



U.S. Department of
Transportation
Federal Aviation
Administration

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 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 | Nationality and Registration Mark N176PT | Serial No. 1682 | | | |
| | Make CIRRUS DESIGN CORP | Model SR20 | Series | | |
| 2. Owner | Name (As shown on registration certificate) MOFFITT THOMAS J | | Address (As shown on registration certificate) | | |
| | | | Address 519 SELFRIDGE RD | | |
| | | | City GANSEVOORT | State NY | |
| | | | Zip 12831-1642 | Country USA | |

3. For FAA Use Only

| 4. Type | | 5. Unit Identification | | | |
|--------------------------|-------------------------------------|------------------------|--------------|--------------------------------|---------------|
| Repair | Alteration | Unit | Make | Model | Serial Number |
| <input type="checkbox"/> | <input checked="" 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 | | B. Kind of Agency | |
| Name NEXAIR AVIONICS LLC | | <input type="checkbox"/> U.S. Certificated Mechanic | <input type="checkbox"/> Manufacturer |
| Address 265 FRUIT STREET | | <input type="checkbox"/> Foreign Certificated Mechanic | C. Certificate No. |
| City MANSFIELD State MA | | <input checked="" type="checkbox"/> Certificated Repair Station | N4OR087B |
| Zip 02048 Country USA | | <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 4.10.2010 |
|------------------------------------------------------------------------|-------------------------------------------------------------|

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

| | | | | |
|----|-----------------------------|--------------|--------------------------|-----------------------------------------------------|
| BY | FAA Fit Standards Inspector | Manufacturer | Maintenance Organization | Person Approved by Canadian Department of Transport |
| | FAA Designee | X | Repair Station | Inspection Authorization |
| | | | | Other (Specify) |

| | |
|---------------------------------------------------|-------------------------------------------------------------|
| Certificate or Designation No. N4OR087B | Signature/Date of Authorized Individual 4.10.2010 |
|---------------------------------------------------|-------------------------------------------------------------|

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 N176PT

Nationality and Registration Mark

4.10.2010

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:

Avidyne EXP5000 Primary Flight Display
Avidyne EX5000 Multi-Function Display
Garmin GMA430 Audio Panel
Garmin GNS430W #1 NAV/COM/GPS
Garmin GNS430W #2 NAV/COM/GPS
Heads Up Technologies XM Weather Receiver

Installed the following:

1. Avidyne Entegra Integrated Flight Display System (R9) Silver Package consisting of dual IFDs, PN: 700-00083-000 (Left) and PN: 700-00083-001 (Right), Control Display Unit, PN: 700-00150-002 and Aircraft Configuration Module, PN: 700-00156-000 per manufacturer's installation manual, 600-00160-000, Rev 03, dated September 11, 2009. For regulatory compliance please reference Avidyne STC/AML # SA00282BO.
2. Avidyne Weather Data Link, MLB700, PN: 700-00159-000 in accordance with manufacturer's installation manual, 600-00174-000, Rev 04 dated May 13, 2007. For regulatory compliance please reference Avidyne R9 STC/AML # SA00282BO and the following TSO approvals:
 - FAA TSO-C157
3. PS Engineering PM8000B Audio Panel, PN: 050-890-0402 per manufacturer's installation manual 200-890-0101, Rev 1, dated February, 2010. For regulatory compliance please reference Avidyne R9 STC/AML # SA00282BO and the following TSO approvals:
 - FAA TSO-C50c and C35d

Fabricated instrument panel following original Manufacturers specifications.

R9 Silver package is single ADAHRS and uses the existing Magnetometer/OAT assembly.

New Audio Panel and Keyboard installed in the original radio rack. No structural modifications were needed.

MLB700 Installed in same location as removed XM Receiver. No structural modifications were needed.

Performed Maintenance Operation Check (MOC).

Performed Flight Test

Performed EMI Testing in accordance with AC 43.13-1B Para. 11-107, Interference Tests

Updated Aircraft Equipment Listing

Updated Aircraft Weight and Balance

Power assessment done in accordance with FAR requirements. Power load does not exceed 80% of the aircraft system capacity, determined by calculation.

Additional Sheets Are Attached



NEXAIR AVIONICS
 Mansfield Airport (1B9), Mansfield MA 02048

**REVISED AIRCRAFT WEIGHT AND BALANCE REPORT
 AND SUPPLEMENTAL EQUIPMENT LIST**

Aircraft Make and Model: Cirrus SR20
 Aircraft Serial Number: 1682
 Aircraft Registration Number: N176PT
 Date of This Revision: April 10, 2010
 Date of Previous Revision: Time of Delivery W&B 1-8-08

| | | ***** LONGITUDINAL ***** | | |
|----------------------------|--------------------------------------------|--------------------------|--------------|---------------------|
| QTY | DESCRIPTION | WEIGHT (lbs.) | ARM (in.) | MOMENT (lb./in.) |
| ITEMS INSTALLED | | | | |
| 1 | Avidyne R9 IFD #1 - IFD5000i | 17.80 | 114.79 | 2043.26 |
| 1 | Avidyne R9 IFD #2 - IFD5000i | 16.70 | 119.69 | 1998.82 |
| 1 | Avidyne FMS Keyboard - ACD215 | 2.30 | 125.51 | 288.67 |
| 1 | Avidyne Configuration Module - ACM | 0.20 | 108.79 | 21.76 |
| 1 | Avidyne Weather Data Link - MLB700 | 1.60 | 114.00 | 182.40 |
| 1 | Avidyne WX Antenna | 0.25 | 195.25 | 48.81 |
| 1 | Avidyne R9 Harness Assembly | 15.50 | 119.00 | 1844.50 |
| 1 | PS Engineering PM8000B-Avidyne Audio Panel | 1.34 | 121.50 | 162.81 |
| TOTAL ADDED ----- | | 55.69 | | 6591.04 |
| ITEMS REMOVED | | | | |
| 1 | Avidyne Entegra PFD - EXP5000 | 12.00 | 115.50 | 1386.00 |
| 1 | Avidyne Entegra MFD - EX5000 | 6.40 | 121.80 | 779.52 |
| 1 | Garmin GMA340 Audio Panel | 1.50 | 121.50 | 182.25 |
| 1 | Garmin GNS430W GPS | 5.00 | 121.00 | 605.00 |
| 1 | Garmin GNS430W GPS | 5.00 | 122.40 | 612.00 |
| 1 | Heads Up Technologies WX Receiver | 1.70 | 114.00 | 193.80 |
| TOTAL REMOVED ----- | | 31.60 | | 3758.57 |
| TOTAL CHANGE ----- | | 24.09 | | 2832.47 |

OLD WEIGHT & BALANCE, DATED: Time of Delivery 2008 2168.00 140.14 303816.00

NEW WEIGHT & BALANCE, DATED: April 10, 2010

BASIC EMPTY WEIGHT: 2192.09
LONGITUDINAL EWCG: 139.89
LONGITUDINAL MOMENT: 306648.47

DATE: April 10, 2010

PREPARED: David L. Fetherston A&P 3354619

NOTE:

It is the responsibility of the pilot in command to insure that the aircraft is properly loaded using the above Weight and Balance data and the owners manual loading charts.