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 [signature] AEA-FSDO-13

DATE SEP 20 2005

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type: Repair	5. Type: 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	[signature]

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	Other (Specify)	
	☐ FAA Designee	☐ Repair Station		Person Approved by Transport Canada Airworthiness Group		

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

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 INSTALLATION OF THE FOLLOWING EQUIPMENT AND RELATED COMPONENTS:

AEROSPACE LOGIC CHT-100-4 CYLINDER HEAD TEMPERATURE INDICATOR

A. **INSTALLATION:** The Aerospace Logic CHT-100-4 unit is a stand-alone electronic CHT system 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 CHT-100-4 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 CHT-100-4 indicator was installed in an unused instrument hole located to the right of the radio stack at Station 69.25, with a weight of 10 ounces (.63 pounds). The CHT-100-4 unit draws a maximum current of 370 mA and was wired to the master avionics buss. Individual thermocouple probes from each cylinder were connected to the instrument. The installation was performed in accordance with the CHT-100 Operations and Installation Manual, pages 11 thru 15.

B. **ELECTRICAL LOAD:** With the addition of the CHT-100-4 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 CHT-100 Operations and Installation Manual, Version 1.9, 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 CHT-100-4 system post installation checkout was performed following the instructions in the CHT-100 Operations and Installation Manual, Section 4, Setup, Pages 6 & 7. The system was found to operate normally, safely, and in accordance with the Aerospace Logic CHT-100-4 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.

ICA - Instructions for Continuing Airworthiness follow this document

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

AEROSPACE LOGIC CHT-100-4 CYLINDER HEAD TEMPERATURE INDICATOR

(Continuation of FAA Form 337)

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA)

1) **Introduction:** The Aerospace Logic CHT-100-4 is a 4-cylinder CHT indicator. The main display of the instrument displays a graphical representation of the temperature of the selected cylinder on the bar display. The lower four-digit seven-segment display provides a mathematically computed display of the specific temperature.

2) **Description:** This CHT-100-4 installation provides the capability of displaying CHT of any cylinder, either through scanning sequentially or by automatically finding the cylinder with the highest CHT. It consists of a digital indicator unit installed in the panel using hardware provided by with the unit and a thermocouple probe on each cylinder. The wiring and installation of this system is to be performed in accordance with CHT-100 Operations and Installation Manual and standard aircraft maintenance practices.

3) **Controls, Operation Information:** Operation of the CHT-100-4 unit is described in the CHT-100 Operations and Installation Manual.

4) **Servicing Information:** The CHT-100-4 instrument must be returned to the manufacturer for service. Thermocouple probes can be individually replaced with Westach series 713 CHT bayonet style probes.

5) **Maintenance Instructions:** Condition and airworthiness inspections of this CHT-100-4 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 CHT-100-4 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 CHT-100 Operations and Installation Manual to assure the CHT-100-4 system operates properly.

   b) Re-check the component installation using the CHT-100 Operations and Installation Manual to confirm integrity and condition of the CHT-100-4 system.

6) **Trouble-shooting Information:** Trouble-shooting can be accomplished by reviewing the Installation and Setup instructions on pages 3 thru 7 (Sections 2 & 4) of the CHT-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 CHT-100 Operations and Installation Manual.

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

9) **Special Inspection:** None

10) **Application of Protective Treatments:** CHT-100-4 System should not be exposed to any protective coating treatments.

11) **Structural Fasteners:** Standard aircraft hardware is used in the installation of this CHT-100-4.

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 CHT-100-4 system installation.

16) **Revisions:**

ACCEPTED

Signature SEP 20 2005 Date

AEA-FSDO-13

END