

Operational Suitability Report
AS-350B2 and AS-350B3 Helicopters equipped with Aspen
Avionics EFD1000H PFD and EFD1000H MFD



APPROVED: Edward L. Hinch 6-27-11
Edward L. Hinch, Chairman DATE

CONCUR: Mark E. Fletcher 6-27-11
Mark E. Fletcher, Manager DATE
Fort Worth Aircraft Evaluation Group

CONCUR: John A. Green 10/20/11
MANAGER, DATE
Air Transportation Division AFS-200

CONCUR: George A. Brown, Jr. JUL 22 2011
MANAGER, DATE
General Aviation & Commercial Division
AFS-800

**FORT WORTH AIRCRAFT EVALUATION GROUP
OPERATIONAL SUITABILITY REPORT
AS-350B2 and AS350B3 Helicopters equipped with Aspen
Avionics EFD1000H PFD and EFD1000H MFD**

1. Purpose and applicability

The purpose of this report is to insure complete coverage and documentation of all Flight Standards responsibility regarding the supplemental type certification of the AS-350B2 and AS350B3 Helicopters with Aspen Avionics EFD1000H PFD and EFD1000H MFD. The AS350 aircraft are certificated Part 27 Normal Category Rotorcraft, Day/Night VFR. The Aspen EFD1000H is limited to Day/Night VFR operations only in its present configuration. This system is described as an integral Micro Electromechanical System (MEMS) based Air Data Attitude and Heading Reference System (ADAHRS). The system provides a Primary Flight Display with attitude and HSI and a Multi-Function Display combined with XM Satellite Weather and traffic overlays. This flight evaluation consisted of the maneuvers required for the original issuance of an instrument rating, Helicopter. The addition of the Aspen Avionics EFD1000H PFD and MFD does not effect the maneuvering of the aircraft through all required Practical Test Standard maneuvers. There is minimum coupling of the aircraft to navigation sources and there are no Flight Director cues to follow.

2. Pilot Type Rating Requirements

The AS-350B2 and B3 Rotorcraft are certificated below 12,500 lbs, and exhibit no unusual characteristics or complexity that requires exceptional skill or knowledge to fly. A type rating is not required.

3. N/A

4. N/A

5. N/A

6. FSB Specifications for Training

The certificated operator must meet the training requirements of 14 CFR 135.329 and include in its initial and recurrent training program sufficient instruction on the use and applicability of the Aspen Avionics EFD1000H PFD and MFD.

7. FSB Specifications for Checking

Flight checks are conducted in accordance with the instruction, guidance, and requirements contained in the Commercial Pilot Practical Test Standards, FAA-S-8081-16, Instrument Rating Practical Test Standards FAA-S-8081-4E and/or Airline Transport Pilot and Aircraft Type Rating, FAA-S-8081-20, as supplemented by guidance in FAA Order 8900.1 and 8900.2.

8. FSB Specifications for Currency

Currency shall be maintained in accordance with 14 CFR Part 135.247.

**FORT WORTH AIRCRAFT EVALUATION GROUP
OPERATIONAL SUITABILITY REPORT
AS-350B2 and AS-350B3 Helicopters equipped with Aspen
Avionics EFD1000H PFD and EFD1000H MFD**

PART II

1.0 Background:

On June 10, 2011, Edward L. Hinch, Operations Inspector, and Steven Sorich, Operations Inspector, Fort Worth Aircraft Evaluation Group flew AS-350B3, N856HW for an evaluation of the aircraft handling qualities with the Aspen Avionics EFD1000H PFD and EFD1000H MFD. This system is described as an integral Micro Electromechanical System (MEMS) based Air Data Attitude and Heading Reference System (ADAHRS). The system provides a Primary Flight Display with attitude and HSI and a Multi-Function Display combined with XM Satellite Weather and traffic overlays. This flight evaluation consisted of the maneuvers required for the original issuance of an instrument rating, Helicopter. The addition of the Aspen Avionics EFD1000H PFD and MFD does not effect the maneuvering of the aircraft through all required Practical Test Standard maneuvers. There is minimum coupling of the aircraft to navigation sources and there are no Flight Director cues to follow.

2.0 There are no outstanding Aircraft Evaluation Group issue papers.
All issues were closed prior to the evaluation.

3.0 Type Ratings and Crew Qualification Tests

With the addition of Aspen Avionics, pilots qualifying in an aircraft that have had this STC applied should experience little difficulties in the transition and require minimal training.

Summary and Conclusions: Flight checks are to be conducted in accordance with the instruction, guidance, and requirements

contained in Practical Test Standards and supplemented by guidance in FAA Order 8900.1 and/or 8900.2.