



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

Form Approved
OMB No. 2120-0020
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 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. §44701). Failure to report can result in a civil penalty for each such violation. (49 U. S. C. §46301(a))

| | | | |
|--------------------|---|---------------------------|---|
| 1. Aircraft | Nationality and Registration Mark USA N653GS | Serial No. 1698 | |
| | Make CIRRUS | Model SR20 | Series |
| 2. Owner | Name (As shown on registration certificate) SHIELDS GREGORY T | | Address (As shown on registration certificate) 12403 BROOKS XING FISHERS, IN 46037-9547 USA |

3. For FAA Use Only

| 4. Type | | 5. Unit Identification | | | |
|--------------------------|--------------------------|------------------------|--------------|--------------------------------|------------|
| Repair | Alteration | Unit | Make | Model | Serial No. |
| <input type="checkbox"/> | <input type="checkbox"/> | AIRFRAME | _____ | (As described in Item 1 above) | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | POWERPLANT | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | PROPELLER | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | APPLIANCE | Type | | |
| | | | Manufacturer | | |

6. Conformity Statement

| | | | | | | | | | |
|---|---|--|---------------------------------------|--|---------------------------|---|----------|--|--|
| A. Agency's Name and Address NexAir Avionics LLC 246 SOUTH MEADOW RD. GATE 6, HANGAR SW-1 PLYMOUTH, MA 02360 USA | B. Kind of Agency <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><input type="checkbox"/> U. S. Certificated Mechanic</td> <td style="width: 70%;"><input type="checkbox"/> Manufacturer</td> </tr> <tr> <td><input type="checkbox"/> Foreign Certificated Mechanic</td> <td>C. Certificate No.</td> </tr> <tr> <td><input checked="" type="checkbox"/> Certificated Repair Station</td> <td>N4OR087B</td> </tr> <tr> <td><input type="checkbox"/> Certificated Maintenance Organization</td> <td></td> </tr> </table> | <input type="checkbox"/> U. S. Certificated Mechanic | <input type="checkbox"/> Manufacturer | <input type="checkbox"/> Foreign Certificated Mechanic | C. Certificate No. | <input checked="" type="checkbox"/> Certificated Repair Station | N4OR087B | <input type="checkbox"/> Certificated Maintenance Organization | |
| <input type="checkbox"/> U. S. Certificated Mechanic | <input type="checkbox"/> Manufacturer | | | | | | | | |
| <input type="checkbox"/> Foreign Certificated Mechanic | C. Certificate No. | | | | | | | | |
| <input checked="" type="checkbox"/> Certificated Repair Station | N4OR087B | | | | | | | | |
| <input type="checkbox"/> Certificated Maintenance Organization | | | | | | | | | |

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 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.

| | | |
|--|---|--|
| Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/> | Signature/Date of Authorized Individual | JOSEPH J. DEBELLA 10-July-2019 |
|--|---|--|

7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is Approved Rejected

| | | | | |
|----|-----------------------------|--|--------------------------|--|
| | FAA Fit Standards Inspector | Manufacturer | Maintenance Organization | Persons Approved by Canadian Department of Transport |
| BY | FAA Designee | <input checked="" type="checkbox"/> Repair Station | Inspection Authorization | Other (Specify) |

| | | |
|--|---|--|
| Certificate or Designation No. N4OR087B | Signature/Date of Authorized Individual | MICHAEL REARICK 10-July-2019 |
|--|---|--|

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.)

USA N653GS

Jul-10-2019

Nationality and Registration Mark

Date

GENERAL:

ALL WORK PERFORMED CONFORMS TO THE PARAMETERS SET FORTH IN THE FARs AND THE RECOMMENDATIONS AND GUIDELINES SET FORTH IN AC43.13-1B AND AC43.13-2B.

FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 10, WEIGHT AND BALANCE

FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 11, AIRCRAFT ELECTRICAL SYSTEMS

FAA ADVISORY CIRCULAR 43.13-1B, CHAPTER 12, AIRCRAFT AVIONICS SYSTEMS

FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 1, PARA. 100 THROUGH 114, STRUCTURAL DATA

FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 2, PARA. 200 THROUGH 210, RADIO INSTALLATIONS

FAA ADVISORY CIRCULAR 43.13-2B, CHAPTER 3, PARA. 300 THROUGH 312, ANTENNA INSTALLATIONS

REMOVED THE FOLLOWING:

GNS 430WNAV/COM/GPS #1

GNS 430W NAV/COM/GPS #2

STEC 55X AUTOPILOT

GTX 327 TRANSPONDER

INSTALLED THE FOLLOWING:

1. AVIDYNE IFD550 NAV/COM/GPS PN:700-00182-020 IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL, 600-00299-000, REV 17 DATED 05/09/2019. FOR REGULATORY COMPLIANCE PLEASE REFERENCE AVIDYNE STC NO. SA00343BO.

2. AVIDYNE IFD440 NAV/COM.GPS PN: 700-00179-000 IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL, 600-00299-000, REV 17 DATED 05/09/2019. FOR REGULATORY COMPLIANCE PLEASE REFERENCE AVIDYNE STC NO. SA00343BO.

3. AVIDYNE DFC 90 AUTOPILOT PN: 700-00170-000 IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION MANUAL, 600-00251-000, REV 09 DATED 09/02/2014. FOR REGULATORY COMPLIANCE PLEASE REFERENCE AVIDYNE STC NO. SA00296BO.

3. AVIDYNE AXP322 MODE S REMOTE TRANSPONDER PN:01481-00 PER AVIDYNE INSTALLATION MANUAL, P/N: 600-00312-000, REV 03 DATED 01/26/2017 AND ALL WORK DONE IN COMPLIANCE WITH STC NO. SA00352BO. FOR REGULATORY COMPLIANCE PLEASE REFERENCE THE FOLLOWING TSO APPROVAL:

- TSO-C112C (AIR TRAFFIC CONTROL RADAR BEACON SYSTEM/MODE SELECT (ATCBS/MODE S) AIRBORNE EQUIPMENT)

- TSO-C166B (EXTENDED SQUITTER AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST (ADS-B) AND TRAFFIC INFORMATION SERVICE - BROADCAST (TIS-B) EQUIPMENT OPERATING ON THE RADIO FREQUENCY OF 1090 MEGAHERTZ (MHZ))

4. FREEFLIGHT ADS-B DATA RECEIVER PN:FDL-987-XVR IAW FREEFLIGHT INSTALLATION MANUAL DOCUMENT #87343 REV. J DATED 12/06/2018. ALL WORK DONE IN COMPLIANCE WITH FREEFLIGHT STC SA0242AK.

FREEFLIGHT INTERFACED WITH AVIDYNE IFD 550 IAW AVIDYNE MANUAL PN 600-00299-000.

PERFORMED MAINTENANCE OPERATION CHECK (MOC) AND FLIGHT TEST.

PERFORMED EMI TESTING IN ACCORDANCE WITH AC 43.13-1B PARA. 11-107, INTERFERENCE TESTS

UPDATED AIRCRAFT WEIGHT AND BALANCE AND AIRCRAFT EQUIPMENT LISTING.

POWER ASSESSMENT DONE IN ACCORDANCE WITH FAR REQUIREMENTS. POWER LOAD DOES NOT EXCEED 80% OF THE AIRCRAFT SYSTEM CAPACITY, DETERMINED BY CALCULATION.

THIS INSTALLATION HAS BEEN SHOWN TO MEET FAA REQUIREMENT FOR ADS-B OUTPUT AS DESCRIBED IN FAA ADVISORY CIRCULAR AC20-165B AND FAR 91.227.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (LATEST REV.):

IFD 550/IFD 440: AVIFD-315

AXP 322: AVAXP-007

DFC 90: AVDFC-030

ADDITIONAL SHEETS ARE ATTACHED

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| | |
|-----------------------------------|-------------|
| USA N653GS | Jul-10-2019 |
| Nationality and Registration Mark | Date |

NOTES:

LOGBOOK ENTRIES MADE PER FAR REQUIREMENTS

***** NOTHING FOLLOWS *****

ADDITIONAL SHEETS ARE ATTACHED