U.S Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed $1,000 for each such violation (Section 901 Federal Aviation Act 1958)

1. Aircraft	Make: GRUMMAN AMERICAN	Model: AA-5
	Serial No.: AA5-0672	Nationality and Registration Mark: N67TP
2. Owner	Name *(As shown on registration certificate)*: PREVOST, THOMAS A. ALEXANDER, LINDA J.	Address *(As shown on registration certificate)*: 15700 CHERRY BLOSSOM LN NORTH POTOMAC, MD 20878-4905

3. For FAA Use Only

The data/alteration identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, section 43.7.

APPROVING INSPECTOR: AEA-FSDO-13

DATE: SEP 20 2005

4. Unit Identification / **5. Type**

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	*(As described in item 1 above)*				X
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
JOEL STOUT 186 AIRPORT ROAD MARIETTA PA17547	☒ U.S. Certified Mechanic ☐ Foreign Certified Mechanic ☐ Certified Repair Station ☐ Manufacturer	166688045

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual
9-27-05	

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☒ APPROVED ☐ REJECTED

BY						
	☐	FAA Flt Standards Inspector	☐	Manufacturer	X	Inspection Authorization
	☐	FAA Designee	☐	Repair Station	☐	Person Approved by Transport Canada Airworthiness Group

Other *(Specify)*:

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual
9-27-05	166688045	

NOTICE: *Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

8. **Description of Work Accomplished**

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

INSPECTED THE PRIOR REMOVAL OF THE FOLLOWING EQUIPMENT AND RELATED COMPONENTS:

FUEL PRESSURE AND AMMETER GAUGES

INSPECTED THE PRIOR INSTALLATION OF THE FOLLOWING EQUIPMENT AND RELATED COMPONENTS:

AEROSPACE LOGIC FP-100 FUEL PRESSURE AND AMMETER INDICATOR

A. **INSTALLATION:** The Aerospace Logic FP-100 unit is a stand-alone electronic fuel pressure / ammeter indicator that is manufactured to exceed the following equipment standards: DO-160D, DO-178B, TSO C43c, and TSO C47. This instrument is TSO'd and STC'd on 699 different aircraft models (ST01700NY). The Grumman American AA5 was not included on the AML by Aerospace Logic due to the relatively small number of aircraft in the AA5 fleet. The complete description of the FP-100 installation is documented on this FAA Form 337 for submission to the local FAA District Office for FAA Field Approval based on similar models included on the AML, specifically the Piper PA-28-150 (AML Item 79) and the Raytheon (Beechcraft) A23-19 (AML Item 10). Both of these have aircraft similar characteristics and limitations: Low-wing aircraft, carbureted Lycoming 150 HP engines, low-pressure engine-driven and electric fuel pumps, and 14 volt electrical systems.

The FP-100 indicator was installed in an unused instrument hole located to the right of the radio stack at Station 69.25, with a weight of 5 ounces (.31 pounds). The FP-100 unit draws a maximum current of 410 mA and was wired to the master electric buss. Fuel pressure and current senders were installed and connected to the instrument. The installation was performed in accordance with the CHT-100 Operations and Installation Manual, pages 3 thru 6.

B. **ELECTRICAL LOAD:** With the addition of the FP-100 to the aircraft, the total continuous electrical load requirements do not exceed 80% of the total rated alternator output

C. **MAINTENANCE REFERENCES:** In addition to the Aerospace Logic FP-100 Operations and Installation Manual, Version 1.3, dated 06/05/2003, the following maintenance references were also used to perform this installation:

FAA Advisory Circular 43.13-1B, Chapter 10, Weight & Balance
FAA Advisory Circular 43.13-2A, Chapter 1, Para. 1 through 12, Structural Data
FAA Advisory Circular 43.13-2A, Chapter 2, Para. 21, 22, 23, 25, 26, 27, Radio Installations

D. **GROUND CHECK:** The FP-100 system post installation checkout was performed following the instructions in the CHT-100 Operations and Installation Manual, Section 5, Setup, Pages 7 thru 12. The system was found to operate normally, safely, and in accordance with the Aerospace Logic FP-100 specifications. This system is independent of other avionics and instruments and is not integrated with any other installed system. It has been determined that the interrelationship between this installation and any other previously approved alteration or configuration will not induce any adverse affects upon the airworthiness of this aircraft.

E. **AIRCRAFT RECORDS:** The Aircraft Equipment List and Weight & Balance Data Sheet have been revised to reflect this installation. A maintenance record entry has been made in the Airframe Logbook referencing this FAA Form 337 by date, to comply with FAR Section 43.9.

2☒ Additional Sheets Are Attached

[GRUMMAN AMERICAN AA-5] [SERIAL NO. AA5-0672] [N67TP]

AEROSPACE LOGIC FP-100 FUEL PRESSURE AND AMMETER INDICATOR
(Continuation of FAA Form 337)

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA)

1) **Introduction:** The Aerospace Logic FP-100 is a digital fuel pressure and ammeter indicator. The main display of the instrument displays a graphical representation of the fuel pressure and amperage relative to the defined limits set by the user. The lower four-digit seven-segment display provides a mathematically computed display of the selected parameter.

2) **Description:** This FP-100 installation provides the capability of displaying fuel pressure and amperage. It consists of a digital indicator unit installed in the panel using hardware provided by with the unit, a fuel pressure sender installed in the engine compartment, and a ammeter sender (shunt) installed behind the instrument panel. The wiring and installation of this system is to be performed in accordance with FP-100 Operations and Installation Manual and standard aircraft maintenance practices.

3) **Controls, Operation Information:** Operation of the FP-100 unit is described in the FP-100 Operations and Installation Manual.

4) **Servicing Information:** The FP-100 instrument must be returned to the manufacturer for service. The fuel pressure and ammeter senders are standard Westach units.

5) **Maintenance Instructions:** Condition and airworthiness inspections of this FP-100 system will coincide with Annual Inspections and/or 100 Hour Inspections as appropriate using normal aircraft avionics inspection procedures. Other than regular periodic inspections and functional checks, maintenance of this FP-100 system is "on condition" with no specific overhaul period. Any maintenance or preventive maintenance required on this system will be accomplished using the references described in paragraphs A & C above. Condition and/or airworthiness inspections required under FAR Part 43, or other FAA approved maintenance programs, must include the following checks:

   a) Perform functional checks as outlined in the FP-100 Operations and Installation Manual to assure the FP-100 system operates properly.

   b) Re-check the component installation using the FP-100 Operations and Installation Manual to confirm integrity and condition of the FP-100 system.

6) **Trouble-shooting Information:** Trouble-shooting can be accomplished by reviewing the Installation and Setup instructions on pages 3 thru 12 (Sections 3, 4 & 5) of the FP-100 Operations and Installation Manual. System function should be determined through functional checks as indicated in that Manual.

7) **Removal and Replacement Information:** All components can be removed with common tools and practices. Installation of components required for this alteration must be in accordance with the instructions contained in the FP-100 Operations and Installation Manual.

8) **Diagrams:** See FP-100 Operations and Installation Manual.

9) **Special Inspection:** None

10) **Application of Protective Treatments:** FP-100 System should not be exposed to any protective coating treatments.

11) **Structural Fasteners:** Standard aircraft hardware is used in the installation of this FP-100.

12) **Special Tools:** None

13) **Information For Commuter Category Aircraft:** Not Applicable

14) **Recommended Overhaul Periods:** None

15) **Airworthiness Limitations Section:** There are no airworthiness limitations as a result of this FP-100 system installation.

16) **Revisions:**

ACCEPTED
SEP 20 2005
Signature AEA-FSDO-13 Date

END