incorporated and documented (FAA Form 337) on engines the applicant has incorporated into the program.

(e) Confirm that the applicant has copies of the documents listed in Part Two of the applicable MORE STC maintenance program document.

(f) Confirm that the applicant has the necessary facilities, tools, and equipment to properly perform the required tests and checks required by the applicable MORE STC maintenance program document. Confirm that the individuals performing the tests and checks are properly certificated, trained and qualified. This should include the pilots responsible for recording inflight engine condition trend monitoring data and persons responsible for plotting and evaluating the recorded information, in addition to the mechanics performing the required maintenance tasks.

If the applicant has made arrangements with another person to perform a required inspection and/or maintenance in accordance with the applicable MORE STC maintenance program document, confirm that the person is listed in the supplement attached to the applicable MORE STC maintenance program document as required by Part 5B of that document.

(g) Confirm that the inspection tasks have been accomplished and satisfactory results obtained as described in Part 4 of the applicable MORE STC maintenance program document.

(h) For engines that have accumulated any flight time since the last hot section inspection, confirm that the engine run data obtained following the inspection is available and used as a performance base line for the condition trend monitoring of that engine. In addition, confirm that a change in performance parameters has not occurred which exceeds the limits specified in Part 3, Hot section Inspection/Repair of the applicable MORE STC maintenance program document.

(i) Provided all of the above requirements are satisfactorily ensured by the operator and the PMI, approve the operator's revision to their maintenance program using established procedures. The PMI shall terminate the program if the operator fails to comply with the provisions of the MORE program as required by the operator's operations specifications.

(j) Revision of Operating Specifications.

## EXAMPLE:

D71. Additional Maintenance Requirements (10/05/90)

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ENGINE MAKE AND MODEL	MAINTENANCE DOCUMENT	TIME-IN-SERVICE INTERVAL	
PWC PT6A-28	Piper Service Manual XXX-XXX	3500 HOURS	
	PWC S/B XXXX	H.S.I 1200 HOURS	
PWC PT6A-28	I.A.W.	8000 Hours	
Serial Number(s):	PWC S/B XXXX,		
P1234-0	S.T.C. SEXXXEN, And Chapter XX Of		
P6789-0	(Insert Manual/Doc. Name)		
	I.A.W. PWC S/B XXXX And S.T.C. SEXXXEN	H.S.I O.C.	

5. INQUIRIES. This FSIB has been coordinated with the Flight Standards National Field Office, Aircraft Evaluation Group, and the New England Region's Engine and Propeller Directorate. Questions or comments concerning this bulletin should be directed to the Air Carrier Branch, AFS-330 at (202) 267-3440.

6. EXPIRATION. This FSIB will expire on 05-31-01.

/s/ Frederick J. Leonelli