



ORIGINAL

Memo No. EMD-99-049



DEPT. OF TRANSPORTATION

60322
July 27, 1999

U.S. Department of Transportation Dockets
Docket No. FAA- 1999-540 1 -15
Seventh St. SW.
Room Plaza 401
Washington, DC 20590

FedEx Supplemental Air Operations (SAO) wishes to submit comments regarding FAA Docket No. FAA- 1999-540 1, Notice No. 99-02. SAO is a department within the Air Operations Division of Federal Express Corporation. SAO owns 261 Cessna C-208 Caravan and 32 Fokker F27 aircraft. SAO leases these aircraft to independent certificated air carriers in support of our express delivery operations. These independent carriers possess operational control of the SAO aircraft. SAO has an interest in the disposition of this NPRM in that the maintenance burden is passed through, contractually, to SAO. Therefore, the financial impact of the proposed rule will ultimately fall upon SAO. Our comments to the subject NPRM are as follows:

Current aircraft inspection programs (SIP's, Corrosion Control, etc.) have been developed and refined over many years. These are proven programs for ensuring aircraft integrity, have been developed under the auspices of the FAA and should not be abandoned in pursuit of this rule. These programs already focus attention on the specific needs of aging aircraft. We feel that the proposed programs promise no more than minimal improvement. Since little tangible benefit would be expected by constructing new programs, the significant expense incurred (estimated at between \$1,000,000 and \$2,500,000 per program, depending on aircraft type) hardly seems justified.

2. The NPRM states the F27 SIP is based on AC 91-60, therefore does not qualify as a damage-tolerance-based inspection program. In actuality, the Fokker F27 Structural Integrity Program (SIP), Document No. 27438, Part I has been declared by the FAA as having been prepared in accordance with AC 91-56 which qualifies it as an acceptable damage-tolerance-based inspection program per the NPRM (see Enclosure). The entry linking the F27 SIP to AC 91-60 should be stricken.
3. The inspection intervals set by SIP type programs have been tailored to ensure damage does not develop to critical levels before it can be discovered and corrected. Imposing additional calendar deadlines for the Aging Aircraft Records Review and Inspection without regard to existing inspection schedules will sometimes force early inspection that does not enhance safety and saddles aircraft operators with needless expense.

Rather than setting arbitrary calendar deadlines, when a qualified inspection program is already in place, any aging aircraft records review and inspection should provide the flexibility to accommodate key inspection intervals specified by the existing inspection program in order to mitigate cost impacts.

4. The requirement for DAR/FAA approval of the Aging Aircraft Records Review and Inspection could pose scheduling problems for large fleets. Alternatives that ease the

potential problem need to be available. For example, the FAA should consider requiring that only a statistically significant sample of a large fleet would require DAR/FAA approvals. Additionally, perhaps some personnel at air carriers and Maintenance, Repair and Overhaul (MRO) facilities could be granted limited DAR authority for conducting the inspections.

Respectfully,

A handwritten signature in black ink, appearing to read "Guy M. See". The signature is written in a cursive, slightly slanted style.

Guy M. See
Managing Director
SAO Engineering

cc: Mark S. Blair, Bill West, Mark Hansen, Randy Weakley

Enclosure

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FOKKER SERVICES

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STORK®**Fokker Services B.V.**

Company : Empire Airlines
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 No. of Pages : 3 (including this page)

From : Arie Bouman
 Date : May 7, 1999
 Your Ref. : Yrfax
 Out Ref. : TS99.54947
 ATA-Chapter :

We Copy : J. Veenstra FS/TE
 H. Buimer FS/TA

Subject : Fokker F27 - NPRM notice 99-02

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TELEFAX

Please find enclosed the requested formal writing from the FAA regarding the F27 SIP-1 document.

In our opinion, until now, there is no formal requirement for the evaluation of existing repairs for small transport and commuter type aircraft (including the F27). Regarding the contents of the SIP-1 document, the following background information applies.

Fokker performed full scale and detail tests as well as fatigue analyses (calculations) of the F27 primary structure during the original certification process of the F27. The fatigue inspection requirements resulting from these tests and analyses are incorporated in the SIP-1 document.

In the course of its operation, Fokker Services BV adds service experience, including stress corrosion, to the test evidence as the aircraft is still building up experience. The areas of concern, new designs and developments and service experience are evaluated using the current JAR/FAR 25.571 standards, including damage tolerance assessments. All fatigue and stress corrosion problems (known and anticipated) of safety concern (catastrophic and hazardous failure conditions), resulting from the analyses that require a repetitive inspection or a life limitation, are specified in the "inspection and retirement life task sheets" of the SIP-1 document.

The SIP-1 document is in compliance with the Federal Aviation Administration Advisory Circular 91-56, which provides guidance for developing a supplemental structural integrity program to ensure safe operation of older aircraft throughout their operational life.

The document has therefore been mandated by the RLD and by the FAA.

In principle all damage reports are evaluated by Fokker. Any crack report may result in adjustment of the original fatigue and damage tolerance analysis. Subsequently an amendment of refinement of the F27 maintenance program might be necessary to ensure continuing airworthiness of the F27 fleet. Cracks which affect the flight safety are included in the SIP-1 document.



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The SIP-1 document was subjected to review by the F27 Structures Working Group (SWG), and updated according to their recommendations. One of the tasks of this group of F27 operators, airworthiness authorities and Fokker specialists, was to review in-service experience with this document, i.e. review significant findings, inspectability (e.g. accessibility and inspection procedures) and inspection reliability (e.g. probability of crack detection and inspector fatigue). In addition, this group advised whether corrective actions were required in respect to this inspection program and document, i.e. improved inspection methods and terminating modifications. All tasks and actions resulted from this group have been laid down in Fokker report SE-278.

The objective is to have the SIP-1 document updated regularly, to reflect the latest in-service experience and analyses, by means of a "general" revision. Inspections requiring immediate action from the operators are introduced by an Alert Service Bulletin, i.e. a one-time inspection. The intention is however, to have *subsequent repetitive* inspections, if applicable, included in the SIP-1 document.

We trust this information meets your requirements.

Regards,



Arie Bouman
Fokker Services – Maintenance Recommendations
On behalf of Fokker Services Inc.

