West Star Aviation, Inc. - GJT

790 Heritage Way
Grand Junction, CO 81506
United States

Telephone: 970-243-7500 Fax: 970-242-5178

Work Order Detail

May 10, 2013

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install
Registration # N22MS **Serial #:** 35A209 **Repair Station:** **WTXR173J**

Customer: Evergreen Int'l Aviation
Address: Accounting
3850 NE Three Mile Lane
McMinnville, OR 97128

Contact Name: Ken Martz
Account Code: EVERHC
Target Date:
Invoice #:
Date Closed:

Status: Open
P.O. #:
Created: 4/22/2013
Posted:
Job #:

Parts/Consumables
Any parts and/or consumables necessary to accomplish the workscope are not included in the pr above, unless specifically stated otherwise.

De-Fuel
Aircraft requiring de-fueling will be assessed a charge of $0.22 per gallon.

Aircraft Down Time
The estimated down time for the work quoted above is ten (10) business days, depending on wo scope elected and other work accomplished in conjunction with the inspection or installation.

Payment Terms
25% of the avionics price is due at contract signing and 25% of the avionics price is due at aircra input. The balance of the contract plus any additional charges and change order requests are due aircraft delivery.

2013 Shop Rates
Lear Maintenance, Completions - Paint & Interior, Avionics Install & Repair
Standard - $102.00, Overtime/Premium - $153.00

Avionics Disclaimer
Pricing for the work quoted above is based on the assumption that there is adequate space and th the existing electrical/avionics interfaces and electrical power will accommodate the new installa and/or modification. Pricing also assumes that the aircraft wiring prints match the current aircra configuration and that all aircraft documentation is current. In the event one or more of these assumptions are wrong an estimate of the additional cost will be submitted to the customer for approval.

Part number(s) stated are subject to change pending design review. All equipment and furnishin removed will remain the property of West Star Aviation, Inc.

Item: 1 Preliminary **Part #:** 35A **Serial #:** 35A209
Squawk: 1 **Discrepancy:** Comply with Preliminary Inspection-

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Work Order Detail

May 10, 2013

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install

Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 1 Preliminary **Part #:** 35A **Serial #:** 35A209

Resolution: Complied with Preliminary Inspection IAW the requirements of 14CFR 145.211(c)(ii).

Aircraft hours= 15045.1
Aircraft landings= 9490
Engine #1 hours=
Engine #1 cycles=
Engine #2 hours=
Engine #2 cycles=
Engine #1 S/N:
Engine #2 S/N:

Signed Off: 4/22/2013 **By:** Scott Smith
Completed: **By:**

Item: 2 Avionics Install **Part #:** 35A **Serial #:** 35A209

Squawk: 1 **Discrepancy:** Dual Reconditioned UNS-1E FMS Systems

Resolution: Removed existing FMS units P/N 1013-41-011 S/N 828 and S/N 829 Wt. 6.50 lbs each
Rewired existing system IAW West Star Aviation Dwg. # 6875312-001
Installed new:
UNS 1E FMS units P/N 2017-42-211 S/N 196 and S/N 1186 Wt. 7.65 lbs. New GPS Antennas P/N 10706 S/N 16291 and S/N 16292 Wt. 0.5 lbs. SSDTU P/N 1408-00-2 S/N 2312

Performed post installation functional check IAW UNS-1E Installation Manual. System checks good on ground.

Signed Off: 5/8/2013 **By:** Steve Morris
Inspected: 5/8/2013 **By:** Scott Smith
Double Inspected: 5/8/2013 **By:** Craig Stout
Completed: **By:**

Step: 2.1.1 **Step Discrepancy:** Fabricated a closeout for the SSDTU to attach to the back of the pedestal. REF: WS802
Fabricated a closeout for the SSDTU on the back of the pedestal. The closeout was made using 0.063 2024 alclad and 0.050 2024 extrusion. The closeout was mounted to the pedestal using (8) 8-32 screws & nutplates. All fastners were installed IAW AC43. All parts were chemicaly treated, primered and painted to match the pedi
Step Resolution: al.
Signed Off: 05/06/2013 **By:** Don Johnson
Inspected: 05/08/2013 **By:** Doug Hoogeveen

Step: 2.1.2 **Step Discrepancy:** Remove Flitefone Antenna p/n S65-1016-1 at F.S. 249.59 and patch with a 2024-T3 .125" blank plate, that matches the antenna foot print.
Step Resolution:
Signed Off: 04/29/2013 **By:** Jason Willard
Inspected: 04/29/2013 **By:** Doug Hoogeveen

Step: 2.1.3 **Step Discrepancy:** Remove Flitefone R/T
Step Resolution: Removed Flitefone R/T P/N 400-0033 S/N 3294 Wt. 7.1 lbs.
Signed Off: 05/08/2013 **By:** Steve Morris

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install

Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 2 Avionics Install **Part #:** 35A **Serial #:** 35A209

Inspected: 05/08/2013 **By:** Scott Smith

Step: 2.1.4 **Step Discrepancy:** Remove Flitefone control
Step Resolution: Removed Flitefone control P/N 400-0032-2 S/N 1577 Wt. 1.0 lbs.
Signed Off: 05/08/2013 **By:** Steve Morris
Inspected: 05/08/2013 **By:** Scott Smith

Step: 2.1.5 **Step Discrepancy:** Remove Flitefone cockpit handset
Step Resolution: Removed Flitefone cockpit handset P/N 400-0031-1 S/N 0380 Wt. 1.13 lbs.
Signed Off: 05/08/2013 **By:** Steve Morris
Inspected: 05/08/2013 **By:** Scott Smith

Step: 2.1.6 **Step Discrepancy:** Remove Flitefone cabin handset
Step Resolution: Removed Flitefone cabin handset P/N 400-0030-1 S/N 2759 Wt. 2.7 lbs.
Signed Off: 05/08/2013 **By:** Steve Morris
Inspected: 05/08/2013 **By:** Scott Smith

Step: 2.1.7 **Step Discrepancy:** Engraved the C/B overlay for the dual Universal UNS-1E FMS's.
Step Resolution:
Signed Off: 05/08/2013 **By:** Jason Willard
Inspected: 05/08/2013 **By:** Doug Hoogeveen

Step: 2.1.9 **Step Discrepancy:** Touch up paint on the antenna patch on the belly.
Prepped antenna patch for paint, epoxy primed, painted to match a/c. All work done IAW m/m standard practices chapter 20. MW 5/1/13
Step Resolution:
Signed Off: 05/01/2013 **By:** Mike Wilson
Inspected: 05/01/2013 **By:** Wayne O'Hara

Step: 2.1.10 **Step Discrepancy:** Restock fee's for return of two units from POG13-05399.
Step Resolution: Returned two FMS, GPS, VID/GRA s/n 1114 and 387 to vendor for credit.
Signed Off: 05/10/2013 **By:** John Neverdahl
Inspected: 05/10/2013 **By:** John Neverdahl
Double Inspected: 05/10/2013 **By:** John Neverdahl

Squawk: 2 **Discrepancy:** Interior R&I
Resolution: Removed and reinstalled interior as necessary.
Signed Off: 5/8/2013 **By:** Steve Morris
Completed: **By:**

Squawk: 3 **Discrepancy:** Modify pedestal to allow installation of DTU
Remove FliteFone System (R/T, Antenna, Control and 2 Handsets)
Resolution: Modified pedestal to allow installation of DTU.
Removed Flitefone system and capped and stowed wiring.
Flitefone R/T P/N 400-0033 S/N 3294 Wt. 7.1 lbs.
Flitefone cockpit handset P/N 400-0031-1 S/N 0380 Wt. 1.13 lbs.
Flitefone control P/N 400-0032-2 S/N 1577 Wt. 1.0 lbs.
Flitefone cabin handset P/N 400-0030-1 S/N 2759 Wt. 2.7 lbs.
Flitefone Antenna P/N S65-1016-1 S/N 5052 Wt. 1.0 lbs
Signed Off: 5/8/2013 **By:** Steve Morris
Inspected: 5/9/2013 **By:** Scott Smith
Double Inspected: 5/9/2013 **By:** Hugh Hasley

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Work Order Detail

May 10, 2013

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install
Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 2 Avionics Install **Part #:** 35A **Serial #:** 35A209
Completed: **By:**

Step: 2.3.1 **Step Discrepancy:** Mod pedestal and fabricated Dsuz blank plates.
Step Resolution:
Signed Off: 05/08/2013 **By:** Jason Willard
Inspected: 05/08/2013 **By:** Doug Hoogeveen

Item: 3 Airframe Maintenance **Part #:** 35A **Serial #:** 35A209

Squawk: 1 **Discrepancy:** Comply with IRN D1223000, 3 Month, 100 Hour Inspection of #1 and #2 Ni-Cad Emergency Power Supply Battery (PS-823)
Resolution: Complied with IRN D1223000, 3 Month, 100 Hour Inspection of #1 and #2 Ni-Cad Emergency Power Supply Battery (PS-823) IAW LJ 35 MM chapter 24. Ops check good.
Signed Off: 4/23/2013 **By:** Cody Cutshall
Inspected: 4/25/2013 **By:** Duane Hamilton
Double Inspected: 4/29/2013 **By:** John Bauer
Completed: 4/30/2013 **By:** Jason Blust

Squawk: 2 **Discrepancy:** Comply with IRN G1222002, (600-Hour / 12-Month or 200-Hour / 3-Month) Lead Acid Battery Inspection (Captive Electrolyte)
Resolution: Removed #1 Lead acid battery P/N: RG-380E-44 S/N: 40455612, and #2 Lead acid battery P/N: RG-380E-44 S/N 40455637 and forwarded to accessory department. Work perrformed IAW LJ 35A MM chapter 24 CC 04-22-2013 Received Tested #1 Battery P/N RG-380E/44 S/N 40455612 and #2 Battery P/N RG-380E/44 S/N 40455637 and installed IAW learjet 35 M/M Chapter 24-32-01. 4-25-13 CLJ.
Signed Off: 4/30/2013 **By:** Cody Jones
Inspected: 4/30/2013 **By:** Duane Hamilton
Double Inspected: 5/1/2013 **By:** John Bauer
Completed: **By:**

Step: 3.2.1 **Step Discrepancy:** Comply with R&R of Lead Acid Batteries for Inspection (Captive Electrolyte)
Step Resolution: Removed #1 Lead acid battery P/N: RG-380E-44 S/N: 40455612, and #2 Lead acid battery P/N: RG-380E-44 S/N 40455637 IAW LJ 35A MM chapter 24 CC 04-22-2013 Received Tested #1 Battery P/N RG-380E/44 S/N 40455612 and #2 Battery P/N RG-380E/44 S/N 40455637 and installed IAW learjet 35 M/M Chapter 24-32-01. 4-25-13 CLJ.
Signed Off: 04/30/2013 **By:** Cody Jones
Inspected: 04/30/2013 **By:** Duane Hamilton

Step: 3.2.2 **Step Discrepancy:** Comply with IRN G1222002, (600-Hour / 12-Month or 200-Hour / 3-Month) Lead Acid Batteries Inspection (Captive Electrolyte). Battery P/N: RG-380E/44 S/N: 40455612,
Step Resolution: Top charged, performed capacity check. Battery passed capacity check at 100%. Recharged IAW Concorde CMM 24-30-71, DWG. NO. 5-0171, Rev M, Dated, Mar. 15/2012.
Signed Off: 04/24/2013 **By:** Jeff Sorensen
Inspected: 04/24/2013 **By:** Mark Neverdahl
Double Inspected: 04/25/2013 **By:** Rene Medina

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install

Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 3 Airframe Maintenance **Part #:** 35A **Serial #:** 35A209

Step: 3.2.3

Step Discrepancy: Comply with IRN G1222002, (600-Hour / 12-Month or 200-Hour / 3-Month) Lead Acid Batteries Inspection (Captive Electrolyte). Battery P/N: RG-380E/44 S/N 40455637

Step Resolution: Top charged, performed capacity check. Battery passed capacity check at 100%. Recharged IAW Concorde CMM 24-30-71, DWG. NO. 5-0171, Rev M, Dated, Mar. 15/2012.

Signed Off: 04/24/2013 **By:** Jeff Sorensen

Inspected: 04/24/2013 **By:** Mark Neverdahl

Double Inspected: 04/25/2013 **By:** Rene Medina

Squawk: 3

Discrepancy: R/H standby pump is leaking from case drain.

Resolution: Removed standby pump P/N: RR12670F/ 2380060-29, S/N: B-7161 and replaced with overhauled standby pump P/N: RR12670F/ 2380060-29, S/N: B-4094 IAW LJ 35 MM chapter 28 ops and leak check good.

Signed Off: 4/29/2013 **By:** Cody Cutshall

Inspected: 4/29/2013 **By:** Duane Hamilton

Double Inspected: 5/1/2013 **By:** John Bauer

Completed: **By:**

Squawk: 4

Discrepancy: R/H wing sump drain is leaking.

Resolution: Removed and replaced O-rings in sump drain and O-ring on defuel valve lever shaft. IAW LJ 35A MM chapter 28 leak check satisfactory.

Signed Off: 4/29/2013 **By:** Cody Cutshall

Inspected: 4/29/2013 **By:** Duane Hamilton

Double Inspected: 5/1/2013 **By:** John Bauer

Completed: **By:**

Squawk: 5

Discrepancy: R/H wing kidney panel leaking.

Resolution: Removed leaking fastener, replaced seal washer on fastener and reinstalled IAW LJ 35 MM chapter 28 leak check satisfactory.

Signed Off: 4/29/2013 **By:** Cody Cutshall

Inspected: 4/29/2013 **By:** Duane Hamilton

Double Inspected: 5/1/2013 **By:** John Bauer

Completed: **By:**

Squawk: 6

Discrepancy: R/H MLG forward fairing has several dome nutplates leaking fuel.

Resolution: Removed R/H MLG forward fairing cleaned old sealant from around and inside leaking nutplates. Resealed fairing and installed R/H MLG forward fairing IAW LJ 35 MM chapter 28 leak check good.

Signed Off: 4/29/2013 **By:** Cody Cutshall

Inspected: 4/29/2013 **By:** Duane Hamilton

Double Inspected: 5/1/2013 **By:** John Bauer

Completed: **By:**

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install

Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 3 Airframe Maintenance **Part #:** 35A **Serial #:** 35A209

Squawk: 7 **Discrepancy:** Comply with Pre-Delivery Inspection

Resolution: Tires were found to be low, serviced IAW LJ 31 MM chapter 12. Oxygen and nitrogen were found to be low, serviced oxygen and nitrogen IAW LJ MM chpater 12 DP 5-7-13. Completed pre-delivery inspection IAW West star 31A pre delivery form.

Signed Off: 5/8/2013 **By:** Cody Cutshall (electronic signature)

Inspected: 5/8/2013 **By:** Duane Hamilton (electronic signature)

Double Inspected: 5/9/2013 **By:** Hugh Hasley (electronic signature)

Completed: **By:**

Item: 4 Avionics Repair **Part #:** 35A **Serial #:** 35A209

Squawk: 1 **Discrepancy:** Comply with RVSM Recertification

ent done hh

Resolution: Certified the #1 and #2 pitot/static systems IAW Learjet RVSM ICA AMI-STC-LJ3536. Certified the #1 and #2 automatic altitude reporting systems IAW 14 CFR part 43, appendix E para (c). Certified the #1 ADDU p/n 9d-80130-1 s/n 10519and the #2 ADDU p/n 9d-80130-1 s/n 41867 and the Standby Altimeter p/n 16650-1150 s/n 171575 IAW Learjet RVSM ICA AMI-STC-Lj3536 and 14 CFR, part 43, appendix E para (b) to an altitude of 45,000 feet.

Certified the # 1 transponder p/n 622-1270-001 s/n 1116 and the #2 transponder p/n 622-1270-001 s/n 12937 IAW 14 CFR part 43, appendix F para (a thru d). Checked Pitot/Static probe alignment IAW Learjet RVSM ICA AMI-STC-LJ3536. The above certifications meet the requirements of 14 CFR 91.411 and 91.413 and for flight into RVSM airspace.
Flight test required for altitude hold

Signed Off: 5/3/2013 **By:** Stan Sinclair (electronic signature)

Inspected: 5/8/2013 **By:** Scott Smith (electronic signature)

Double Inspected: 5/8/2013 **By:** Craig Stout (electronic signature)

Completed: **By:**

Squawk: 2 **Discrepancy:** Comply with VOR check

Resolution: Verified VOR operation and bearing error is within spec. as per FAR 91.171 No faults detected.

Signed Off: 5/8/2013 **By:** Stan Sinclair (electronic signature)

Inspected: 5/8/2013 **By:** Scott Smith (electronic signature)

Double Inspected: 5/8/2013 **By:** Craig Stout (electronic signature)

Completed: **By:**

Squawk: 3 **Discrepancy:** Standby altimeter vibrator inop

entryu done hh

Resolution: Removed P/N 11650-1150 S/N 171152
Installed P/N 11650-1150 S/N 171575

Tested installed alimeter vibrator, checks good
performed leak test, Checks good
Altimeter tested on squawk 29019 step 4.1

Signed Off: 5/3/2013 **By:** Stan Sinclair (electronic signature)

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Work Order Detail

May 10, 2013

Work Order: 29019 **Title:** Evergreen Int'l Aviation **Department:** Avionics Install

Registration # N22MS **Serial #:** 35A209 **Repair Station:** WTXR173J

Item: 4 Avionics Repair **Part #:** 35A **Serial #:** 35A209

Inspected: 5/8/2013 **By:** Scott Smith

Double Inspected: 5/8/2013 **By:** Craig Stout

Completed: **By:**

Item: 5 Quality Assurance **Part #:** 35A **Serial #:** 35A209

Squawk: 1 **Discrepancy:** Comply with Return to Service

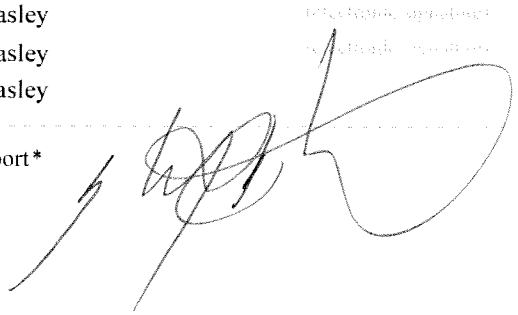
Resolution: I certify that this aircraft has been inspected as required by 14CFR 91.409 (f)(3), and has been determined to be in an airworthy condition and approved for return to service with respect to the work performed. Pertinent details are on file at this repair station under the above work order.

Signed Off: 5/10/2013 **By:** Hugh Hasley

Inspected: 5/10/2013 **By:** Hugh Hasley

Completed: 5/10/2013 **By:** Hugh Hasley

* End of Report *



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	Serial No.	
N22MS	35A-209	
Make	**Model**	**Series**
LEARJET	35A	

2. Owner

Name *(As shown on registration certificate)*	Address *(As shown on registration certificate)*
EVERGREEN EQUITY INC	Address 3850 THREE MILE LN City MCMINNVILLE State OR Zip 97128-9402 Country UNITED STATES

3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial Number
☐	X	AIRFRAME		*(As described in Item 1 above)*	
☐	☐	POWERPLANT			
☐	☐	PROPELLER			
☐	☐	APPLIANCE	Type Manufacturer		

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency		
Name **West Star Aviation**	☐	U.S. Certificated Mechanic	☐ Manufacturer
Address **796 Heritage Way**	☐	Foreign Certificated Mechanic	C. Certificate No.
City **Grand Junction** State **CO**	☒	Certificated Repair Station	**WTXR173J**
Zip **81506** Country **USA**	☐	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 ☐

Signature/Date of Authorized Individual

Scott Smith MAY/08/2013

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 Flt 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. WTXR173J

Signature/Date of Authorized Individual

Scott Smith MAY/08/2013

FAA Form 337 (10-06)

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.)

N22MS	MAY/08/2013
NATIONALITY & REGISTRATION MARK	DATE

The following Supports the Installation of Dual Universal Avionics UNS-1E Flight Management System (FMS) IAW West Star Aviation Drawing No.6875312-001, Rev IR, dated APR/11/2013

Removed the following equipment for this installation:

- Universal UNS-1M (2ea) P/N 1013-41-011 @ F.S.184.78

Installed the following components for this installation:

- Universal UNS-1E (2ea) P/N 2017-42-211 @ F.S. 184.78
- GPS Antenna (2ea) P/N 10706 2 F.S. 234.19 & 271.99
- Solid State Data Transfer Unit - SSDTU P/N 1408-00-2 @ F.S. 198.80
- Configuration Module (2ea) P/N 10171 @ F.S. 184.78

The new Universal Avionics UNS-1E are replacement upgrades for the UNS-1M. The UNS-1E requires the installation of a Solid State Data Transfer Unit, SSDTU, for installation and upgrade of the navigational data. The existing GPS antennas were removed and the new GPS antennas were reinstalled in the existing locations. No structural modifications for the antennas were required. The SSDTU was installed at the aft end of the pedestal. Reference West Star Aviation Form802 for details regarding the SSDTU installation.

The electrical aspects of the UNS-1E FMS System was installed IAW West Star Aviation Drawing No. 6875312-001, Rev IR, dated APR/11/2013 and approved by FAA Form 8110-3, dated May/08/2013, DERT-230135-CE

A copy of FAA Approved Airplane Flight Manual Supplement, AFMS, Document No. 6855312-001, Rev IR, dated MAY/01/2013, DERT-500117CE, has been provided to the owner / operator.

A successful post installation check out was accomplished IAW Universal Avionics Corp. UNS-1E & UNS-1C+ Flight Management Systems Technical Manual, Rev 1, dated May/01/2012

Upon completion of the above listed alteration, a successful EMI/EMC source / victim test was performed IAW West Star Aviation, Document No. 00-300T001, Rev A, dated NOV/28/2007

Reference West Star Aviation Amendment to the Equipment List and Weight and Balance Form, dated MAY/08/2013 for information and details to installed and removed equipment for this alteration.

Equipment was installed in a manner that will not interfere with or adversely affect the safe operation of the aircraft.

Equipment listed above is "ON CONDITION" and is checked for operation and security at existing inspection intervals

Wiring conforms to MIL-C-27500, MIL-W-22759, and M17/176-00002

The above installation was accomplished IAW the following criteria:

- Lear Jet 35A, S/N 35A-209 Avionics Wiring Diagram Package
- West Star Aviation Drawing No. 6875312-001
- 14 CFR 25 Subpart F.
- AC43.13-1B, Chapter 4, Chapter 6, Chapter 7, Chapter 10, Chapter 11.
- AC43.13-2A, Change 2, Chapter 1, Chapter 2, Chapter 3, Chapter 13.

x☐ Additional Sheets Are Attached

FAA Form 337 (10-06)

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

MANUFACTURER	MODEL	SERIAL	REGISTRATION #	DATE
LEARJET	35A	35A-209	N22MS	MAY/08/2013

1. **INTRODUCTION**
The following instructions for Continued Airworthiness (ICA) satisfy the requirements of 14 CFR 25.1529, and provide the information necessary to complete the on-going maintenance and inspections for the installation described herein.

2. **DESCRIPTION**
A system description, including maintenance, wiring diagrams, troubleshooting and functional tolerances information is contained in the following document(s):
- West Star Aviation Drawing No. 6875312-001, Rev IR, dated APR/11/2013
- Universal Avionics Corp. UNS-1E & UNS-1C+ Flight Management Systems Technical Manual, Rev 1, dated MAY/01/2012

3. **CONTROL AND OPERATION INFORMATION**
- West Star Aviation Airplane Flight Manual Supplement, Document No. 6855312-001, Rev IR, dated MAY/01/2013

4. **SERVICING INFORMATION**
- This equipment may be serviced by any appropriately rated mechanic, repairman, or repair station

5. **MAINTENANCE INSTRUCTIONS**
Continued airworthiness is contingent upon compliance with the following inspection items. These items shall be completed in conjunction with the Lear Jet 35A Phase B , or other approved program, at intervals not to exceed 24 months, or upon any system component removal and replacement.
- Condition and security of mounting, associated structure, and connectors.
- Condition and security of wiring, wiring support and routing.
- System functional test.

6. **TROUBLESHOOTING INFORMATION**
- West Star Aviation Drawing No. 6875312-001, Rev IR, dated APR/11/2013
- Universal Avionics Corp UNS-1E & UNS-1C+ Flight Management Systems Technical Manual, Rev 1, dated MAY/01/2012

7. **REMOVAL AND REPLACEMENT INFORMATION**
N/A

8. **DIAGRAMS OF ACCESS PANELS**
N/A

9. **SPECIAL INSPECTION TECHNIQUES AND REQUIREMENTS**
N/A

10. **PROTECTIVE TREATMENT INFORMATION**
N/A

11. **STRUCTURAL FASTENER DATA**
N/A

12. **LIST OF SPECIAL TOOLS**
N/A

13. **COMMUTER AIRCRAFT**
N/A

14. **RECOMMENDED OVERHAUL INTERVAL**
N/A

15. **AIRWORTHINESS LIMITATIONS**
Continued airworthiness is contingent upon compliance with all of the above listed inspection items. No additional life limited components are introduced by the changes detailed on the attached FAA Form 337.

16. **REVISION**
This document may be revised by submitting a copy of the original FAA Form 337 and the revised ICA to the Aircraft Registration Branch in Oklahoma City, and making an entry in the aircraft records indicating the current revision.

FAA APPROVED

AIRPLANE FLIGHT MANUAL SUPPLEMENT

UNIVERSAL AVIONICS SYSTEMS CORPORATION (UASC)

DUAL UNS-1E MULTI-SENSOR LONG RANGE

FLIGHT MANAGEMENT SYSTEM (FMS)

SOFTWARE VERSION SCN 803.2

AIRCRAFT MAKE: LEARJET

AIRCRAFT MODEL: 35A

AIRCRAFT SERIAL NO: 209

AIRCRAFT REG. NO: N22MS

This supplement must be attached to the FAA Approved Airplane Flight Manual when Universal Avionics Corporation (UASC) Dual UNS-1E Flight Management System (FMS) with SCN 803.2 are installed in accordance with FAA Form 337 dated _____.

The information contained herein supplements or supersedes the basic Airplane Flight Manual for the Learjet 35A only in those areas listed. For limitations, procedures and performance information not contained in this supplement consult the basic Airplane Flight Manual.

FAA APPROVED: **See Page 2**

US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION STATEMENT OF COMPLIANCE WITH THE FEDERAL AIRWORTHINESS STANDARDS			1. DATE MAY/01/2013
AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATON			
2. MAKE Learjet	3. MODEL NO. 35A	4. TYPE *(Aircraft, Engine, Propeller etc.)* Airplane	5. NAME OF APPLICANT West Star Aviation
LIST OF DATA			
6. IDENTIFICATION	7. TITLE		
West Star Aviation Document 68553 12.001 Revision IR	FAA Approved Airplane Flight Manual Supplement For Installation of Dual Universal UNS-1E Flight Management Systems in a Learjet Model 35A This approval is valid for Learjet 35A, serial number 209 only.		
8. PURPOSE OF DATA In Support of an FAA Form 337 Major Alteration			
9. APPLICABLE REQUIREMENTS *(List specific sections)* 14CFR Part 25 (Through Amendment 25-120) – 25.1501(a), (b); 25.1581(a), (b), (d); 25.1585(a), (b)			
10. CERTIFICATION – Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under 14 CFR Part 183, data listed above and on the attached sheets numbered _____ have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed ☐ Recommend approval of these data I / XX Therefore ☒ Approve these data			
11. SIGNATURE(S) OF DESIGNATED ENGINEERING REPRESENTATIVE(S)		12. DESIGNATION NUMBER(S)	13. CLASSIFICATION(S)
Mark D. Haycock		DERT500112CE	Flight Analyst

FAA FORM 8110-3 (03/10) SUPERSEDES PREVIOUS EDITION

LOG OF REVISIONS

REVISION NUMBER	REVISED PAGES	DESCRIPTION OF REVISION	FAA APPROVAL
IR	All	Initial Release	M.D. Haycock MAY/01/2013

Vertical black lines in the margin indicate the revised portions of affected pages.

TABLE OF CONTENTS

SECTION I - GENERAL

A. INSTALLATION DESCRIPTION

The Dual Universal Avionics Systems Corporation (UASC) UNS-1E Flight Management System (FMS) is a multi-sensor navigator with an internal GNSS sensor. The No. 1 Control Display Unit (CDU) and No. 2 CDU are located in the pedestal. The FMS's receive air data information from an existing Air Data Computer and supply navigation and steering to the Flight Instruments and the Flight Control System. A Steering Interface Unit is installed to provide lateral roll steering capability to the flight director/autopilot.

The internal GNSS sensor incorporates Receiver Autonomous Integrity Monitoring (RAIM). A Solid State Data Transfer Unit (SSDTU) is used to load the periodic navigation database updates via Universal Serial Bus (USB) and Secure Digital (SD) mass storage devices.

The FMS's contain software SCN 803.2 that provides capability for point-to-point navigation, as well as SID's, STARS, holding patterns and approaches. SCN 803.2 complies with requirements of TSO-C115b and TSO-C129a, & TSO-C144 when interfaced to the internal GPS sensor, which is TSO-C146b certified.

Lateral and vertical steering is provided for enroute, terminal area and approach operations, including GPS and GPS overlay approaches.

B. LATERAL NAVIGATION APPROVALS

Provided the UNS-1E multi-sensor navigation system is receiving usable signals, it has been demonstrated capable of and has been shown to meet the accuracy specifications of:

- VFR/IFR enroute oceanic and remote, enroute domestic, terminal, precision instrument Approach (ILS) and non-precision instrument approaches (LOC, BC, GPS and GPS-overlay NDB, VOR, VOR-DME and RNAV) operations within the U.S. National Airspace System using the WGS-84 coordinate reference datum in accordance with the criteria of Advisory Circular AC 20-130A,

  NOTE: Satellite navigation data is based upon use of only the Global Positioning System (GPS) operated by the United States and augmented by the SBAS provider.

  This does not constitute an operational approval.

- The Jeppesen database complies with the requirements for processing navigation data for use in UASC Flight Management Systems (SCN 803.x) under RTCA / DO-200A Standards for Processing Aeronautical Data in accordance with the criteria of Advisory Circular AC 90-100A.

- The UNS-1E when operating with RAIM GPS as the only navigation sensor, is approved for IFR enroute, terminal, and approach operations in accordance with AC 20-138A.

- B-RNAV operation within the European Airspace System in accordance with the criteria of JAA Temporary Guidance Material, Leaflet No.2, Rev. 1; AMJ 20X2 and Leaflet No.3, Rev.1.

- The Dual FMS installation with internal GPS sensors, as installed, complies with the requirements of FAA Notice 8110.60 for GPS primary means of Class II navigation in oceanic and remote airspace (including NAT MNPS in accordance with AC 120-33 and AC91-49, AC25-4 and FAR Part 121, Appendix G, Section 6), when used in conjunction with the Universal Flight Planning Program, PN 10751 with SCN 25 or later FAA approved version.

  This does not constitute an operational approval.

SECTION I – GENERAL (Continued)

RNP – Approvals

- The dual multi-sensor FMS installation integrates dual GPS sensors and complies with equipage and accuracy requirements of FAA Order 8400.12A paragraph 12b(4), for operations in RNP-10 airspace.

  This does not constitute an operational approval.

- This installation also complies with equipage and accuracy requirements of AC 90-96 paragraph 7b(1), 7d(3)(a) 2, 7d(3)(e) for BRNAV (RNP-5) when operating in Class I airspace, without time limits.

Table 1 details time limitations placed on RNP-5 (BRNAV) operations with minimum sensors in NAV mode.

Sensors available	**RNP-5 (BRNAV) Limitations** (Minimum single FMS required)
1 GPS only	No time limitation when used in conjunction with UFP
VOR/DME	No time limitation
DME/DME	No time limitation

Table 1.

- Precision Area Navigation (P-RNAV) – Operation in European Designated Airspace in accordance with AC20-130A, AC90-96A and JAA TGL-10 is approved provided at least one UNS-1E is receiving useable signals from one or more of the following:

a. GPS
b. One VOR/DME or multiple DME's

NOTE 1: Selected FMS approach procedure must not be manually manipulated
NOTE 2: RNP flight operations are subject to GPS satellite availability and/or navaid coverage for the selected route. Navigation based on DME updating modes is permitted but may be restricted by the availability or performance of the applicable ground navaids. Crew should deselect ground navaids that are not to be used for navigation.

This does not constitute an operational approval.

C. VERTICAL NAVIGATION APPROVAL

The UNS-1E FMS System as installed meets the requirements for VFR/IFR enroute, terminal area and approach VNAV (baro-VNAV) operations within the conterminous United States and Alaska in accordance with criteria of AC 20-129 for advisory and flight guidance system coupled operations

SECTION II - LIMITATIONS

1. The UNS-1E Operator's Manual, Report No. 2423sv803/903, FEB 2008 (or later revision), must be available to the flight crew whenever navigation is predicated upon the use of the UNS-1E Flight Management System.

2. The system must utilize software version **SCN 803.2**

3. The UNS-1E does not meet the airworthiness requirements for GNSS or SBAS augmentation (WAAS). Therefore flight operations using LPV or LNAV/VNAV approach minimums are prohibited.

   NOTE

   Approaches using baro VNAV approved in accordance with AC 20-129 are not based upon any augmentation. Therefore approaches using baro-VNAV are approved but are limited to the standard landing minimums assuming no vertical guidance.

4. IFR Enroute and Terminal navigation is prohibited unless the pilot verifies the currency of the database or verifies each selected waypoint for accuracy by reference to current approved data.

5. The UNS-1E is approved for lateral Flight Director and autopilot coupled GPS, NDB, RNAV, VOR-DME, AND VOR approaches only when the UNS-1E is in FMS Approach Mode (which provides expanded HSI deviations).

6. Instrument approaches must be accomplished in accordance with approved instrument approach procedures that are retrieved from the FMS database. The FMS database must incorporate the current update cycle.

   a. Instrument approaches must be conducted in the Approach mode, and GPS Integrity monitoring (when using GPS for approach guidance) must be available at the Final Approach Fix, as indicated to the pilot on the PFD by the FMS Status "**GPS INTEG**" (amber) annunciator being off.

   b. When an alternate airport is required, pilots may use an alternate based on LNAV minimums as long as the approach procedure is not marked Alternate NA.

   c. GPS may only be used for approach guidance if the reference coordinate datum system for the approach is WGS-84.

      (NOTE: GPS will remain selected for all approved GPS or GPS overlay approaches supplied in the navigation database.)

   d. The FMS is approved for pilot-defined VFR approaches as a VFR pilot aid only.

      NOTE: All sensors remain selected for VFR approaches.

6. Navigation cannot be predicated on the use of non-GPS long range sensors alone while in terminal areas or during departures from or approaches to airports or into valleys; e.g., between peaks in mountainous terrain or below Minimum Enroute Altitude (MEA).

7. The aircraft must have AC90-100 and AC90-101 approved navigation equipment installed and operating appropriate for the route of flight.

SECTION II – LIMITATIONS (CONTINUED)

8. Displayed UNS-1E navigation parameters are referenced to Magnetic North. Operation of the aircraft is limited to latitudes between N73° and S60°. To operate north of latitude N73° or south of S60°, unless magnetic variation is manually entered by the pilot.

9. When using VNAV, the altimeter on each pilot's panel must be used as the altitude reference for all operations.

10. Fuel display parameters are advisory only and do not replace primary fuel quantity or fuel flow gauges for fuel load and range planning.

11. The MAP display must not be used for pictorial situational awareness when a DME-arc procedure is the active TO leg. The MAP display cannot depict a DME arc.

SECTION III - EMERGENCY PROCEDURES

No change to FAA Approved Airplane Flight Manual.

SECTION IV - NORMAL PROCEDURES

1. OPERATION

Normal operating procedures are outlined in the UNS-1E Operator's Manual, 2423sv803/903, FEB 2008 (or later revision).

2. NAVIGATION DATABASE VERIFICATION

After power-on self-tests have been completed, the INITIALIZATION page will appear. The term 'NAV DATABASE EXPIRES' followed by a date will be displayed. If the actual date is later than that which is displayed, the FMS will notify the pilot with a "DATABASE EXPIRED" message. Refer to the Operator's Manual for navigation database update instructions.

SECTION IV - NORMAL PROCEDURES (CONTINUED)

3. SYSTEM ANNUNICATORS

The FMS generates outputs for the following external annunciators on the pilot's and copilot's instrument panel:

FMS ANNUNCIATORS	COLOR	DESCRIPTION
MSG	Amber	Illuminates to notify the pilot that a FMS message is present on the CDU.
WPT	Amber	Illuminates (steady) to indicate waypoint alert fifteen seconds prior to waypoint in enroute mode and five seconds prior in approach mode. When this annunciator flashes, it indicates that an upcoming vertical Flight Path Angle (FPA) change is within two minutes.
GPS INTEG	Amber	Illuminates to indicate GPS Integrity is outside of the allowable limit for phase of flight (2.0-nm enroute, 1.0 nm terminal and approach transition, and 0.3-nm final approach segment). See Section 4, Abnormal Procedures.
SXTK	Amber	Illuminates to indicate selected crosstrack is active.
HDG	Green	FMS is in Heading Mode
APP	Green	Illuminates to indicate an approach has been activated.
VHF NAV	Green	Illuminates to indicate VHF Navigation is active
LRN	Green	Illuminates to indicate FMS Long Range Navigation is active
SIU FAIL	Amber	Illuminates if the Steering Interface Unit fails or power is lost

4. AIRCRAFT INTEGRATION

a. Display of UNS-1E information:

UNS-1E FMS Navigation data is displayed on the pilots and copilots ADI/HSI by pressing the **VHF NAV / LRN** annunciator switch, located below the pilot or copilot HSI, until the **LRN** portion illuminates. The following display data will then be available from the onside UNS-1E:

A) Bearing to waypoint
B) Distance to waypoint
C) Crosstrack deviation
D) To/From pointer
E) Nav valid flag
F) Vertical Deviation (only when valid)
G) Vertical Deviation valid flag

CDI Deviation Scale Factors for Full Scale

MODE	LATERAL	VERTICAL
Enroute	2.0 nm	1500 ft
Terminal	1.0 nm	492 ft
Approach	2 degrees to 0.3nm, then linear **NOTE:** (0.3 nm is the default and may be designated by database.)	GPA/4

SECTION IV - NORMAL PROCEDURES (CONTINUED)

4. AIRCRAFT INTEGRATION

b. Enroute and Terminal Area Flight Director and Autopilot Operation

Each FMS may be selected for display on the onside ADI/HSI by means of the **VHF NAV/LRN** navigation transfer switches. The #1 UNS-1E FMS will supply steering information to the Flight Director by selection of the NAV button on the Flight Guidance Panel. When the FMS is selected for display on the HSI, the coursed pointer will be driven by the FMS to the desired track. The HSI will display cross track error, To/From, FMS Nav valid flag and FMS distance. With a valid VNAV leg defined on the FMS, vertical deviation will be displayed and may be coupled using the VNAV button on the flight guidance panel.

c. Approach Operation

ILS, LOC or BC approaches can be retrieved from the FMS database and linked to the flight plan, but cannot be armed or activated as FMS approaches. The FMS can be used to provide navigation up to the final approach course, at which point the flight director navigation source must be changed to display raw ILS data, which can then be coupled to the Flight Guidance System. **APPR** annunciators will illuminate whenever FMS Approach Mode is active.

***NOTE:* GPS will remain selected for GPS and GPS-overlay approved approaches from the navigation database. GPS will automatically be deselected for non-GPS approaches. (Refer to Operator's Manual, Section III, Approach Procedures).**

Lateral Approaches without using baro-VNAV

GPS, NDB, RNAV, VOR, VOR-DME and VFR approaches may be linked into the flight plan and then laterally coupled to the Flight Director/Autopilot. The pilot should select NAV on the Flight Guidance Panel.

Lateral Approaches using baro-VNAV

GPS, NDB, RNAV, VOR, VOR-DME and VFR approaches may be linked into the flight plan and then laterally and vertically coupled to the Flight Director/Autopilot. The pilot should select NAV on the Flight Guidance Panel until the FMS Approach mode activates. When FMS approach modes becomes active, select APPR on the flight guidance panel.

SECTION V - ABNORMAL PROCEDURES

1. If 'GPS RAIM' becomes unavailable (as indicated by an amber **MSG** and **INTEG** annunciation), the pilot should monitor position by cross-reference to other navigation sources as necessary.

2. Should an FMS system component fail, in most cases the CDU will go blank or the **MSG** light will annunciate. Depressing the CDU MSG key will display the Message Page, which will indicate the component which has failed.

3. If sensor information is intermittent or lost, utilize remaining operational navigation equipment as required.

4. If VNAV information is intermittent or lost, disengage VNAV and use altimeter for vertical reference.

5. Should the Steering Interface Unit (SIU) fail or a power loss is detected, the **SIU Fail** annunciator will illuminate. If the flight director / autopilot (FD/AP) is engaged under this circumstance, the FD/AP will revert to Heading mode. When power is restored to the SIU, the FD/AP will revert to level mode.

   If the SIU circuit breaker is pulled, FD/AP operation with the UNS-1E reverts to Left/Right CDI needle steering and lateral roll steering is not used. When power is reapplied to the SIU with the FD/AP engaged and the UNS-1E displayed on the HSI, the FD/AP will revert to level mode. **NAV** or **HDG** mode can then be selected.

   Should a UNS-1E invalid occur with the FMS coupled to the FD/AP, the autopilot will automatically revert to Level Mode and the **NAV CAPT** light will begin to flash. The autopilot will remain in this condition until the pilot takes appropriate action (such as selecting **HDG** mode) which clears the flashing **NAV CAPT** light.

6. The FMS and associated components are protected by the following circuit breakers:

C/B Name	Amps	Buss	Location
FMS 1	5	L ESS A 28VDC BUS	PILOT CB PANEL
FMS 1 REF	1	L 26VAC BUS	PILOT CB PANEL
FMS 2	5	R ESS A 28VDC BUS	COPILOT CB PANEL
FMS 2 REF	1	R 26VAC BUS	COPILOT CB PANEL
SSDTU	1	R 28VDC MAIN BUS	COPILOT CB PANEL

SECTION VI – PERFORMANCE DATA

No change to FAA Approved Airplane Flight Manual.

1. Approving National Aviation Authority/Country:

FAA/UNITED STATES

2.

AUTHORIZED RELEASE CERTIFICATE

FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

3. Form Tracking Number:

29019-3.2.3

4. Organization Name and Address:

WEST STAR

796 Heritage Way
Grand Junction, CO 81506
CRS: WTXR173J

5. Work Order/Contract/Invoice Number:

29019

6. Item:	7. Description:	8. Part Number:	9. Eligibility:*	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	Battery	RG-380E/44	N/A	1	40455637	TESTED

13. Remarks:

Top charged, performed capacity check. Battery passed capacity check at 100%. Recharged IAW Concorde CMM 24-30-71, DWG. NO. 5-0171, Rev M, Dated. Mar. 15/2012.

COPY

14. Certifies the items identified above were manufactured in conformity to:

- ☐ Approved design data and are in condition for safe operation.
- ☐ Non-approved design data specified in Block 13

19. ☒ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 13

Certifies that unless otherwise specified in block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No.:
		Mark Neverdahl	WTXR173J
17. Name (Typed or Printed):	18. Date:	22. Name (Typed or Printed):	23. Date (m/d/y):
		Mark Neverdahl	Apr 24, 2013

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness accepts parts/components/assemblies from the airworthiness authority of the country specified in Block1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

*Installer must cross-check eligibility with applicable technical data.

NSN: 0052-00-012-900

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/UNITED STATES	**AUTHORIZED RELEASE CERTIFICATE** FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	29019-3.2.2

4. Organization Name and Address:

WEST STAR AVIATION

796 Heritage Way
Grand Junction, CO 81506
CRS: WTXR173J

5. Work Order/Contract/Invoice Number:

29019

6. Item:	7. Description:	8. Part Number:	9. Eligibility:*	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	Battery	RG-380E/44	N/A	1	40455612	TESTED

13. Remarks:

Top charged, performed capacity check. Battery passed capacity check at 100%. Recharged IAW Concorde CMM 24-30-71, DWG. NO. 5-0171, Rev M, Dated, Mar. 15/2012.

14. Certifies the items identified above were manufactured in conformity to:

- ☐ Approved design data and are in condition for safe operation.
- ☐ Non-approved design data specified in Block 13.

19. ☒ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 13

Certifies that unless otherwise specified in block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No.:
		Mark Neverdahl	WTXR173J
17. Name (Typed or Printed):	18. Date:	22. Name (Typed or Printed):	23. Date (m/d/y):
		Mark Neverdahl	Apr 24, 2013

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness accepts parts/components/assemblies from the airworthiness authority of the country specified in Block1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

AUTHORIZED RELEASE CERTIFICATE

FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG

1. Approving National Aviation Authority/Country:		3. Form Tracking Number:
FAA/UNITED STATES		R10-07012
4. Organization Name and Address:	AMETEK B&S Aircraft Parts & Accessories 1414 South Mosley, Wichita, KS 67211-3398, USA, Certificate Number NE2R028L	5. Work Order/Contract/Invoice Number: R10-07012

6. Item:	7. Description:	8. Part Number:	9. Eligibility:*	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	BOOST PUMP	RR12670F 2380060-29	N/A	1	B-4094	OVERHAULED

13. Remarks:

Approval for Return to Service. Overhauled, reference Crane Lear Romec manual 28-16-05, Rev. 2, 1/12/1995. Ametek B&S Aircraft Parts & Accessories certifies that the work specified in Blocks 12 and 13 was carried out in accordance with EASA Part-145 and in respect to that work, the component is considered ready for release to service under EASA Part-145 Approval Number: EASA.145.4228. Full details held on work order R10-07012.

14. Certifies the items identified above were manufactured in conformity to:		19. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 13
☐ Approved design data and are in condition for safe operation ☐ Non-approved design data specified in Block 13		Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.
15. Authorized Signature:	16. Approval/Authorization Number:	20. Authorized Signature:
17. Name (Typed or Printed):	18. Date (m/d/y):	22. Name (Typed or Printed): Bryson L. Voth

20. Authorized Signature:	21. Approval/Certificate Number:
Bryson L. Voth	**NE2R028L**
22. Name (Typed or Printed): Bryson L. Voth	23. Date (m/d/y): Dec/10/2010

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly. Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1. Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

*Installer must cross-check eligibility with applicable technical data

AMETEK

AEROSPACE & DEFENSE

AMETEK B & S Aircraft Parts & Accessories

1414 SOUTH MOSLEY • WICHITA, KANSAS 67211-3387

316-264-2397 800-835-2961 fax 316-264-7898

FAA Certificate No. NE2R028L - Accessory Overhaul

COMPLETED

Work Order No. R[illegible]-07012

Customer Number	WES033
Ship Code	GRAN

WEST STAR AVIATION INC.

Issued.: 11/11/10
By.....: Bill Pitz
Request:

Invoice No:
Shipped...:
Sales Ord#:
Sales Amt.:

Received Via	Purchase Order Number	Itm	Packing Slip/Shipping Authorization No.	Itm	Customer's Part Number	Manufacturer's Part Number	Serial Number
UPS GROUND [X] Prepaid [ ] Collect	POG10-11225	2			2380060-29	RR12670F	B-4094

Description	Qty	Prod Code	Dep	Manufacturer	Mfg Date	Link#	Mod Status
BOOST PUMP	1	3181	2	~~Crane Lear~~ ESI/ROMEC		4583	

Discrepancy or Reason for Return

Work Performed

Overhauled, Reference Crane Lear Romec Manual 28-16-05, Rev. 2, 1-12-95.

Work Instructions

Overhaul & Certify [X] Functional Test Only [ ] Repair and Certify [ ] Accident Unit [ ]
Third Party Proc.. [ ] Merchandise Return.. [ ] Non-Certified Work [ ] Eval Only.... [ ]
Repair Cost Estimate Required? Yes [X] No [ ] OK RS Modify [ ] Warr Request? [ ]

Special Work Instructions Not Outlined Above

Market: Business Jet (A)

Preliminary Inspection Record

Nameplate Paint coming off.
Wire bundle shielding damaged.

Initials: DWC
Date: 11-19-10

Hidden Damage Inspection Record

Armature Checked OK on Hi-Pot & Growler,
Commutator Needs turned down.
Rot. Seal Needs Lapped.
End Bells Checked OK.

Initials: DWC
Date: 11-19-10

Functional Test Results

Volts (D.C.)	Flow (P.P.H.)	Pressure (PSIG.)	Current (Amps.)	External Leakage Test	Fluid Temp. (°F)
	0	22.00	5.00		
26	3,500	11.75	6.50	0	77
	3,300	13.00	6.25		
	3,100	14.00	6.25		

Ran 1/2 hr. No Leaks

Certified Airworthy By	Certificate Number	Date	Master Technician	Technician	Date
Bryan T Hess	2488689	12-10-10		[signature]	12-10-10

1100 11-07

46.24

UNIVERSAL AVIONICS SYSTEMS CORPORATION
3260 East Universal Way,
Tucson, Arizona 85756 USA
Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395
www.uasc.com

Packing Slip

Order Number: 009670 Ship Date: 04/12/2013 Customer Number: W01310

Packing Slip Number: 009670-001

Sold To:
WEST STAR AVIATION
790 HERITAGE WAY
GRAND JUNCTION, CO 815068643
USA

Ship To:
W01310
WEST STAR AVIATION
790 HERITAGE WAY
GRAND JUNCTION, CO 815068643
USA
Attn: WO 29019

Order Comments:

814-606

Customer PO Number: POG13-05399 Requested Shipper:

Customer PO Date: 4/11/2013 Written By: dknepper UPS NEXT DAY AIR COL Acct#: 814-606

Item #	PO LN #	DESCRIPTION		QTY	SHIP DATE	QTY B/O	SERIAL NUMBERS
001	3	CONFIG MODULE,UNS-1C	10171	2	4/15/2013	0	6320, 6321
		CONFIG MODULE,UNS-1C					
		VC: N					
002	4	SOLID STATE DTU, BLACK	1408-00-2	1	4/15/2013	0	2312
		SOLID STATE DTU, BLACK					
		** GNU GENERAL PUBLIC LICENSE FOR SSDTU FOR END CUSTOMER USE **					
		VC: N SCN: 10.1					
003	5	SOLID STATE DTU INSTALL KIT	K12079-1	1	4/15/2013	0	B130300341
		SOLID STATE DTU INSTALL KIT					
		VC: N					

These materials have been inspected and found to conform with the requirements of 14CFR §145.211 (c)(1)(i)
Receiving Inspector
West Star Aviation, Inc.
CRS WTXR173J
Date 04-15-13

Shipping Details						
NUMBER OF PACKAGES	TOTAL WEIGHT	WAYBILL / TRACKING NUMBER	SHIPPING CHARGES		PACKED BY:	ORDER TYPE
1	17 lb		N/A		tharrison	CS-NEW SALE CS

Export Content : (Where Applicable) - "These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited."

CERTIFICATE OF CONFORMANCE

Universal Avionics Systems Corporation hereby certifies that the items(s) or services listed hereon was produced and or preformed in accordance with regulatory and customer requirements as applicable. Data to support conformance to said requirements are maintained on file at Universal Avionics Systems Corporation.

UNIVERSAL AVIONICS
SYSTEMS CORPORATION

3260 East Universal Way,
Tucson, Arizona 85756 USA
Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395
www.uasc.com

Packing Slip

Order Number: 009670 **Ship Date:** 04/12/2013 **Customer Number:** W01310

Packing Slip Number: 009670-001

Sold To:

WEST STAR AVIATION
790 HERITAGE WAY
GRAND JUNCTION, CO 815068643
USA

Ship To:

W01310
WEST STAR AVIATION
790 HERITAGE WAY
GRAND JUNCTION, CO 815068643
USA
Attn: WO 29019

Item #	PO LN #	DESCRIPTION		QTY	SHIP DATE	QTY B/O	SERIAL NUMBERS
007	6	P3 CONNECTOR (AMPHENOL/BENDIX)	83002613	2	4/15/2013	0	
		P3 CONNECTOR (AMPHENOL/BENDIX) Cust Part No. MS27473T24F61SD					
		VC: N					
008	7	GPS ANT,5V,(AEROANTENNA)	10706	2	4/15/2013	0	16291, 16292
		GPS ANT,5V,(AEROANTENNA)					
		VC: N					
009		END CUSTOMER PKG, SCN 803/903	P12054	1	4/15/2013	0	
		END CUSTOMER PKG, SCN 803/903					
		VC: N					
010	6	BACKSHELL	83001992	2	4/15/2013	0	
		BACKSHELL Cust Part No. M85049/49-2S24N					
		VC: N					

Shipping Details

NUMBER OF PACKAGES	TOTAL WEIGHT	WAYBILL / TRACKING NUMBER	SHIPPING CHARGES		PACKED BY:	ORDER TYPE
1	17 lb		N/A		tharrison	CS-NEW SALE CS

Export Content : (Where Applicable) - "These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited."

CERTIFICATE OF CONFORMANCE

Universal Avionics Systems Corporation hereby certifies that the items(s) or services listed hereon was produced and or preformed in accordance with regulatory and customer requirements as applicable. Data to support conformance to said requirements are maintained on file at Universal Avionics Systems Corporation.

1. Approving National Aviation Authority/Country:	2.	3. System Tracking Ref. No.:
FAA / United States	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	12-31600

4. Organization Name and Address:	Work Order/Contract/Invoice Number:
AeroAntenna Technology, Inc. PT1484NM **20732 Lassen Street. Chatsworth, CA 91311. E mail: qa@aeroantenna.com**	**AAT PS # 56881**

6. Item	7. Description:	8. Part Number:	9. Eligibility: *	10. Quantity:	11. Serial / Batch Number:	12. Status/Work:
1	**Antenna**	**AT575-126UAW-TNCF-000-RG-30-NM** REF. Customer P/N: 10706	**N/A**	1	16291	**NEW**

13. Remarks:
AIRWORTHINESS APPROVAL- PARTS. TSO C144. FOR DOMESTIC SHIPMENT

14. Certifies the items identified above were manufactured in conformity to:	19. o 14 CFR 43.9 Return to Service o Other regulation specified in Block 13
√ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified In Block 13.	Certifies that unless otherwise specified in block 13, the work identified in block 12 and described in block 13 was accomplished in accordance with title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No:
B. Rubeni	DMIR605926NM		
17. Name (Typed or Printed):	**18. Date: (m/d/y)**	**22. Name (Typed or Printed):**	**23. Date: (m/d/y)**
BENJAMIN RUBENI	NOV 09, 2012		

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user / installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

* Installer must cross-check eligibility with applicable technical data.

1. Approving National Aviation Authority/Country:	2.	3. System Tracking Ref. No.:
FAA / United States	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	12-31601

4. Organization Name and Address:	Work Order/Contract/Invoice Number:
AeroAntenna Technology, Inc. PT1484NM **20732 Lassen Street. Chatsworth, CA 91311. E mail: qa@aeroantenna.com**	**AAT PS # 56881**

6. Item	7. Description:	8. Part Number:	9. Eligibility: *	10. Quantity:	11. Serial / Batch Number:	12. Status/Work:
1	**Antenna**	**AT575-126UAW-TNCF-000-RG-30-NM** REF. Customer P/N: 10706	**N/A**	**1**	16292	**NEW**

13. Remarks:
AIRWORTHINESS APPROVAL - PARTS. TSO C144. FOR DOMESTIC SHIPMENT

14. Certifies the items identified above were manufactured in conformity to:	19. o 14 CFR 43.9 Return to Service o Other regulation specified in Block 13
√ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 13.	Certifies that unless otherwise specified in block 13, the work identified in block 12 and described in block 13 was accomplished in accordance with title 14 Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No.:
B. Rubeni	DMIR605926NM		
17. Name (Typed or Printed):	**18. Date: (m/d/y)**	**22. Name (Typed or Printed):**	**23. Date: (m/d/y)**
BENJAMIN RUBENI	NOV 09, 2012		

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user / installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

Crystal Martinez

From: Crystal Martinez
Sent: Friday, April 12, 2013 12:51 PM
To: John Bauer; Craig Stout
Subject: Revision of SOF N22MS

Type	N#	MODEL-SN	DUEIN	DUEOUT	LEAD	WO	PART 135	REVISED	QAI	TRACKER NEEDED	DONE	RESEARCHER	WRKSCOPE	NOTES
J	22MS	35A-209	4/16/2013	5/3/2013	Scott	29019	0	4/12/2013	Craig	-1	0	Erin	AVIONICS INSTALL - Remove UNS-1Ms and install UNS-1Es	

Type	N#	MODEL-SN	DUEIN	DUEOUT	LEAD	WO	PART 135	REVISED	QAI	TRACKER NEEDED	DONE	RESEARCHER	WRKSCOPE	NOTES
J	22MS.	35A-209	4/16/2013	5/3/2013	Jason	29019	0	4/16/2013	John	-1	0	Erin	Due items, battery items	

Crystal Martinez
QA Inspector Admin Assistant
West Star Aviation - Grand Junction
970-243-7500 - Phone
(800) 255-4193 - Toll Free
http://www.weststaraviation.com

N22MQ

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/UNITED STATES	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	12R92356

4. Organization Name and Address:	Repair Station Number:	5. Work Order, Contract, or Invoice Number:
Universal Avionics Systems Corporation 3260 E. Universal Way Tucson, AZ 85756	UZNR483N	12R92356

6. Item:	7. Description:	8. Part Number:	9. Eligibility*	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	1E FMS	2017-42-211	N/A	1	1186	MODIFIED

13. Remarks:

RETURN TO SERVICE

Inspected, modified, tested, and returned to service in accordance with Universal Avionics maintenance manual 34-60-28_UNS-1E_UNS-1C+_FMS Rev IR Date 06/17/02.

Incorporated Service Bulletin(s): 1XXX.XX.( )-34-3392 Rev IR Date 05/18/10

SCN 803.2

A detailed description of work performed is documented within the work order identified in block 5 of this form.

Person who performed final acceptance testing for above described work NICK TREMBLAY. Date of completion: 05/03/13.

Acceptance testing was performed in accordance with above referenced maintenance manual.

Universal Avionics certifies that the work specified in block 12/13 was carried out in accordance with EASA Part-145 and in respect to that work the component is considered ready for release to service under EASA Part-145 Approval Number: EASA.145.5049.

14. Certifies the items identified above were manufactured in conformity to:	19. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 13		
☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 13.	Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		
15. Authorized Signature:	16. FAA Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No.: UZNR483N
17. Name (Typed or Printed):	18. Date (m/d/y):	22. Name (Typed or Printed): VINCENT PINEDO	23. Date (m/d/y): MAY/03/2013

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

N221MS

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/UNITED STATES	**AUTHORIZED RELEASE CERTIFICATE** **FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG**	13R95669

4. Organization Name and Address:	Repair Station Number:	5. Work Order, Contract, or Invoice Number:
Universal Avionics Systems Corporation 3260 E. Universal Way Tucson, AZ 85756	UZNR483N	13R95669

6. Item:	7. Description:	8. Part Number:	9. Eligibility*	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	1E FMS	2017-42-211	N/A	1	196	REPAIRED

13. Remarks:

RETURN TO SERVICE

Inspected, repaired, tested, and returned to service in accordance with Universal Avionics maintenance manual 34-60-28_UNS-1E_UNS-1C+_FMS Rev IR Date 06/17/02.

SCN 803.2

A detailed description of work performed is documented within the work order identified in block 5 of this form.

Person who performed final acceptance testing for above described work NICK TREMBLAY. Date of completion: 05/03/13.

Acceptance testing was performed in accordance with above referenced maintenance manual.

Universal Avionics certifies that the work specified in block 12/13 was carried out in accordance with EASA Part-145 and in respect to that work the component is considered ready for release to service under EASA Part-145 Approval Number: EASA.145.5049.

14. Certifies the items identified above were manufactured in conformity to:	19. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 13	
☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 13.	Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	
15. Authorized Signature:	16. FAA Authorization No.:	20. Authorized Signature:
17. Name (Typed or Printed):	18. Date (m/d/y):	22. Name (Typed or Printed): VINCENT PINEDO

21. Approval/Certificate No.: UZNR483N

23. Date (m/d/y): MAY/03/2013

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

3260 East Universal Way, Tucson, Arizona 85756 U.S.A.
Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395

WORKORDER
13R95669
Repair Station UZNR483N

Claim Date	: 03/14/2013	**Page**	: 1
Claim No	: 13495669	**Ack. No**	: 1352483
Div-Plant	: 02-20		
Received From	: D00040 DUNCAN AVIATION, INC.- LINCOLN	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-211	**Part Serial**	: 196
Part Descr	: 1E FMS, GPS, VID/GRA, ANALOG, GRAY	**Warranty No**	: 0140530
Reason	: CE WARRANTY EXCHANGE	**Expires**	: 03/01/2014
A/C Serial	:	**Customer PO**	: PN93HZ
Registration	:	**Type**	:
A/C Descr	:		

NOTE: THIS IS AN ELECTRONIC WORK ORDER. ALL NAMES AND STAMP NUMBERS YOU SEE ON THIS DOCUMENT WERE APPLIED ELECTRONICALLY, AND THEN ACKNOWLEDGED BY THE INDIVIDUALS REPRESENTED.

WORK ORDER SUMMARY

CUST REPORTED: GPS / GNSS DISCREPANCY
REPAIR ACTION: BOARD REMOVED AND REPLACED
CUST REPORTED: INTERMITTENT OPERATION
REPAIR ACTION: BOARD REMOVED AND REPLACED

OUTGOING CONFIGURATION

PART NO:	2017-42-211
SERIAL NO:	196
SCN	803.2
Display (CDU)	10.6
AUX	1.6
ANALOG	2.0
Bootstrap	10.0
ARINC	2.1
ASCB	n/a
GNSS	11.0
MODS.	1-12

WORK ORDER DETAIL

>CUST REPORTED GPS / GNSS DISCREPANCY
>CUST REPORTED INTERMITTENT OPERATION< INTERMITTENT GPS FAILURE.

SESS	EMPLOYEE NAME / WORK PERFORMED	DATE	HOURS

INCOMING CONFIGURATION

SCN	803.2
Display (CDU)	10.6
AUX	1.6
ANALOG	2.0
Bootstrap	10.0
ARINC	2.1
ASCB	n/a
GNSS	11.0
MODS.	1-12

001	LEON ESTHER	04/02/2013	0.10

INC INSP AT 1502 BADLY SCRATCHED UNIT ALL OVER. CONSISTENT WITH INST/REM. LIGHTLY DIRTY UNIT. SLIGHTLY

CONTINUED ON NEXT PAGE

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

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Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395

WORKORDER
13R95669
Repair Station UZNR483N

Claim Date	: 03/14/2013	**Page**	: 2
Claim No	: 13495669	**Ack. No**	: 1352483
Div-Plant	: 02-20		
Received From	: D00040 DUNCAN AVIATION, INC.- LINCOLN	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-211	**Part Serial**	: 196
Part Descr	: 1E FMS, GPS, VID/GRA, ANALOG, GRAY	**Warranty No**	: 0140530
Reason	: CE WARRANTY EXCHANGE	**Expires**	: 03/01/2014
A/C Serial	:	**Customer PO**	: PN93HZ
Registration	:	**Type**	:
A/C Descr	:		

CHIPPED PAINT ON FACEPLATE. EXTREMELY DIRTY LENS. MARKER WRITING ON TOP OF UNIT. SLIGHTLY DIRTY LENS.
APPLIANCE RCVD WITH QUALITY SEALS INTACT.

002 TREMBLAY NICK 05/01/2013 0.10
SQUAWK VERIFIED
GNSS FAIL-REPLACE GNSS BOARD TO REPAIR

003 TREMBLAY NICK 05/01/2013 0.10
REPLACED GNSS BOARD TO REPAIR GPS ISSUES
EXCHANGE UNIT-CHANGE FACEPLATE TO BLACK
CHECKED BATTERIES-(CPU-3.64V / GNSS 3.112V)
ALREADY HAS 803.2 SCN
CLEARED RAM
LOADED CURRENT DATABASES (30-MAY-2013)
INSPECTED UNIT, NO OTHER DEFECTS FOUND.
ALL BOARDS ARE TO CURRENT REVS.
REMOVED PART: GNSS BOARD
02116075D S/N: A030100171 W/O # 13R95669-001
CAUSES FAIL
INSTALLED PART: GNSS BOARD
02116075F S/N: A060200706 W/O # 13R96378-004
REMOVED PART: FRONT PANEL
01017077-02 S/N: 7017-LSI W/O # 13R95669-002
REMOVED TO RECONFIG
INSTALLED PART: FRONT PANEL
01017077-04 S/N: 1313-LSI W/O # 10R72933-003

004 TREMBLAY NICK 05/01/2013 0.10
CONVERTED UNIT TO: 2017-42-211

005 TREMBLAY NICK 05/01/2013 2.00
IN ADDITION TO THE WORK DESCRIBED ABOVE, THE FOLLOWING CONSUMABLES WERE INCLUDED:
- ANTIVIBRATION MATERIAL
- FACEPLATE GASKET
VERIFIED UNIT CIRCUIT BOARD CONFIGURATION.
THIS APPLIANCE WAS REPAIRED IN ACCORDANCE WITH UNIVERSAL AVIONICS MAINTENANCE MANUAL 34-60-28_UNS-1E_UNS-1C+_FMS.
ANY OTHER MAINTENANCE ACTIONS THAT WERE NECESSARY ARE DETAILED IN THIS WORK ORDER.

PASSED FINAL ACCEPTANCE TESTING IN ACCORDANCE WITH ABOVE REFERENCED MAINTENANCE MANUAL.

NAV DATABASE EXP DATE: 05/30/13 REGION: WORLDWIDE 2000'

006 VALENTINE JOHN 05/02/2013 0.10
CERTIFIED REPAIRMAN SUPERVISOR MAINTENANCE.

007 PINEDO VINCENT 05/03/2013 0.10
POST-MAINTENANCE INSPECTION PERFORMED.
APPLIANCE PASSED INSP IAW INSPECTION PROCEDURES REPORT # 20430.
INSPECTION COMPLETED AT 1053.

CONTINUED ON NEXT PAGE

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

3260 East Universal Way, Tucson, Arizona 85756 U.S.A.
Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395

WORKORDER
13R95669
Repair Station UZNR483N

Claim Date	: 03/14/2013	**Page**	: 3
Claim No	: 13495669	**Ack. No**	: 1352483
Div-Plant	: 02-20		
Received From	: D00040 DUNCAN AVIATION, INC.- LINCOLN	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-211	**Part Serial**	: 196
Part Descr	: 1E FMS, GPS, VID/GRA, ANALOG, GRAY	**Warranty No**	: 0140530
Reason	: CE WARRANTY EXCHANGE	**Expires**	: 03/01/2014
A/C Serial	:	**Customer PO**	: PN93HZ
Registration	:	**Type**	:
A/C Descr	:		

008 PINEDO VINCENT 05/03/2013 0.10
FINAL INSPECTION PERFORMED.
APPLIANCE PASSED INSP IAW INSPECTION PROCEDURES REPORT # 20430.
THIS ARTICLE IS AIRWORTHY WITH RESPECT TO THE WORK
PERFORMED.

Tech TREMBLAY NICK TECH STAMP# 65 Date 05/03/2013

Cert Rpmn Supv Maint VALENTINE JOHN CERT RPMN #3535480 Date 05/03/2013

Post Maint Insp PINEDO VINCENT INSP STAMP# 46 Date 05/03/2013

Cert Rpmn Perf Final Insp PINEDO VINCENT CERT RPMN #3564481 Date 05/03/2013
The name identified above is the inspector attesting to the proper final acceptance condition and airworthines of this product IAW inspection procedure report # 20430. The above electronic signature can be verifed by examining the 8130-3 associated with this work order.

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

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Fax: (520) 295-2395

WORKORDER
12R92356
Repair Station UZNR483N

Claim Date	: 11/07/2012	**Page**	: 1
Claim No	: 12492356	**Ack. No**	: 1259865
Div-Plant	: 02-20		
Received From	: T03260 TEKNON LLC	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-201	**Part Serial**	: 1186
Part Descr	: 1E FMS, GPS, VID/GRA, ALL DIGITAL,GRAY	**Warranty No**	:
Reason	: CE WARRANTY EXCHANGE	**Expires**	:
A/C Serial	:	**Customer PO**	: N395BC
Registration	:	**Type**	:
A/C Descr	:		

NOTE: THIS IS AN ELECTRONIC WORK ORDER. ALL NAMES AND STAMP NUMBERS YOU SEE ON THIS DOCUMENT WERE APPLIED ELECTRONICALLY, AND THEN ACKNOWLEDGED BY THE INDIVIDUALS REPRESENTED.

WORK ORDER SUMMARY

CUST REPORTED: DISPLAY DISCREPANCY
REPAIR ACTION: BENCH CHECKED (LOANERS EXCHANGES ETC)

OUTGOING CONFIGURATION

PART NO:	2017-42-211
SERIAL NO:	1186
SCN	803.2
Display (CDU)	10.5
AUX	1.6
ANALOG	2.0
Bootstrap	10.0
ARINC	2.1
ASCB	N/A
GNSS	11.0
MODS.	1-7,9,11,12

WORK ORDER DETAIL

>CUST REPORTED DISPLAY DISCREPANCY<DISPLAY IS BAD.
REFERENCE W/O 12R84594 AND 12R91086.

SESS	EMPLOYEE NAME / WORK PERFORMED	DATE	HOURS

INCOMING CONFIGURATION

SCN	802.8
Display (CDU)	10.5
AUX	1.6
ANALOG	N/A
Bootstrap	10.0
ARINC	2.1
ASCB	N/A
GNSS	11.0
MODS.	1-7,9,11,12

001 LEON ESTHER 12/13/2012 0.10
INC INSP AT 1451. BADLY SCRATCHED UNIT ALL OVER. CONSISTENT WITH INST/REM. LIGHTLY DIRTY UNIT. SLIGHTLY DIRTY LENS/FACEPLATE. MINUTE CHIPPING OF PAINT ON FACEPLATE. BLK MARKER WRITING ON RT SIDE OF UNIT. TAPE RESIDUE ON TOP/RT SIDE OF UNIT.

CONTINUED ON NEXT PAGE

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

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Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395

WORKORDER
12R92356
Repair Station UZNR483N

Claim Date	: 11/07/2012	**Page**	: 2
Claim No	: 12492356	**Ack. No**	: 1259865
Div-Plant	: 02-20		
Received From	: T03260 TEKNON LLC	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-201	**Part Serial**	: 1186
Part Descr	: 1E FMS, GPS, VID/GRA, ALL DIGITAL,GRAY	**Warranty No**	:
Reason	: CE WARRANTY EXCHANGE	**Expires**	:
A/C Serial	:	**Customer PO**	: N395BC
Registration	:	**Type**	:
A/C Descr	:		

APPLIANCE RCVD WITH QUALITY SEALS INTACT.

002 BUTLER MICHAEL 04/30/2013 0.10
REMOVED PART: SUB-ASSY, GPS/GLONASS BD W/MOD SCN 10.1
00211675-02 S/N: a060301399 W/O # 12R92356-001
REMOVED TO RECONFIG

003 TREMBLAY NICK 05/01/2013 0.10
SQUAWK NOT VERIFIED
COULD NOT DUPLICATE-DISPLAY IS FULLY OPERATIONAL.

004 TREMBLAY NICK 05/01/2013 0.10
EXCHANGE-CHANGE FACEPLATE TO BLACK-ADD ANALOG BOARD.
CHECKED BATTERIES-(CPU-3.73V / GNSS-3.162V)
LOADED SCN 803.2
CLEARED RAM
LOADED CURRENT DATABASES (30-MAY-2013)
INSPECTED UNIT, "M2.1Q" SHOWN AS ARINC SCN
INSTEAD OF 2.1: REPLACED ARINC BOARD TO REPAIR.
ALL BOARDS ARE TO CURRENT REVS.

INCORPORATED SERVICE BULLETIN(S):
1XXX.XX.( )-34-3392

INSTALLED PART: ANALOG BOARD
01017040E S/N: 94085-036 W/O # 12R91034-002
INSTALLED PART: GNSS BOARD
02116075D S/N: A021100109 W/O # 11R83069-004
INSTALLED PART: GPS MODULE W/HOLES GG12 BOARD
01070914-03 S/N: GT3200345055 W/O # 12R88400-001
REMOVED PART: FRONT PANEL
01017077-02 S/N: 5309-LSI W/O # 12R92356-004
REMOVED TO RECONFIG
INSTALLED PART: FRONT PANEL
01017077-04 S/N: 2252-LSI W/O # 13P00330-000
REMOVED PART: ANALOG BOARD
01017040e S/N: 94085-036 W/O # 12R91034-002
AC PITCH FAIL
INSTALLED PART: ANALOG BOARD
01017040G S/N: A061000317 W/O # 13R95745-001
REMOVED PART: ARINC BOARD
01017030D S/N: A020500747 W/O # 12R92356-005
SOFTWARE SHOWS 'M2.1Q'
INSTALLED PART: ARINC BOARD
01017030D S/N: A010900610 W/O # 13R95234-004

005 TREMBLAY NICK 05/02/2013 0.10
CONVERTED UNIT TO: 2017-42-211

006 TREMBLAY NICK 05/02/2013 2.00
IN ADDITION TO THE WORK DESCRIBED ABOVE, THE FOLLOWING

CONTINUED ON NEXT PAGE

UNIVERSAL AVIONICS SYSTEMS CORPORATION *Arizona Division*

3260 East Universal Way, Tucson, Arizona 85756 U.S.A.
Tel: (520) 295-2300 (800) 321-5253
Fax: (520) 295-2395

WORKORDER
12R92356
Repair Station UZNR483N

Claim Date	: 11/07/2012	**Page**	: 3
Claim No	: 12492356	**Ack. No**	: 1259865
Div-Plant	: 02-20		
Received From	: T03260 TEKNON LLC	**Phone**	:
Ship To	: N/A: UASC PROPERTY, SHIP TO UNKNOWN	**Phone**	:
Part No	: 2017-41-201	**Part Serial**	: 1186
Part Descr	: 1E FMS, GPS, VID/GRA, ALL DIGITAL,GRAY	**Warranty No**	:
Reason	: CE WARRANTY EXCHANGE	**Expires**	:
A/C Serial	:	**Customer PO**	: N395BC
Registration	:	**Type**	:
A/C Descr	:		

CONSUMABLES WERE INCLUDED:
- ANTIVIBRATION MATERIAL
- FACEPLATE GASKET
THIS APPLIANCE WAS MODIFIED IN ACCORDANCE WITH UNIVERSAL AVIONICS MAINTENANCE MANUAL 34-60-28_UNS-1E_UNS-1C+_FMS. ANY OTHER MAINTENANCE ACTIONS THAT WERE NECESSARY ARE DETAILED IN THIS WORK ORDER.

PASSED FINAL ACCEPTANCE TESTING IN ACCORDANCE WITH ABOVE REFERENCED MAINTENANCE MANUAL.

NAV DATABASE EXP DATE: 05/30/13 REGION: WORLDWIDE 2000'

007	VALENTINE JOHN CERTIFIED REPAIRMAN SUPERVISOR MAINTENANCE.		05/02/2013	0.10
008	PINEDO VINCENT POST-MAINTENANCE INSPECTION PERFORMED. APPLIANCE PASSED INSP IAW INSPECTION PROCEDURES REPORT # 20430. INSPECTION COMPLETED AT 1604.		05/03/2013	0.10
009	PINEDO VINCENT FINAL INSPECTION PERFORMED. APPLIANCE PASSED INSP IAW INSPECTION PROCEDURES REPORT # 20430. THIS ARTICLE IS AIRWORTHY WITH RESPECT TO THE WORK PERFORMED.		05/03/2013	0.10

Tech	TREMBLAY	NICK	TECH STAMP# 65	Date	05/03/2013
Cert Rpmn Supv Maint	VALENTINE	JOHN	CERT RPMN #3535480	Date	05/03/2013
Post Maint Insp	PINEDO	VINCENT	INSP STAMP# 46	Date	05/03/2013
Cert Rpmn Perf Final Insp	PINEDO	VINCENT	CERT RPMN #3564481	Date	05/03/2013

The name identified above is the inspector attesting to the proper final acceptance condition and airworthines of this product IAW inspection procedure report # 20430. The above electronic signature can be verifed by examining the 8130-3 associated with this work order.

Revised 06/08

Registration: P N22MS

Make: P LEARJET

Model: P L-35A

Serial #: P 209

Work Order #: P 29019

Squawk #: P

WEST STAR AVIATION

Repair or Modification Approval

Reference Data: P "PROJET 802"

Submitted by: (PRINT NAME HERE) P DOUG HOOGEVEEN

	Initial	Date
QA Approval	QA CS	2/23/18
Engineering Approval	E	

This Repair/Alteration is: QA ☐ Major ☒ Minor

Method of Approval: ☐ 337 with STC ☐ Field Approved 337 ☒ 337 with 8110-3 ☐ Non-Field Approved 337 QA/E ☐ Major Repair RTS in WO

Sketch / describe the repair or modification below: P

INSTALLING DUAL UNIVERSAL UNS-1E'S FMS UPGRADE

802 - 1408-00-2 SSDTU MOUNTED TO THE AFT END OF THE PEDESTAL, BY FABRICATING A CLOSEOUT TO HOUSE THE SSDTU.

REMOVE THE EXISTING FLIGHT FONE SYSTEM

- REMOVE EXISTING FLIGHT FONE ANTENNA FROM THE BELLY AND PATCH WITH A 2024-T3 .125" BLANK PLATE TO MATCH THE ANTENNA FOOT PRINT

Craig Stout

From: Crystal Martinez
Sent: Friday, April 12, 2013 8:58 AM
To: Craig Stout
Subject: Revision of SOF N22MS

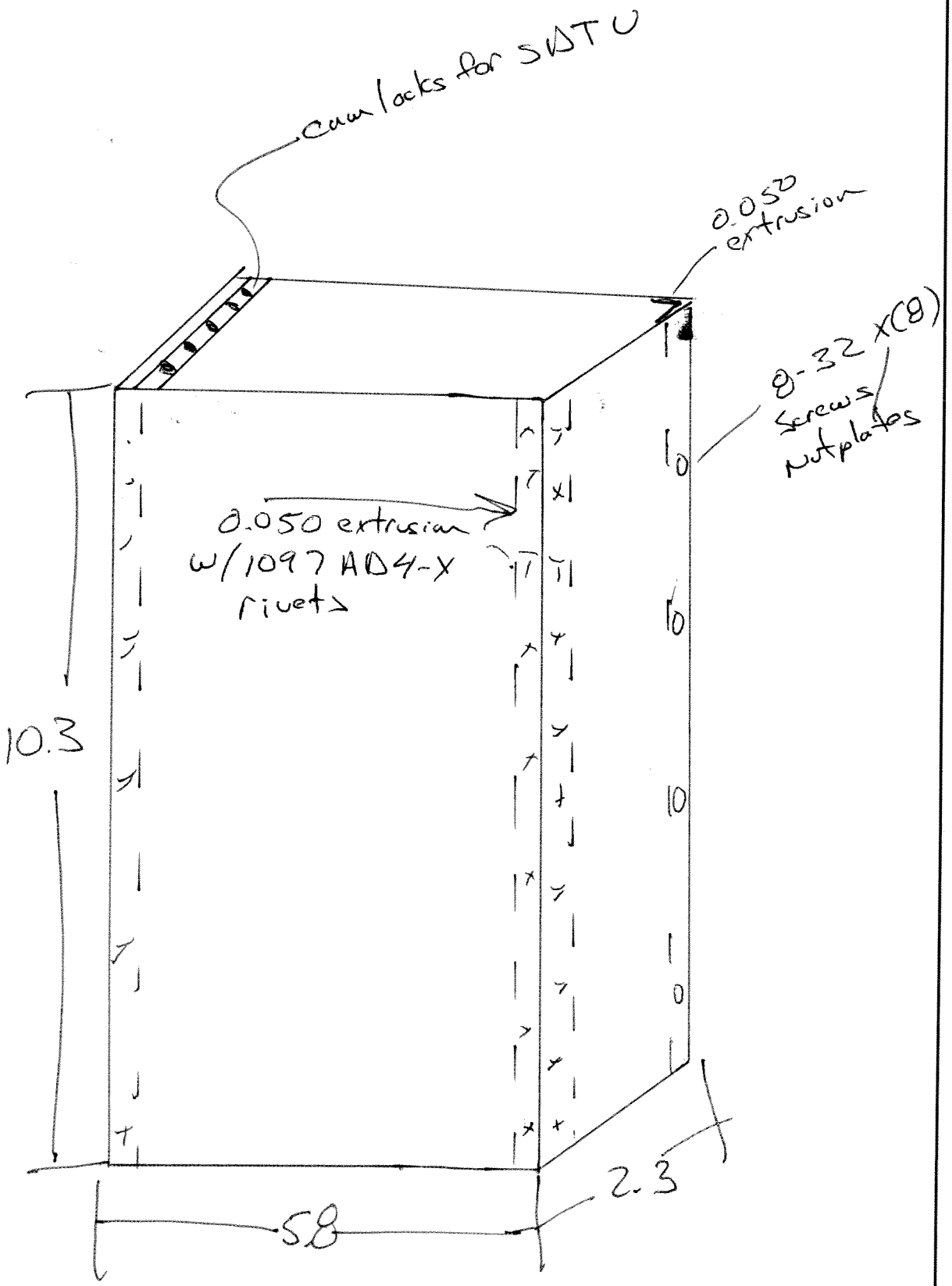
Type	N#	MODEL-SN	DUEIN	DUEOUT	LEAD	WO	PART 135	REVISED	QAI	TRACKER NEEDED	DONE	RESEARCHER	
J	22MS	35A-209	4/16/2013	5/3/2013	Scott	29019	0	4/12/2013	Craig	-1	0	Erin	AVION 1Ms ar

Crystal Martinez
QA Inspector Admin Assistant
West Star Aviation - Grand Junction
970-243-7500 - Phone
(800) 255-4193 - Toll Free
http://www.weststaraviation.com

Revised 06/08	WEST STAR AVIATION Repair or Modification Approval	**Submitted by:** (PRINT NAME HERE) P Don Johnson	
Registration: P N22MS			
Make: Learjet P	**Reference Data:** AC-43		Initial / Date
Model: 35A P		**QA Approval**	QA
Serial #: 209 P		**Engineering Approval**	E
Work Order #: 29019 P		**This Repair/Alteration is:** ☐ *Major* ☒ *Minor*	
Squawk #: P 2.1.1	P	**Method of Approval:** ☐ 337 with STC ☐ Field Approved 337 ☐ 337 with 8110-3 ☒ Non-Field Approved 337 ☐ Major Repair RTS in WO	QA/E
Sketch / describe the repair or modification below: P			

Formed a cover for the SDTU which allowed it to be mounted to the Aft section of the existing pedestal.

Cover was formed using 0.063 2024 Alclad sheet & 0.050 2024 Alclad 0.75 extrusion. Cover attaches to the pedestal using 8 8-32 nutplates & screws. All fastners were installed IAW AC-43. All parts were chemically treated & primer painted.


cam locks for SWTU
0.050 extrusion
8-32 x(8) screws nutplates
0.050 extrusion w/1097 AD4-X rivets
10.3
5.8
2.3

1. Approving National Aviation Authority/Country:	2. AUTHORIZED RELEASE CERTIFICATE FAA Form 8130-3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number:
FAA/UNITED STATES		WRK0175819

4. Organization Name and Address:	5. Work Order/Contract/Invoice Number:
MID-CONTINENT INSTRUMENT CO., INC 9400 E 34th ST. NORTH WICHITA, KS 67226-2615 FAA CRS OL2R061L	WRK0175819

6. Item:	7. Description:	8. Part Number:	9. Eligibility:	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:
1	ALTIMETER	16650-1150	N/A	1	171575	OVERHAULED

13. Remarks:

THE WORK ORDER REFERENCED DESCRIBES THE ACTUAL WORK PERFORMED.

ALL WORK WAS PERFORMED REF. MANUAL # ATP 1168-1 IFCA B 5/13/04

The work specified in block 12/13 except as otherwise specified was carried out in accordance with EASA Part 145 and in respect to that work the aircraft component is considered ready for release to service under EASA Approval Certificate Number EASA.145.4675.

14. Certifies the items identified above were manufactured in conformity to:

- ☐ Approved design data and are in condition for safe operation.
- ☐ Non-approved design data specified in Block 13.

19. ☒ **14 CFR 43.9 Return to Service** ☒ **Other regulation specified in Block 13**

Certifies that unless otherwise specified in block 13, the work identified in Block 12 and described in Block 13 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature	21. Approval/Certificate No.:
			FAA CRS OL2R061L
17. Name (Typed or Printed):	**18. Date (m/d/y):**	**22. Name (Typed or Printed):**	**23. Date (m/d/y):**
		NICHOLAS HOWE	Mar/24/2011

User/Installer Responsibilities

It is important to understand that the existance of this document alone doesnot automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that theuser/installer ensures that his/her airworthiness acceptsparts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by theinstaller/user before the aircraft may be flown.

Mid-Continent Instrument Co.
9400 E. 34th Street North
Wichita, KS 67226 1-800-821-1212
F.A.A. Certified Repair Station No. OL2 R061L

FAR PART 43 APPENDIX-E
COMPLIANCE REPORT

Ref. Test Points (Feet)	TSO C10b		FRICTION			CHG. PT. OF ENCODER Tol. 125 ' WITH REF. TO ALTIMETER IND.
	Tol. ± (Feet)	Friction Tol. (Feet)	ALTMTR. READING NO VIB.	FINAL READING W / VIB.	± TOL. (Feet)	
-1,000	20	70	-1,015	-1,015	0	
0	20	70	-15	-15	0	
500	20	70	490	490	0	
1,000	20	70	980	980	0	
1,500	25	70	1,495	1,500	5	
2,000	30	70	2,000	2,000	0	
3,000	30	70	2,995	2,995	0	
4,000	35	70	3,990	3,990	0	
5,000	35	70	5,000	5,000	0	
6,000	40	70	6,000	6,000	0	
8,000	60	70	8,015	8,015	0	
10,000	80	80	9,995	9,995	0	
12,000	90	80	12,000	12,000	0	
14,000	100	80	13,980	13,980	0	
15,000	100	80	14,970	14,970	0	
16,000	110	90	15,985	15,985	0	
18,000	120	90	17,960	17,960	0	
20,000	130	100	19,960	19,960	0	
22,000	140	100	21,970	21,970	0	
25,000	155	120	24,940	24,940	0	
30,000	180	140	29,940	29,945	5	
35,000	205	160	34,900	34,930	30	
40,000	230	180	39,930	39,930	0	
45,000	255	180	45,100	45,100	0	
50,000	280	250	49,960	49,965	5	
51,000			50,895	50,900		

Test type: Standard Altimeter Tested Through: 51,000 '

W.O. Number: 175819

Part Number: 16650-1150

Serial Number: 171575

1. VISUAL EXAMINATION: Good
2. POSITION ERROR (Tol. ± 20 '): 10
3. CASE LEAK (Tol. ± 100 ' / min.): 30
4. HYSTERESIS (Tol. ± 75 '):

	ALTIMETER READS	
	UP	DOWN
40% – 20,000 '	19,960 '	19,980 '
50% – 25,000 '	24,940 '	24,970 '

5. AFTER EFFECT (Tol. ± 30 '): 5
6. BAROMETRIC SCALE ERROR (Tol. ± 25 ')

MB	IN HG	FEET	RANGE	READINGS
951.6	28.10	-1,727	(-1,702 / -1,752)	-1,730
965.1	28.50	-1,340	(-1,315 / -1,365)	-1,330
982.0	29.00	-863	(-838 / -888)	-870
999.0	29.50	-392	(-367 / -417)	-400
1013.2	29.92	0	(-25 / +25)	-
1032.8	30.50	+531	(+506 / +556)	520
1046.4	30.90	+893	(+868 / +918)	880
1049.4	30.99	+974	(+949 / +999)	970

7. Lighting: Yes
8. Alerter Output: No
9. Check for Master Altimeter: No
   9a. Calibrated: No

TECHNICIAN: Khonsavanh Samountry 726 DATE: 03/23/11
KEY SAMOUNTRY #726

SHOP INSPECTOR: Diep Tran DATE: 03/23/11
DIEP TRAN #767

FINAL INSPECTION – CERTIFIED REPAIRMAN
INSPECTOR: [signature] DATE: 3-24-11

REV. 04/05/03

MID-CONTINENT INSTRUMENTS CO., INC.
9400 E 34TH ST. NORTH
WICHITA, KS 67226-2615
FAA CRS OL2R061L

WRK0175819

March 2, 2011

Final Work Order

Nomenclature	Serial No	Location	RMA #	AR #
ALTIMETER	171575	KS	RMA000000199805	6200
Manufacturer's Part No.	Model No.		Quantity	
16650-1150			1	
Manufacturer	Customer Item Number		Service Period	
AEROSONIC				
Customer	Customer PO No.		Customer Reference No.	
Duncan Aviation	853789			

Reason For Removal

1 of 2 units
Vibrator is inop and both sector shafts have broken parts. Eval and fax quote.

Work Instructions

Warranty Repair_____ Overhaul__X__ Return As Is_____

Functional Test_____Repair_____ Modified _____

Special Instructions

Preliminary Inspection

Seals Broken Yes Cover Damaged No Hidden Damage Inspection Required No

Nameplate Damaged No Finding LOOSE PARTS INSIDE.

Preliminary Inspector NEHAL SYED Date March 2, 2011

Failure Analysis

Customer Complaint Verified

VIBRATOR DOESN'T WORK. PIVOTS ARE BROKEN INSIDE. UNABLE TO DO CALIBRATION TEST.

Previous Service Bulletins Installed: N/A

Work Accomplished

DISASSEMBLED, CLEANED, INSPECTED, REPAIRED AS NECESSARY USING PARTS LISTED, REASSEMBLED AND FUNCTIONAL TESTED TO MFG SPEC. UNIT IS OVERHAULED CERTIFIED TO FAR PARTS 91.411 & 43, APPENDIX E.

I.A.W Manual # ATP 1168-1 IFCA B 5/13/04

Outgoing Service Bulletins N/A

Technician KEY SAMOUNTRY Date March 21, 2011

In-Process Inspector ROBERT HIGHLAND Date March 21, 2011

FINAL INSPECTOR NICHOLAS HOWE Date March 24, 2011

Parts Used

Part Number	Part Description	Quantity
1191-1	PIN, BEARING	1
205257-1	SPACER	1
205389-2	BACK PLATE	1
206342	SPACER	1
207514-1	VIBRATOR ASSY	1
AS568A-006	O RING, SILICON	1
1191-1	PIN, BEARING	1

MID-CONTINENT INSTRUMENTS

Altimeter Scale
Correction Card

Altimeter S/N 171575
Part No. 16650-1150

REFERENCE ALTITUDE IN FT.	ALTIMETER READS	REFERENCE ALTITUDE IN FT.	ALTIMETER READS
-1000	-1015	15000	14970
0	-15	16000	15985
500	490	18000	17960
1000	980	20000	19960
1500	1500	22000	21970
2000	2000	25000	24940
3000	2995	30000	29945
4000	3990	35000	34930
5000	5000	40000	39930
6000	6000	45000	45100
8000	8015	50000	49965
10000	9995	~~55000~~	-
12000	12000	51000	50900
14000	13980		

Tested By: DT #767 Inspector: [signature] Date: 3-24-11

MID-CONTINENT INSTRUMENT CO. INC.
9400 E. 34th St. North
Wichita, KS 67226 USA
Tel 800-821-1212 • 316-630-0101
FAA Repair Station # OL2R061L

MID-CONTINENT INSTRUMENTS WEST
16320 Stagg Street
Van Nuys, CA 91406 USA
Tel 800-345-7599 • 818-786-0300
FAA Repair Station # OL2D061L

N22MS
Lear 35A
S/N: 209
TTAF: 15045.1
LANDINGS: 9490

WO #: 29019

DATE: 05-08-13

AIRFRAME ENTRY

Accomplished the following Learjet special inspections in accordance with the Lear MM-99 Rev A2

IRN	SUBJECT
G1222002	Per Manufactures Instructions #1 & #2 battery capacity check Reinstalled Tested #1 battery P/N RG-380E-44 S/N: 40455612 Battery passed capacity check at 100%. #2 PN RG-380E/44 S/N 40455637 Battery passed capacity check at 100%
D1223000	3 Month/100 Hour Inspection of #1 and #2 Ni-Cad Emergency Power Supply Battery

Accomplished the following maintenance in accordance with the above referenced manual or other acceptable documentation

- Installed overhauled R/H standby pump P/N: RR12670F/ 2380060-29, S/N: B-4094, functional test satisfactory removed P/N RR12670F/ 2380060-29, S/N: B-7161

All maintenance performed on this aircraft was performed in accordance with current regulations of the FAA and was determined to be in an airworthy condition and is approved for return to service with respect to the work performed. Pertinent details are on file at this repair station under the above work order.

Signature _____

WEST STAR AVIATION, INC.
796 Heritage Way
Grand Junction, CO 81506 (970) 243-7500

FAA CERTIFIED REPAIR STATION
WTXR173J

N22MS
Lear 35A
S/N: 209
TTAF: 15045.1
LANDINGS: 9490

WEST STAR

WO #: 29019

DATE: 05-08-13

STATIC SYSTEM, ALTIMETER, ALTITUDE REPORTING AND TRANSPONDER

Installed a new Standby Altimeter P/N 11650-1150, S/N 171575, Tested vibrator, checks good. Removed P/N 11650-1150, S/N 171152.

The tests and Inspections required by CFR 91 411 and CFR 91 413 have been performed and found to comply with Part 43, Appendices E and F.

Complied with RVSM Air Data Accuracy Test
Certified the #1 and #2 pitot/static systems IAW Learjet RVSM ICA AMI-STC-LJ3536 and 14 CFR, part 43, appendix E para (b) to an altitude of 45,000 feet

No.1 ADDU P/N: 9d-80130-1	S/N: 10519
No.2 ADDU P/N: 9d-80130-1	S/N: 41867
Standby Altimeter P/N: 16650-1150	S/N: 17575

Certified the #1 and #2 automatic altitude reporting systems IAW 14 CFR part 43, appendix F para (a thru d).

No.1 Mode S Transponder P/N: 622-1270-00	S/N: 1116
No.2 Mode S Transponder P/N: 622-1270-00	S/N: 12937

Complied with RVSM Critical Region Inspection
Checked Pitot/Static probe alignment IAW Learjet RVSM ICA AMI-STC-LJ3536.

The above certifications meet the requirements of 14 CFR 91.411 and 91.413 and for flight into RVSM airspace.
Flight test required for altitude hold

Accomplished a 30 day VOR check: Verified VOR operation and bearing error is within spec. as per FAR 91.171.

I certify that this aircraft has been inspected as required by 14CFR §91.409 (f) (3), and has been determined to be in an airworthy condition and is approved for return to service with regards to the work performed. Pertinent details are on file at this repair station under the above work order. A copy of this work order has been provided to the operator.

Signature _____

WEST STAR AVIATION, INC.
796 Heritage Way
Grand Junction, CO 81506 (970) 243-7500

FAA CERTIFIED REPAIR STATION
WTXR173J

WEST STAR AVIATION

N22MS
MAKE/MODEL: LearJet 35A
S/N: 35A-209
TTAF: 15,045.1
LANDINGS: 9490
HOBBS:

WO #: 29019

DATE: 05/08/2013

AVIONICS ENTRY, PG. 1

Installation of a Dual Universal Avionics Systems UNS-1E Flight Management System (FMS) IAW West Star Aviation Drawing No. 6875312-001, Rev IR, dated APR/11/2013 and Approved by FAA Form 8110-3, dated May/08/2013

This installation consists of the following components:

- Universal Avionics UNS-1E FMS (2ea) P/N 2017-42-211 S/N 196 & 1186
- Solid State Data Transfer Unit – SSDTU – P/N 1408-00-2 S/N 2312
- GPS Antenna (2ea) P/N 10706 S/N 16291 & 16292
- Configuration Module (2ea) P/N 10171 S/N 6320 & 6321

Reference West Star Aviation Amendment to the Equipment List and Weight and Balance Form dated MAY/08/2013 for details regarding installed or removed equipment due to this alteration.

An FAA Approved Airplane Flight Manual Supplement Document No. 6855312-001, Rev IR, dated May/01/2013, has been provided to the customer. DERT500112CE

All maintenance performed on this aircraft was performed in accordance with current regulations of the FAA and was determined to be in an airworthy condition and is approved for return to service with respect to the work performed. Pertinent details are on file at this repair station under the above work order

Signature _____

WEST STAR AVIATION, INC
796 Heritage Way
Grand Junction, CO 81506 (970) 243-7500

FAA CERTIFIED REPAIR STATION
WTXR173J

WEST STAR AVIATION

ALTIMETER/AIR DATA SYSTEM TEST AND INSPECTION WORK SHEET

REF: CFR 91.411

ALTI-TUDE	PRESS HQ	TOLER-ANCE FT.	L/H ALT. ERR. (+/-) FT.	R/H ALT. ERR. (+/-) FT.
-1000	31.018	20	-1000	-1000
0	29.921	20	0	0
500	29.385	20	500	500
1000	28.856	20	1000	1000
1500	28.335	25	1500	1500
2000	27.821	30	2000	2000
3000	26.817	30	3000	3000
4000	25.842	35	4000	4000
6000	23.978	40	6000	6000
8000	22.225	60	8000	8000
10000	20.577	80	10000	10000
12000	19.029	90	12000	12000
14000	17.577	100	14000	14000
16000	16.216	110	16000	16000
18000	14.942	120	18000	18000
20000	13.750	130	20000	20000
22000	12.636	140	22000	22000
25000	11.104	155	25000	25000
30000	8.885	180	30000	30000
35000	7.041	205	35000	35000
40000	5.538	230	40000	40000
45000	4.355	255	44995	44985
50000	3.425	280		
51000	3.264	285		

HYSTERESIS				
HYSTERESIS TOLERANCE (+/-) 75 FT.				
MAX. CERT. ALT.	50% POINT ALTI-TUDE	PRESS. HQ	L/H ERR. (+/-) IN FT.	R/H ERR. (+/-) IN FT.
35000	17500	15.260		
41000	20500	13.471		
43000	21500	12.941		
45000	22500	12.379	22500	22500
51000	25500	11.104		
AFTER EFFECTS TEST READING (+/-) 30 FT.			LH	R

MAX. CERT. ALT.	40% POINT ALTI-TUDE	PRESS. HQ	L/H ERR. (+/-) IN FT.	R/H ERR. (+/-) IN FT.
35000	14000	17.577		
41000	16400	15.961		
43000	17200	15.451		
45000	18000	14.942	18000	18000
51000	20000	13.750		

FRICTION TEST			
ALTI-TUDE	TOLER-ANCE	L/H ALT. ERR. (+/-) FT.	R/H ALT. ERR.(+/-) FT.
1000	(+/-) 70 FT.		
2000	(+/-) 70 FT.		
3000	(+/-) 70 FT.		
5000	(+/-) 70 FT.	N/A	
10000	(+/-) 80 FT.		
15000	(+/-) 90 FT.		
20000	(+/-)100 FT.	Electronic	
25000	(+/-)120 FT.		
30000	(+/-)140 FT.		
35000	(+/-)160 FT.		
40000	(+/-)180 FT.		
50000	(+/-)250 FT.		

BAROMETRIC SCALE ERR. TEST TOLERANCE (+/-) 25 FT.			
PRESS IN HQ.	DIFFERENCE ALTITUDE IN FT.	L/H ALTIMETER	R/H ALTIMETER
28.10	952/-1727		
28.50	965/-1340		
29.00	982/-863		
29.50	999/-392	N/A	
29.92	1013/0	0/	0/
30.50	1033/531		
30.90	1046/893		
30.99	1049/974		
*CASE LEAK TEST AT 18,000 FT.			
TOLERANCE (+/-) 100 FT.		L/H ALTIMETER -43 FT	R/H ALTIMETER -43 FT
TEST EQUIPMENT			
TYPE.		SERIAL NO.	CALIB. DATE

WO #: 29019 4.1
DATE: 5-3-2013
A/C REGISTRATION NO.: N22MS
A/C SERIAL NO.: 35A 209
HOBBS: ~~N/A~~
L/H ALTIMETER P/N: 9D-80130-1
S/N: 10519
R/H ALTIMETER P/N: 9D-80130-1
S/N: 41867
AIRDATA No.1 P/N: N/A
S/N:
AIRDATA No.2 P/N: N/A
S/N:

STBY
-160

STBY
-1720
-1340
-860
-400
0
520
680
960

-1.6KTS

STBY
16650-1150
171575

WEST STAR AVIATION

TRANSPONDER/ENCODER TEST AND INSPECTION WORK SHEET

REF: CFR 91.413

ALTITUDE INFORMATION				
TEST INCREMENTS	PRIMARY ENCODER HIGH	PRIMARY ENCODER LOW	SECOND. ENCODER HIGH	SECOND. ENCODER LOW
-1000	-1000		-1000	
***0 **				
***500 **	500		500	
1000[AD]				
***1500 **	1500		1500	
2000				
3000	3000		3000	
4100[AD]				
***6000 **	6000		6000	
8000				
10000	10000		10000	
***12000 **	12000		12000	
14000	14000		14000	
15700[AD]				
**18000 **	18000		18000	
***20000 **	20000		20000	
22000	22000		22000	
25000				
***30000 **	30000		30000	
31000[AD]				
***35000 **	35000		35000	
40000				
45000	45000		45000	
***50000 **				
51000				

MAXIMUM SERVICE CEILING REFERENCE INFORMATION ***		
MAKE/MODEL	EFFECTIVITY	CEILING (Ft)
LEAR 24 & 24A	SN: 100-139	41,000
LEAR 24 & 24A	SN: 140 AND UP	45,000
LEAR 24 B - F	ALL SN's	45,000
LEAR 24E & F	WITH ECR 1410	51,000
LEAR 25A - D, &F	ALL SN's	45,000
LEAR 25D & F	WITH ECR 1409	51,000
LEAR 31 & 31A	ALL SN's	54,000
LEAR 35 & 35A	ALL SN's	45,000
LEAR 36 & 36A	ALL SN's	45,000
LEAR 45	ALL SN's	51,000
LEAR 55, 55A-C	ALL SN's	51,000
CESSNA 425	ALL SN's	35,000
CESSNA 441	ALL SN's	35,000
CESSNA 500/501	SN's 0001 TO 0213	35,000
CESSNA 500/501	SN's 0214 AND UP	41,000
CESSNA 525	ALL SN's	41,000
CESSNA 550/551	ALL SN's	43,000
CESSNA 560	ALL SN's	45,000
CESSNA 650	ALL SN's	51,000

TRANSPONDER TESTS			
TEST DESCRIPTION	TOLERANCE	#1 XPONDER	#2 XPONDER
FREQUENCY	(+/-) 3 MHz	1090.06	1088.19
RECEIVER			
SENSITIVITY	(+/-) 4db	-73.9	-70.5
-73DBM			
POWER	SEE NOTES		
MAX 500	BELOW	257	347

1. CLASS 1A AND 2A TRANSPONDERS MINIMUM POWER = 125 WATTS.
2. CLASS 1B AND 2B TRANSPONDERS MINIMUM POWER = 70 WATTS.
3. CLASS 1A, 2A, 3A, 4 AND CLASS 1B, 2B, 3B, MODE S TRANSPONDER WITH OPTIONAL HIGH RF PEAK OUTPUT POWER, MINIMUM POWER = 125 WATTS.
4. CLASS 1B, 2B, 3B, MODE S TRANSPONDER MINIMUM POWER = 70 WATTS.

WO #: 29019 4.1 DATE: 5-3-2013

A/C REG. #: N22MS A/C MAKE: Lear

A/C MODEL: 35A A/C S/N: 35A 209

HOBBS: _____ A/C TTAF: _____

No.1 TRANSPONDER MANF: _____

P/N: 622 1270 001

S/N: 1116

No.2 TRANSPONDER MANF: _____

P/N: 622 1270 001

S/N: 12937

TYPE OF TEST(S) ACCOMPLISHED

STATIC SYSTEM CHECK PER 14 CFR 43, PARA (a) OF APPENDICES E & F.	N
TRANSPONDER TEST PER 14 CFR 43, APPENDIX E, PARA (c) & 14 CFR 91.217.	X
TRANSPONDER TEST PER 14 CFR 43, APPENDICES E & F. **(2 YEAR RECERTIFICATION)**	X

NOTES:

1. REFERENCE WORK ORDER FOR ALL TECHNICIAN AND INSPECTORS SIGNATURES.
2. RECORD THE PILOT'S ALTIMETER READING AT THE INSTANT OF TRANSITION IN THE DIGITIZER.
3. THE DIFFERENCE BETWEEN THE AUTOMATIC REPORTING OUTPUT AND THE ALTITUDE DISPLAYED AT THE ALTIMETER SHALL NOT EXCEED 125 FEET, AT ANY POINT.

* CHECK ENCODING AT THESE ALTITUDES.

** ADJUST THE ALTITUDE ALERTER AT THIS ALTITUDE.

*** FOR REFERENCE ONLY.

[AD] CHECK THESE POINTS TO COMPLY WITH AD 99-23-22.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

STATEMENT OF COMPLIANCE WITH THE FEDERAL AVIATION REGULATIONS

1. DATE: May 8, 2013

AIRCRAFT OR AIRCRAFT COMPONENT IDENTIFICATION

2. MAKE	3. MODEL NO.	4. TYPE (Airplane, Engine, Propeller, etc.)	5. NAME OF APPLICANT
Learjet	35A S/N 35-209	Airplane	West Star Aviation, Inc.

LIST OF DATA

6. IDENTIFICATION	7. TITLE
6875312-001 Rev (I/R) dated 04/11/13	UNIVERSAL DUAL UNS-1E UPGRADE

This approval indicates the data listed above demonstrates compliance only with the regulations specified by paragraph and subparagraph listed below as "Applicable Requirements." Compliance to additional regulations not listed here may be required. This form does not constitute FAA approval of all data necessary for substantiation of compliance to necessary requirements for the entire alteration. This approval is for engineering data approval only and is not installation approval.

NOTE:
1) **This approval covers electrical details only, "No Approval of Structural Aspects", and is valid only for Learjet Model 35A, S/N 35-209.**
2) **This system must be tested for proper operation and interference with existing aircraft systems.**

8. PURPOSE OF DATA
Approve the wiring diagram for a major alteration for the upgrade of the Dual Universal Avionics UNS-1M to UNS-1E Flight Management Systems in a Learjet Model 35A aircraft, S/N 35-209.

9. APPLICABLE REQUIREMENTS (List specific sections)
14 CFR Part 25, Sections:
25.1301 (a)(b)(c) No Amdt
25.1309 (a) No Amdt
25.1357 (a)(c) No Amdt

10. CERTIFICATION - Under authority vested by direction of the Administrator and in accordance with conditions and limitations of appointment under 14 CFR Part 183, data listed above and on attached sheets numbered N/A have been examined in accordance with established procedures and found to comply with applicable requirements of the Airworthiness Standards listed.

(I/We) Therefore
- [ ] Recommend approval of these data
- [x] Approve these data

11. SIGNATURE OF DESIGNATED ENGINEERING REPRESENTATIVE(S)	12. DESIGNATION NUMBER(S)	13. CLASSIFICATION(S)
John L. Wiginton	DERT-230135-CE	Systems & Equipment (EE)
		JLW-1305-01

FAA Form 8110-3 (2/93) SUPERSEDES PREVIOUS EDITION

WEST STAR AVIATION

Amendment to Aircraft Equipment List and Weight and Balance

Aircraft Make: Lear Jet	Aircraft Model: 35A	Aircraft Serial: 35A-209
Date: MAY/08/2013		Aircraft Owner: Evergreen Equity Inc

PREVIOUS AIRCRAFT WEIGHT & BALANCE INFO.		WEIGHT	ARM	MOMENT
BY: Evergreen Helicopters		***10104***	***382.57***	***3865542.2***

EQUIPMENT ***INSTALLED*** IN AIRCRAFT			WEIGHT	ARM	MOMENT
DESCRIPTION	MODEL/PART NUMBER	SERIAL NUMBER			
UNS-1E FMS	2017-42-211	1186	7.65	184.78	1413.57
UNS-1E FMS	2017-42-211	196	7.65	184.78	1413.57
GPS Antenna	10706	16291	0.50	234.19	117.10
GPS Antenna	10706	16292	0.50	271.99	136.00
SSDTU	1408-00-2	2312	2.50	198.80	497.00
Configuration Module	10171	6320	0.10	184.78	18.48
Configuration Module	10171	6321	0.10	184.78	18.48
TOTALS OF EQUIPMENT INSTALLED			***19.00***		***3614.18***

EQUIPMENT ***REMOVED*** FROM AIRCRAFT			WEIGHT	ARM	MOMENT
DESCRIPTION	MODEL/PART NUMBER	SERIAL NUMBER			
UNS-1M FMS	1013-41-011	828	6.5	184.78	1201.07
UNS-1M FMS	1013-41-011	829	6.5	184.78	1201.07
Handset W/ Cabin Control	400-0031-1	2759	2.70	332.66	898.18
Handset Cockpit	400-0030-1	380	1.13	196.99	222.60
Cockpit Control Unit	400-0032-2	1577	1.10	195.80	215.38
RT-18D	400-0033	3294	7.10	192.75	1368.53
TOTALS OF EQUIPMENT REMOVED			***12.03***		***2704.69***

AMENDED AIRCRAFT WEIGHT AND BALANCE INFORMATION

NEW AIRCRAFT EMPTY WEIGHT:	***10110.97***
NEW AIRCRAFT MOMENT:	***3866451.69***
NEW AIRCRAFT EMPTY C.G.:	***382.40***

Note: *Refer to the aircraft Flight Manual for maximum weights and C.G. limits.*

Signed: Craig Stout

WEST STAR AVIATION, INC.
796 Heritage Way -- Grand Junction, CO 81506 -- (970) 243-7500
FAA CRS# WTXR173J

WEST STAR AVIATION

EQUIPMENT REMOVAL & INSTALLATION LIST

A/C MAKE:	A/C MODEL:	A/C SN:	REGISTRATION #:	WORK ORDER #:	SHEET
LEAR	L-35A	209	N22MS	29019	1 OF 3

#	ITEM DESCRIPTION	PART #	SERIAL #	REMOVED BY			INSTALLED BY			TECH	OK CLOSE	FINAL
				INITIAL	DEPT	DATE	INITIAL	DEPT	DATE			
	HF Control CTL-230	622-6614-023	2249	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	ADF Control 614L-12	787-6366-008	6522	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	CVR Control	1610-01	850	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	Cabin Temp Ind. Panel	6608101-4	635	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	FliteFone III Cockpit Control	400-0032-2	1577	SM	15	4/22	REMOVED				~~SS~~	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	Yaw Damper	501-1111-02	1502	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	Comm 2 / ATC Control	G-5394A	121	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	Mode Selector	622-0945-003	2032	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	PSE Intercom	11900D	K13197-DAP	SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									
	FliteFone III RT-18	400-0033-	3294	SM	15	4/22	REMOVED				~~SS~~	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT: 7.1 lbs									
	#1 UNS 1M-NMS	1013-41-011	828	SM	15	4/22	REMOVED				~~SS~~	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT: 6.5 lbs									
	#2 UNS 1M-NMS	1013-41-011	829	SM	15	4/22	REMOVED				—	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT: 6.5 lbs									
	PEDESTAL			SM	15	4/22	SM	15	5/9		SS	
		ITEM FRAME STATION LOCATION:	ITEM WEIGHT:									

WEST STAR AVIATION

EQUIPMENT REMOVAL & INSTALLATION LIST

A/C MAKE:	A/C MODEL:	A/C SN:	REGISTRATION #:	WORK ORDER #:	SHEET 2 OF 3
LEAR	L-35A	209	N22MS	29019	

#	ITEM DESCRIPTION	PART #	SERIAL #	REMOVED BY INITIAL	REMOVED BY DEPT	REMOVED BY DATE	INSTALLED BY INITIAL	INSTALLED BY DEPT	INSTALLED BY DATE	TECH	OK CLOSE	FINAL
	Triple Trim Indicator Panel ITEM FRAME STATION LOCATION:		ITEM WEIGHT:	SM	15	4/22	SM	15	5/9			
	Fuel Control Panel ITEM FRAME STATION LOCATION:	614045-32	75360 ITEM WEIGHT:	SM	15	4/22	SM	15	5/9			
	Trim Control Panel ITEM FRAME STATION LOCATION:	2688064-9	394877a ITEM WEIGHT:	SM	15	4/22	SM	15	5/9			
	Flitefone WH18 Cabin Control Unit ITEM FRAME STATION LOCATION:	400-0030-1	2759 ITEM WEIGHT: 2.7 lbs	SM	15	4/24	REMOVED					
	Flitefone HH18 Handset & Hanger ITEM FRAME STATION LOCATION:	400-0031-1	0380 ITEM WEIGHT: 1.31 lbs	SM	15	4/24	REMOVED					
	Emer Lights / Wing Insp Light Assy ITEM FRAME STATION LOCATION:	2686129-2	— ITEM WEIGHT:	SM	15	4/24	SM	15	5/9			
	FMS Config Module ITEM FRAME STATION LOCATION:	10131	1106 ITEM WEIGHT: 1.0 oz	SM	15	4/25	REMOVED					
	FMS Config Module ITEM FRAME STATION LOCATION:	~~1203~~ 10131	404 ITEM WEIGHT: 1.0 oz	SM	15	4/25	REMOVED					
	~~NEW FMS WS-1E~~ ITEM FRAME STATION LOCATION:	2017-42-221	~~1161~~ ITEM WEIGHT: 7.65 lbs									
	~~NEW FMS WS-1E~~ ITEM FRAME STATION LOCATION:	2017-42-221	~~387~~ ITEM WEIGHT: 7.65 lbs									
	NEW FMS ANTENNA (GPS) ITEM FRAME STATION LOCATION:	AT575	16291 ITEM WEIGHT: 0.5 lbs	JM	15	5/2	JM	15	5/2	JM		
	NEW FMS ANTENNA (GPS) ITEM FRAME STATION LOCATION:	AT575	16292 ITEM WEIGHT: 0.5 lbs	JM	15	5/2	JM	15	5/2	JM		
	SSDTU ITEM FRAME STATION LOCATION:	1408-00-2	2312 ITEM WEIGHT:				SM	15	5/9	SM		

WEST STAR AVIATION

EQUIPMENT REMOVAL & INSTALLATION LIST

A/C MAKE: LEAR
A/C MODEL: L35A
A/C SN: 209
REGISTRATION #: N22MS
WORK ORDER #: 29019
SHEET 3 OF

#	ITEM DESCRIPTION	PART #	SERIAL #	REMOVED BY			INSTALLED BY			TECH	OK CLOSE	FINAL
				INITIAL	DEPT	DATE	INITIAL	DEPT	DATE			
	NEW UNS-1E FMS ITEM FRAME STATION LOCATION:	2017-42-211	196 ITEM WEIGHT:				SM	15	5/9		SS	
	NEW UNS-1E FMS ITEM FRAME STATION LOCATION:	2017-42-211	1186 ITEM WEIGHT:				SM	15	5/9		SS	
	Configuration Module ITEM FRAME STATION LOCATION:	10171	6321 ITEM WEIGHT:				SM	15	5/9		SS	
	Configuration Module ITEM FRAME STATION LOCATION:	10171	6322 ITEM WEIGHT:				SM	15	5/9		SS	
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									
	ITEM FRAME STATION LOCATION:		ITEM WEIGHT:									

WEST STAR AVIATION

PRE-DELIVERY AIRCRAFT & EQUIPMENT STATUS
LEARJET

REGISTRATION #: N22MS WORK ORDER #: 29019 DATE: 5/6/13

DESCRIPTION	*TECH*	*DESCRIPTION*	*TECH*
NOSE		***UNDERSIDE OF AIRCRAFT***	
"BLACK BOXES" FOR INSTALLATION & SECURITY	DP	FUEL PANELS/FASTENERS – SECURE	DP
O2 & N2 BOTTLES FOR INSTALL, SECURITY & O2 SET TO "ON"	DP	NO FUEL LEAKS	DP
ALCOHOL RESERVOIR LEVEL & CAP SECURED	DP	JACK PADS REMOVED &SCREWS REINSTALLED	DP
NOSE COWLS AND ALL FASTENERS SECURED	DH	TIRE INFLATION – CHECK WITH GAUGE	DP
STALL VANES FOR FREEDOM OF MOVEMENT	DP	STRUT INFLATION – VISUAL CHECK	DP
PITOT & STATIC PORTS CLEAN AND CLEAR	DP	ANTI-SKID TRANSDUCER CAPS SAFETIED	DP
COCKPIT		GEAR/WHEEL WELL AREA FOR HYDRAULIC LEAKS	DP
MASTER CAUTION – ASSURE OPERATION	DP	INBOARD GEAR DOORS ATTACHED TO ACTUATOR – **CHECKED VISUALLY (HARDWARE IN PLACE!!)**	DP
"PRESS TO TEST" ANNUNCIATORS – OPERATION	DP		
ROTARY TEST SWITCH – ASSURE ALL FUNCTIONS	DH	OUTBOARD GEAR DOOR RODS ATTACHED, HARDWARE IN PLACE AND SAFETIED IF REQUIRED – **VISUALLY VERIFIED!!!**	DP
N2 BOTTLE PRESSURE (3000) PSI	DP		
O2 BOTTLE PRESSURE (1850) PSI	DP	FUSELAGE PANELS IN PLACE/SCREWS TIGHT	DP
MAP LIGHTS FOR OPERATION	DP	ALL ANTENNAS FOR SECURITY AND CONDITION	DP
INSTRUMENT LIGHTS FOR OPERATION	DP	***AIRCRAFT – GENERAL***	
PEDESTAL LIGHTING FOR OPERATION	CC	LANDING, TAXI AND RECOG. LIGHTS – OPERATION	DP
EL LIGHTING FOR OPERATION	DP	NAV. LIGHTS, STROBES & BEACONS – OPERATION	DP
FLOOD LIGHTS FOR OPERATION	DP	WING ICE LIGHTS – OPERATION	DP
ICE DETECT LIGHTS FOR OPERATION	DP	FUEL CAPS – SECURE	DP
O_2 MASKS INSTALLED, STOWED & CHECK O_2 ON	DP	WING PANELS/FAIRINGS & FASTENERS – SECURE	DP
CREW SEAT STOPS INSTALLED AND SECURED	CC	TAIL PANELS/FAIRINGS & FASTENERS – SECURE	DP
AVIONICS COMPONENTS INSTALLED & SECURE	CC	ALL STATIC WICKS – SECURE	CC
CIRCUIT BREAKERS FOR POSITION	CC	***ENGINES***	
FLIGHT CONTROLS – FREEDOM OF MOVEMENT	DP	INLETS CHECKED FOR FOD/OBSTRUCTIONS	DP
PITCH TRIM OPERATION – PRIMARY & SECOND.	DP	EXHAUST NOZZLE CHECKED FOR OBSTRUCTIONS	DP
PITCH AND ROLL TRIM – PILOT AUTHORITY	DP	ENGINE OIL LEVELS	DP
FLIGHT CONTROL TRIM POSITIONS CENTERED	DP	COWLINGS PROPERLY SECURED	DP
POWER LEVERS – CUTOFF POSITION	DP	OIL FILLER DOORS SECURED	DP
THRUST REVERSERS LEVERS – STOWED POS.	DP	THRUST REVERSERS STOWED	DP
COMPASS CARD INSTALLED	DP	***HELL HOLE***	
CUSTOMER EQUIPMENT AND PROPERTY		HYDRAULIC RESERVOIR PROPERLY SERVICED	DP
AIRCRAFT FLIGHT MANUAL IN AIRCRAFT	DH	HYD. ACCUMULATOR PRE-CHARGE (850) PSI	DP
TRIP LOG/CHARTS ONBOARD AIRCRAFT	DH	HYD RESERVOIR CAP TIGHT	DP
MAINTENANCE LOG IN AIRCRAFT	DH	BATTERIES SECURED, CONNECTED & SAFETIED	DP
CERTIFICATE OF AIRWORTHINESS IN PLACE	DH	SECURITY OF COMPONENTS (SPARE TIRE, ETC)	DP
AIRCRAFT REGISTRATION IN PLACE	DH	FLUID LEAKS	DP
CUSTOMER PROPERTY RETURNED TO A/C (KEYS?)	DH	MAINTENANCE EQUIPMENT REMOVED	DP
CABIN		CAP & PLUG REMOVED FROM PRESS / HYD SYSTEM & LINE CONNECTED	DP
SEATS /SEAT STOPS INSTALLED, BELTS POSITIONED	DP	DRAG CHUTE INSTALLATION	N/A
INTERIOR CLEAN AND PRESENTABLE	CC	HELL HOLE DOOR CLOSED AND SECURED	DH
EMERG. EXIT HANDLE SAFETIED (BREAK-AWAY)	DP	***CREW LEADER OR LEADMAN***	
FLUORESCENT LIGHTS FOR OPERATION	DP	LOG ENTRY COMPLETED AND IN LOGS	DH
READING LIGHTS FOR OPERATION	DP	"145 STICKER" SIGNED	DH
SEAT BELT/NO SMOKING SIGN – OPERATION	N/A	ENGINE/AIRFRAME RUNS COMPLETED	DB
		ORANGE TAG PLACED IN WORK ORDER PACKET	DH

Some comp out in inst. panel For AJ

Still Head? C.B. out For AJ

AJ install not done – Batts not connected

FAA Approved
Instructions for Initial and Continued Airworthiness for Learjet Models 35/35A/36/36A Airplanes Qualified for Operations in Reduced Vertical Separation Minimum (RVSM) Airspace

Supplemental Type Certificate No: ST00952SE-D

Airplane Model	Serial Numbers
35	35-002 to 35-066
35A	35-067 to 35-676
36	36-001 to 36-017
36A	36-018 to 36-063

Inspections and tests required for RVSM Initial Airworthiness Compliance must be conducted per the instructions in this document, prior to receiving RVSM Operational Approval. After RVSM Approval is granted, the operator must perform inspections and tests required for Continued Airworthiness Compliance; also detailed in this document.

These instructions must be added to the existing maintenance and flight operations programs for the airplane to conduct operations in RVSM airspace. Additional care, calibration and monitoring of the condition of the airplane air data and automatic altitude control systems (with special attention in the neighborhood of the Pitot-static probes) must be taken. Any deviation from these procedures must be coordinated through the holder of this Supplemental Type Certificate (herein "STC holder") and the responsible airworthiness authority prior to operation in RVSM airspace.

The RVSM airworthiness requirements presented in this document may not be applicable to airframes on which configuration modifications were completed after delivery (including engine modifications, wing/fuselage modifications, etc.). Contact the STC holder for disposition.

The information presented in this document supplements or supercedes the basic manual only in those areas specified. For maintenance procedures pertaining to the airplane, systems and specific avionics equipment not covered in these instructions, see the manufacturer's requirements and procedures.

STC Holder: Learjet Inc.
One Learjet Way
Wichita, KS 67209

Log of Pages

Pages	Rev.	Description	Date	Approval ~ STC Holder
i-iii, 1-25	NEW	Initial Release	July 30, 2001	Andy C. Wise
2 4,5 7 11 18 23	A	Revised PN specification for Autopilot Control Panel (FC-530) Revised probe age limitation; revised Initial Airworthiness task list. Updated/corrected configuration data. Revised minimum dimensions of RVSM Critical Region. Revised SWA conformity form. Modified requirements for flight crews.	Nov. 30, 2001	John Wiginton
i 14, 22	B	Revised STC number to show DAS Approval Revised text to reference correct Section in MLESFT 1107	Jan. 23, 2003	John Wiginton
1 10 14 22	C	Section 1.1 - Modified third paragraph. Section 1.2 – Deleted phrase for colored segments for FC-200 and FC-530 differences. Added last sentence in main paragraph to 2.1.2. Added 2.1.2.1. In 2.1.3.4 – changed 5.4.2 to 5 In 2.4 – changed 5.4.2 to 5	July 1, 2003	John Wiginton
13 23	D	Modified 2.1.3.1 Deleted Section 3. B 1. Renumbered B1-5	July 1, 2003	John Wiginton

Log of Pages

Pages	Rev.	Description	Date	Approval ~ STC Holder
iv iv 1 2 3 3 4 13 18 20-25 26 26 27 27 29	E	By revision: 1. TOC: Renumbered pages 2. LOF: Added figure 11 3. Section 1.2: In the 4th Par added verbiage for factory equipped aircraft. 4. Table 2: Revised Transponder listing and added associated transponder note. 5. Section 1.3.1: Moved transponder config information to transponder note with Table 2. 6. Section 1.4.1, Para 5: Deleted ref to MLESFT 1107 and reworded to add ref to Section 2.1.6. 7. Section 1.4.2, Para 4: Deleted ref to MLESFT 1107 and reworded to add ref to Section 2.1.6. 8. Sections 2.1.3.4 & 2.1.3.5: Deleted ref to MLESFT 1107 and reworded to add ref to Section 2.1.6 9. Section 2.1.5.1, TP Step 2: Max Alt Dev was 70ft. 10. Added Section 2.1.6 and Figure 11 11. Section 2.2.3: Deleted ref to MLESFT 1107 and reworded to add ref to Section 2.1.6. 12. Section 2.2.4: Max Alt Dev was 70ft. 13. Section 2.4: Deleted MLESFT 1107 ref 14. Added Section 2.4.5 15. Section 4.2.4: TCAS II was TCAS	March 7, 2005	John Wiginton
5 13	F	By Revision: 1. Section 1.4.3 and 1.4.4 – Removed 24 Month skin mapping requirement, added step (3) and renumbered. 2. Section 2.1.4 – Removed 24 month skin mapping requirement	January 3, 2006	
4	G	By Revision: 1. Section 1.4.2 (1) added "or ST00913WI-D	March 14,2006	John Wiginton

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Section 1. Airplane Maintenance

1.1 Introduction

The Learjet 35/35A/36/36A airplane Model Group (herein "LJ35/36" Model Group) has been shown to qualify for operation in Reduced Vertical Separation Minimum (RVSM) Airspace as defined in FAA Memorandum 91-RVSM, "Interim Guidance for Approval of Aircraft for Reduced Vertical Separation Minimum (RVSM) Flight"[1].. This approval is granted based on analysis of the configuration and performance of the air data, automatic altitude control, altitude alerting and altitude reporting systems. These systems must be maintained in accordance with this document, and other current maintenance practices, to ensure initial and continued compliance to RVSM specifications. The processes and procedures contained herein apply only to the airplane Models shown on page i. The operator of a LJ35/36 airframe must first conduct the inspections, tests, and all other requirements for Initial Airworthiness compliance, as listed in Section 1.4.1 (or Section 1.4.2, as appropriate). Upon completion of the Initial Airworthiness tasks, Operational Approval is granted by the Certifying Authority. The Operator of a LJ35/36 airframe must meet with the Certifying Authority to agree on what documentation must be provided to the Certifying Authority to prove compliance with the requirements for Initial Airworthiness. After Initial Airworthiness has been granted, the airplane must be maintained in accordance with the Continued Airworthiness requirements listed in Section 1.4.3 or Section 1.4.4, as appropriate.

1.2 Aircraft Configuration

This STC is not applicable to aircraft modified with Wing Hardpoints, Aft Body Fins, Extended Tip Tanks or Weight Increase. Aircraft with these modifications must incorporate STC ST01122SE-D. Figure 1 shows the configuration and basic data pertaining to the LJ35/36 Model Group. The LJ35/36 Group consists of Model 35/35A/36/36A airframes equipped with either the J.E.T. FC-200 (herein "JET FC-200"), or J.E.T. FC-530 (herein "JET FC-530") autopilot. The RVSM maintenance requirement, for each LJ35/36 airframe, depends on which autopilot is installed. These differences are carefully noted in these instructions. If requirements pertain to BOTH of these airplane types, then no distinction will be made between the JET FC-200 requirements and the JET FC-530 requirements. In addition, all RVSM candidate Learjet Model 35/35A/36/36A group airframes with the Raisbeck Aft Fuselage Stowage Locker STC installation (STC# ST00179SE) are compatible with the RVSM certification. **It is noted that all RVSM-candidate airframes must be either equipped from the factory or modified per AMK 83-5 or AAK 79-10; Installation of Wing Fences, Stall Strips and Boundary Layer Energizers (Softflite). Modification AAK 76-4; Reduced Approach Speed System Kit – Century III, is also required.**

The LJ35/36 airplane Group (both autopilot installations) is nominally equipped with two independent air data systems comprised of independent, cross-coupled static sources, Pitot-static probes, and digital air data display units (ADDUs). The Group is also equipped with a single autopilot and RVSM-compliant altitude alerting installation. Two altitude-reporting transponders are also included in LJ35/36's RVSM-specific avionics package. The systems installation and performance have been shown to meet RVSM requirements. The airplane Model Group is equipped with two Garrett TFE-731 engines, and is certified to operate up to FL450 and M_{MO}=0.81. It is noted that the instructions contained in this document pertain to LJ35/36 equipped with these engines. Any engine changes and/or modifications (including hush kits), or aerodynamic configuration changes, may impact RVSM performance. These airframes must be assessed on a case-by-case basis to determine applicability to the LJ35/36 RVSM Group. Contact the STC holder for assistance.

[1] JAA Temporary Guidance Leaflet No. 6 is the international equivalent to 91-RVSM.

Section 1. Airplane Maintenance

1.3 Aircraft System – General Description

Static pressure information is provided to the ADDU's through cross-coupled static sources. The system static sources are located on Pitot-static probes mounted on the left and right sides of the fuselage. The static pressure data is processed & corrected by the ADDUs for display. The autopilot receives air data information from either ADDU via a unique Analog Interface Unit (AIU), while controlling and maintaining the desired flight level during cruise conditions. Each ADDU features RVSM-compliant altitude alert capability while also providing the necessary altitude information to the transponders for altitude reporting. The aircraft system components approved for RVSM operations on the LJ35/36 is provided in Table 1.

The components listed in Table 1 must be maintained in accordance with approved maintenance practices, and the Initial and Continued Airworthiness Instructions presented in this document.

Component	Manufacturer & Model	Part Number
#1 Air Data Display Unit	IS&S	9D-80130-1
#2 Air Data Display Unit	IS&S	9D-80130-1
Analog Interface Unit	IS&S	9B-81040-1
Automatic Flight Control System FC-200	J.E.T. FC-200	N/A
Autopilot Computer	J.E.T. FC-200	501-1108-03 and higher
Autopilot Controller	J.E.T. FC-200	501-1107-01 and higher
Automatic Flight Control System FC-530	J.E.T. FC-530	N/A
Autopilot Computer	J.E.T. FC-530	501-1356-06 and higher
Autopilot Control Panel	J.E.T. FC-530	501-1337-01 and higher
Altitude Alerter	IS&S	9D-80130-1
#1, #2, #3 Transponder	Various*	
Pitot-static probe – Left Side	Rosemount	0856NA1
Pitot-static probe – Right Side	Rosemount	0856NA2

Table 1. Required Avionics/Air Data Components for RVSM Operation: Learjet 35/35A/36/36A

Note: Learjet 35/35A/36/36A airplanes may be equipped with EITHER the JET FC-200 or JET FC-530 autopilot installation.

***The transponder units may vary provided the configuration meets or exceeds the requirements of one of the following Technical Standard Orders (TSO):**

TSO-C66a or TSO-C74c (Mode C)
TSO-C112 (Class 2a; Mode S)
TSO-C112a (Mode S)

If one transponder is installed in the aircraft, it must be capable of reporting from both the Pilot's and the Copilot's air data system.

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1.3.1 Avionics Components Required for RVSM Compliance ~ Special Limitations

This Supplemental Type Certificate does not constitute approval for installation of the components listed in Table 1. This STC is invalid unless these components have been installed and certified by the appropriate Certifying Authority as a separate, independent approval (see Section 1.4 for specific installation requirements for the RVSM-specific avionics components). However, if the airplane is appropriately equipped with a certified installation of the components listed in Table 1, and is maintained in accordance with the maintenance instructions presented in this document, the airframe is RVSM-compliant. Replacement of the listed equipment must be accomplished with units of identical part number only. If alternate avionics equipment is installed, or is intended to be installed, a re-evaluation of the configuration for equivalent RVSM performance must be conducted and approved. Contact the STC holder for assistance.

1.4 Requirements for RVSM Initial and Continued Airworthiness

The following inspections, tests and/or procedures must be included in the basic maintenance plan for LJ35/36 airframes, to ensure Initial and Continued Airworthiness for RVSM operation. Both the Pilot and CoPilot's systems must be maintained in accordance with these instructions. The information presented in this Section supplements or supercedes the basic airplane manuals only in those areas specified. Normal air data system maintenance, as specified in the Maintenance Manual (MM), component maintenance manual, and/or as required by Federal Aviation Regulations, must be followed as required. For maintenance procedures pertaining to the airframe, its systems, and avionics equipment not covered in these instructions, follow the manufacturer's recommendations.

1.4.1 Servicing Information for Initial Airworthiness Airplanes Equipped with the JET FC-200 Autopilot

The following inspections/tests are required for RVSM Initial Airworthiness approval for the ALJ35/36 airplanes equipped with the JET FC-200 autopilot:

(1) Implement STC number ST01199NY-D for the IS&S air data equipment installation.

(2) Conduct the Rosemount Pitot-static probe installation in accordance with STC ST00321WI-D.

(3) Conduct an air data system accuracy check using accurate ground test equipment, as described in Section 2.1.1. Verify the air data system errors are within specified RVSM tolerances.

(4) Conduct a visual inspection of the RVSM Critical Region as described in Section 2.1.2. Mark the RVSM Critical Region as specified.

(5) Conduct a Pitot-static probe inspection and installation angle measurement as described in Section 2.1.3. Verify the measured angles are within the tolerances specified in Section 2.1.6. Confirm the Pitot-static probes have less than 10,000 hours of operational service.

Probe replacement is required for probes with more than 10,000 hrs.

Section 1. Airplane Maintenance

(6) Conduct a skin waviness measurement to verify the skin contours surrounding the Pitot-static probes are RVSM-compliant (Section 2.1.4). A special tool is required to conduct the skin contour measurements, and the measurement procedure must be conducted by trained personnel. If the skin contours are determined to be acceptable, form AMI-LJ3536-SWA shall be provided to the Operator as proof of compliance.

(7) Conduct the autopilot maintenance and rigging checks provided in Section 2.1.5. Ensure the listed Service Bulletins have been incorporated.

(8) Revise the Minimum Equipment List, as discussed in Section 4.1.

Tasks (1) – (7) to be conducted at ambient temperature with the airplane resting on its landing gear, unless otherwise instructed in the above tasks. There are no jacking or leveling requirements to conduct these inspections, except as noted in Section 2.1.3 and 2.1.6.

1.4.2 Servicing Information for Initial Airworthiness Airplanes Equipped with the JET FC-530 Autopilot

The following inspections/tests are required for RVSM Initial Airworthiness approval for the LJ35/36 airplanes equipped with the JET FC-530 autopilot:

(1) Implement STC number ST00913WI or ST00913WI-D for the IS&S air data equipment installation.

(2) Conduct an air data accuracy check using accurate ground test equipment, as described in Section 2.1.1. Verify the air data system errors are within specified RVSM tolerances.

(3) Conduct a visual inspection of the RVSM Critical Region as described in Section 2.1.2. Mark the RVSM Critical Region as specified.

(4) Conduct a Pitot-static probe inspection and installation angle measurement as described in Section 2.1.3. Verify the measured angles are within the tolerances specified in Section 2.1.6. Confirm the Pitot-static probes have less than 10,000 hours of operational service. ***Probe replacement is required for probes with more than 10,000 hrs.***

(5) Conduct a skin waviness measurement to verify the skin contours surrounding the Pitot-static probes are RVSM-compliant (Section 2.1.4). A special tool is required to conduct the skin contour measurements, and the measurement procedure must be conducted by trained personnel. If the skin contours are determined to be acceptable, form AMI-LJ3536-SWA shall be provided to the Operator as proof of compliance.

(6) Conduct the autopilot maintenance and rigging checks provided in Section 2.1.5.

(7) Revise the Minimum Equipment List, as discussed in Section 4.1.

Tasks (1) – (6) to be conducted at ambient temperature with the airplane resting on its landing gear, unless otherwise instructed in the above tasks. There are no jacking or leveling requirements to conduct these inspections, except as noted in Section 2.1.3 and 2.1.6.

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1.4.3 Servicing Information for Continued Airworthiness Airplanes Equipped with the JET FC-200 Autopilot

After Initial Airworthiness approval has been granted, the following tasks must be conducted every 24 months in service:

(1) Verify the avionics components listed in Table 1 are installed and operational.
(2) Tasks (3) - (5) listed in Section 1.4.1. Verify the markings identifying the RVSM Critical Region are in good condition. Replace/rework if necessary.
(3) Inspect the skin for damage in the RVSM Critical Region, as described in section 2.1.2.
(4) Conduct a simple in-flight altitude hold check during cruise conditions, as described in Section 2.1.5.1. Verify the airplane can maintain the specified RVSM altitude hold tolerances.

1.4.4 Servicing Information for Continued Airworthiness Airplanes Equipped with the JET FC-530 Autopilot

After Initial Airworthiness approval has been granted, the following tasks must be conducted every 24 months in service:

(1) Verify the avionics components listed in Table 1 are installed and operational.
(2) Tasks (2) - (4) listed in Section 1.4.2. Verify the markings identifying the RVSM Critical Region are in good condition. Replace/rework if necessary.
(3) Inspect the skin for damage in the RVSM Critical Region, as described in section 2.1.2.
(4) Conduct a simple in-flight altitude hold check during cruise conditions, as described in Section 2.1.5.1. Verify the airplane can maintain the specified RVSM altitude hold tolerances.

1.4.5 General Servicing Information for the Avionics Components

Avionics components of identical part number may be interchanged freely during the service lifetime of this airframe. Following replacement of the ADDU's, follow the air data system test procedures presented in Section 2.1. If alternate equipment part numbers are to be installed, the units must be analyzed on a system level to determine if the new components are acceptable for RVSM. This document must be revised accordingly. Contact the STC holder for assistance.

1.4.6 General Servicing Information for the Pitot-static probes

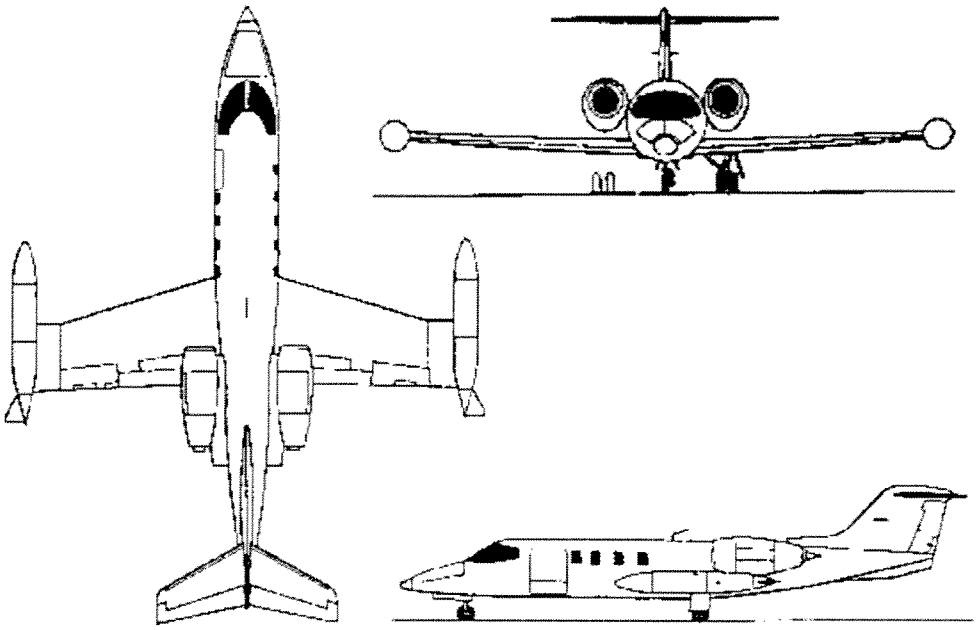
If the Pitot-static probes are removed and/or replaced during the 24-month service cycle, the following tasks must be completed:

Airframes equipped with the JET FC-200 autopilot: Tasks (4) and (5) of Section 1.4.1.
Airframes equipped with the JET FC-530 autopilot: Tasks (3) and (4) of Section 1.4.2.

All airframes: Verify the markings identifying the RVSM Critical Region are in good condition.

All airframes: If damage is sustained within the RVSM Critical Region, repair as specified in the MM. The skin contour inspection detailed in Section 2.1.4 must be repeated and the data sent to the STC holder for immediate analysis, to verify RVSM integrity.

Section 1. Airplane Maintenance



Learjet 35/35A/36/36A Model Group

		35	35A	36	36A
Dimensions					
	Height	12.25 ft	12.25 ft	12.25 ft	12.25 ft
	Length	48.67 ft	48.67 ft	48.67 ft	48.67 ft
	Wing Span	39.50 ft	39.50 ft	39.50 ft	39.50 ft
Maximum Weights					
	Ramp	18,500 lbs	18,500 lbs	18,500 lbs	18,500 lbs
	Takeoff	18,300 lbs	18,300 lbs	18,300 lbs	18,300 lbs
	Landing	15,300 lbs	15,300 lbs	15,300 lbs	15,300 lbs
	Zero Fuel	13,500 lbs	13,500 lbs	13,500 lbs	13,500 lbs
Engines					
	2 Garrett	TFE-731	TFE-731	TFE-731	TFE-731
	Thrust/engine	3,500 lbs	3,500 lbs	3,500 lbs	3,500 lbs
Performance					
	M_{MO}	0.81 Mach ALL MODELS (0.79 Mach ~ UK-configured aircraft)			
Ceiling	45,000 ft	ALL MODELS			
Applicable Aircraft		002 – 066	067 – 676	001 – 017	018 – 063

Figure 1. Learjet Model 35/35A/36/36A Specifications Summary

Section 2. Maintenance Instructions

2.1 Maintenance Schedule and Required Inspections/Tests

A LJ35/36 airframe must be maintained in accordance with the instructions provided in this Section, to ensure initial and continued compliance to RVSM systems and performance requirements. These inspections/tests include an air data system accuracy check, visual inspection of the region surrounding the Pitot-static probes ("RVSM Critical Region"), a Pitot-static probe condition inspection and installation angle check, a skin contour inspection, and special RVSM autopilot maintenance/operational tests and procedures. The maintenance intervals and required tasks are summarized in Section 1.4 and Section 3. All air data system maintenance requirements, as specified in the MM, must also be followed.

2.1.1 Air Data System Maintenance Procedures

The air data display units must be maintained in accordance with the instructions provided in this document, airplane MM and Federal Aviation Regulations (FAR)'s. However, these components must also meet the accuracy tolerances shown in Table 2, when wired together as a system. This requirement is in addition to the test specification identified in FAR Part 43, Appendix E.

-1.6 KTS
in 5 min

Test Procedure

Equipment Required: Digital Air Data Test Equipment

Note: Combined accuracy/repeatability specification for the test equipment cannot exceed ±25' for the test altitude range shown in Table 2.

This test may be performed on the aircraft using calibrated test equipment. This test is to be performed for both Pilot's and CoPilot's systems.

1. Perform a Pitot-static system leak check as described in Steps (a)-(d), below. Caution: To avoid damage to the aircraft instruments, follow all cautions and warnings in the Maintenance Manual.
    a. Apply pressure to the Pitot system (very slowly until the airspeed indicator indicates 80 knots). Increase airspeed to 300 knots at a rate not to exceed 20 knots per second.
    b. Turn off pressure, sealing off the system. The system pressure drop in five (5) minutes shall be less than 5 knots on the airspeed indicator.
    c. Set the airspeed to 200 knots on the test set and apply vacuum to the Pitot-static system until the tester altimeter indicates and altitude of 28,000 feet.
    d. Shut off vacuum source at 28,000 feet and seal off the Pitot-static system. System leakage in one minute shall not cause tester altimeter to indicate less than 27,640 feet or 360 feet in one minute.

29,957
-43 ft

2. After the leak check is completed, continue the air data test procedure by first verifying that the altitude indicator baro is set to 29.92 in Hg (1013.25 mb).
3. Apply the reference altitude and Mach (or airspeed) for the condition.
4. Record the altitude displayed by the Pilot and CoPilot's altimeters.
5. Verify that indicated altitudes are within allowable tolerances.
6. Repeat steps 3 through 5 for all the conditions listed in Table 2.

Section 2. Maintenance Instructions

Condition Number	Mach Number	Airspeed (kts)	Applied Altitude (feet)	Pilot's Altitude (feet)	CoPilot's Altitude (feet)	Nominal Altitude (feet)	Allowable Altitude Tolerance [SSEC Corrected Output] (feet)
1	0.453	170.0	29000	28940	28920	28944	28868 to 29020
2	0.581	220.0	29000	28920	28920	28915	28839 to 28991
3	0.704	270.0	29000	28920	28920	28919	28843 to 28995
4	0.799	310.0	29000	28960	28960	28969	28893 to 29045
5	0.575	190.0	35000	34900	34900	34920	34844 to 34996
6	0.631	210.0	35000	34900	34900	34916	34840 to 34992
7	0.687	230.0	35000	34900	34900	34920	34844 to 34996
8	0.742	250.0	35000	34920	34920	34936	34860 to 35012
9	0.795	270.0	35000	34960	34960	34968	34892 to 35044
10	0.687	200.0	41000	40900	40900	40921	40845 to 40997
11	0.719	210.0	41000	40920	40920	40928	40852 to 41004
12	0.750	220.0	41000	40940	40940	40940	40864 to 41016
13	0.780	230.0	41000	40950	40950	40957	40881 to 41033

Table 2. Air Data System RVSM Functional Test Specification for Learjet 35/35A/36/36A

Section 2. Maintenance Instructions

2.1.2 Visual Inspection of the Region Surrounding the Pitot-static probes (RVSM Critical Region)

Equipment Required: *None*

Note: Small markings must be applied to the corners of the RVSM Critical Region to allow for easy identification. These markings may be ANY shape, size or color; the only requirement is that they are visible to the Pilot's during a pre-flight inspection. Figure 2 defines the RVSM Critical Region. Figure 3 illustrates an example of a suitable marking and its positioning on the skin surface.

Prior to all flights in RVSM airspace, the operator must visually inspect the RVSM Critical Region for obvious damage or deformation to the surrounding skin, perhaps due to walkway damage, foreign object damage, service vehicles, etc. Examples of damage and/or anomalies on the skin surface in the RVSM Critical Region are listed in Table 3. This inspection may be performed by the flight crew as referenced in the AFMS.

Damage Examples	
Example 1	Creases, dents, heavy scratches or bulges in the skin
2	Non-flush or missing fasteners
3	External repairs and/or doublers
4	Non-flush application of aerodynamic sealant

Table 3. Examples of Skin anomalies in the RVSM Critical Region

If damage or surface irregularities are found, repair the damage in accordance with the MM and/or Structural Repair Manual (SRM). Conduct the skin contour measurement discussed in Section 2.1.4.

2.1.2.1 Repainting of aircraft

An aircraft does NOT require the RVSM skin contour measurement if it has been repainted. However, it must be ensured that there are no paint runs in the RVSM critical area. Paint runs are NOT acceptable. Note: Paint chips around the rivet heads and scratches are acceptable.

Section 2. Maintenance Instructions

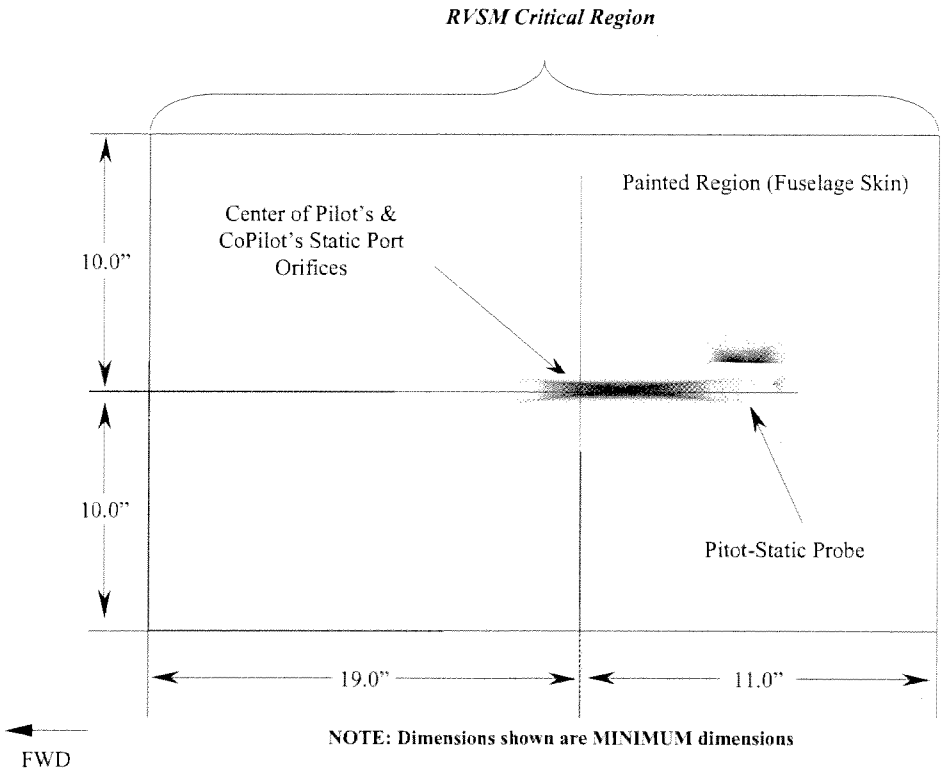


Figure 2. RVSM Critical Region Definition – Dimensions

Section 2. Maintenance Instructions

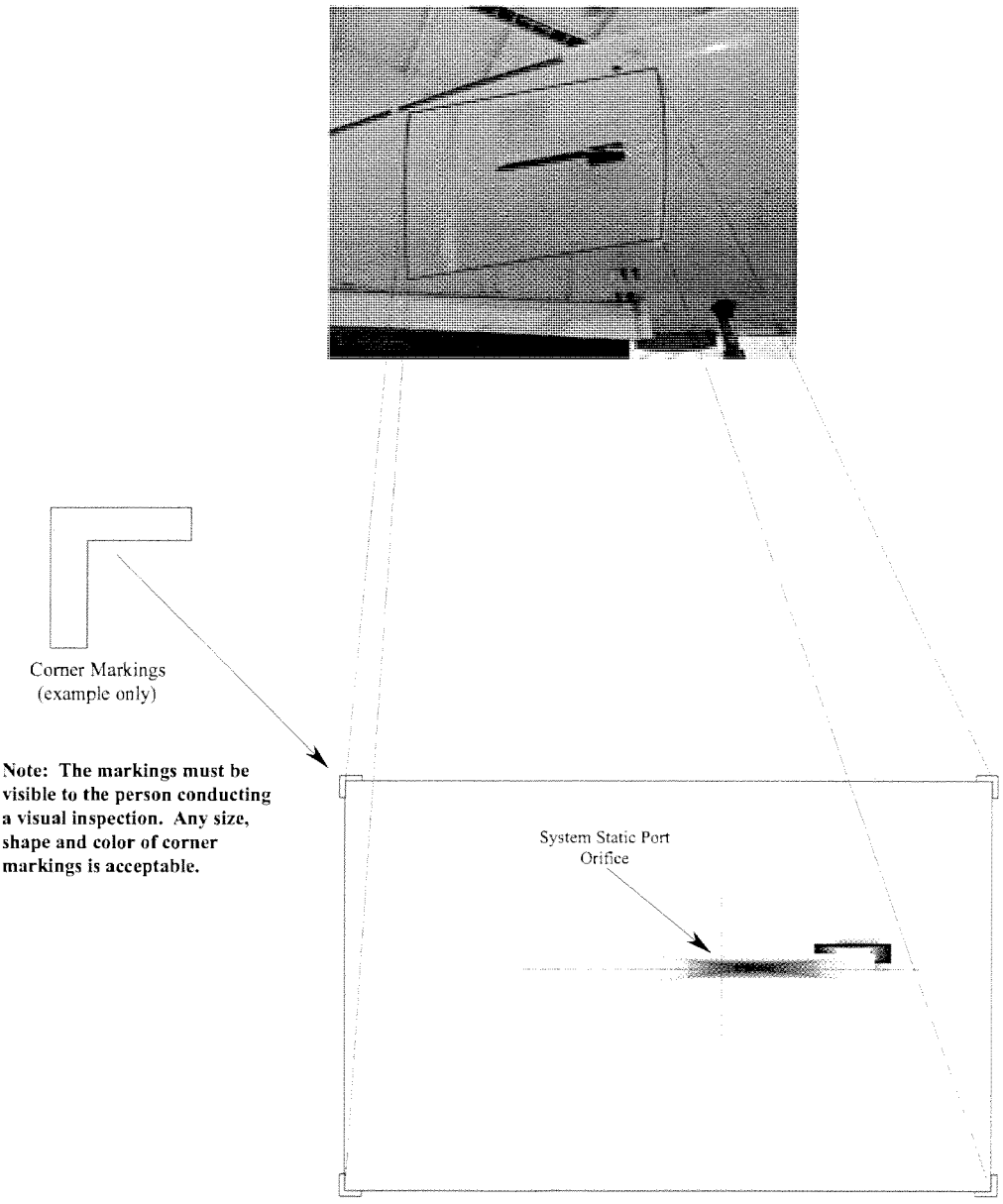


Figure 3. RVSM Critical Region – Left Side Shown

Section 2. Maintenance Instructions

2.1.3 Inspection of the Pitot-static probes for RVSM Compliance

The Pitot-static probes must be inspected initially, and periodically, to ensure the condition is acceptable for RVSM operation. The inspection consists of a general visual inspection, detailed conformity inspection, and installation angle checks. ***It is noted that sanding, probing or scarfing of the probes in any way, with or without any implement, is not an acceptable practice for verifying and/or inspecting overall Pitot-static probe condition.***

Equipment Required:	*Feeler gages or equivalent tool for measuring small geometric anomalies on the probe surface.*

2.1.3.1 General Condition Inspection

The Pitot-static probes should be inspected for physical damage to the contoured surfaces. Check for foreign material/obstruction in the static port orifices, drain hole and Pitot opening. Bent and/or twisted Pitot-static probes must be replaced immediately. This inspection may be performed by the flight crew as referenced in the AFMS.

2.1.3.2 Inspection of the General Condition of the Probe Tip

The tip of the Pitot-static probe should be inspected as discussed below. The Pitot-static probe should be replaced if the unit fails any of the following inspections:

(a) The leading edge lip of the Pitot opening should be sharp. New tubes are sharpened to a tolerance of 0.022"± 0.002" flat. The Pitot-static probe must be removed if the lip has eroded or been dented to the extent that the lip has a flatness that exceeds **0.022"± 0.005"**. Figure 4 illustrates this condition.

(b) The outer surface of the lip edge must be smooth. The lip edge cannot be curled or flared outward (Figure 5). Slide your fingernail along the outer surface at the tip to detect this condition. Replace the tube if this condition exists.

(c) Remove the tube if indentations on the lip deviate more than **0.030"** from normal tip diameter. Small inward dents on the lip (Figure 6) that do not affect the roundness of the Pitot opening are acceptable. The dent at any location around the opening must not affect more than one-fifth (20%) of the circumference. Damage of this type may be repairable. Return units removed from service to the Pitot-static probe manufacturer (B.F. Goodrich – Rosemount Aerospace) for possible repair.

(d) It is permissible for the leading edge lip to have small nicks or chips as shown in Figure 7. Replace the tube only if two or more nicks are **between 0.025" and 0.035"** deep, or if any one nick exceeds **0.035"** deep.

Section 2. Maintenance Instructions

2.1.3.3 Aerodynamic Contour Condition Inspection

The aerodynamic contour of the Pitot-static probe is critical to the overall performance of the air data system. The following inspections must be completed to verify the probe aerodynamic condition is acceptable for RVSM operation:

(a) Check the static pressure ports to make sure their edges remain perpendicular to the unit's machined contoured surface. Rounded or raised static port edges should not exceed **0.003 inches (0.003")**. See Figure 8.

(b) Check for scratches, nicks or surface irregularities deeper than **0.015 inches (0.015")** located within **0.50 inches (0.50")** of the static port orifices.

(c) Check for defects exceeding **0.025 inches (0.025")** over the rest of the head, and exceeding **0.125 inches** on the strut section of the unit.

2.1.3.4 Inspection of the Pitot-static probe Installation Angles

The Pitot-static probe orientation on the airplane is critical to ensure the aerodynamic compensation is correct for RVSM operation. The probe pitch, yaw and roll angles must be measured to verify the probe installation is acceptable. The probe alignment check procedure contained in Section 2.1.6 provides a suitable method for checking the probe installation for RVSM compliance. The probe installation tolerances contained in Section 2.1.6 are acceptable for RVSM.

2.1.3.5 Pitot-static probe replacement

If one, or both, Pitot-static probes are replaced with new probes, install the probe(s) per 34-11-01 of the maintenance manual and align the probes in accordance with Section 2.1.6.

2.1.4 Skin Contour Measurements in the RVSM Critical Region

Equipment Required:	*AeroMech Skin Contour Measurement Tool; A1M-LJ-GE*

To ensure geometric variation around the Pitot-static probes is acceptable for RVSM compliance, a specialized skin contour inspection of the RVSM Critical Region is required. This inspection must be conducted by trained personnel, using special equipment designed for the Learjet Model 35/35A/36/36A (Figure 9). The measurement procedure must be conducted in accordance with AeroMech Technical Specification AMI-TP-LJ-9903 (latest revision). If the skin contour is found to be acceptable for RVSM airworthiness approval, form AMI-LJ3536-SWA, "Reduced Vertical Separation Minimum (RVSM); Airframe Conformity Inspection Summary" (Figure 10) shall be issued to the operator as proof of compliance.

Form AMI-LJ3536-SWA shall be issued after the necessary skin contour measurements are obtained initially or upon re-measurement following damage/repair within the RVSM Critical Region. If the skin contours do not meet RVSM requirements, the STC holder shall recommend changes, such as repair alternatives, operational restrictions, and/or avionics retrofits, to ensure the overall altimetry system error levels are acceptable for RVSM operations.

Section 2. Maintenance Instructions

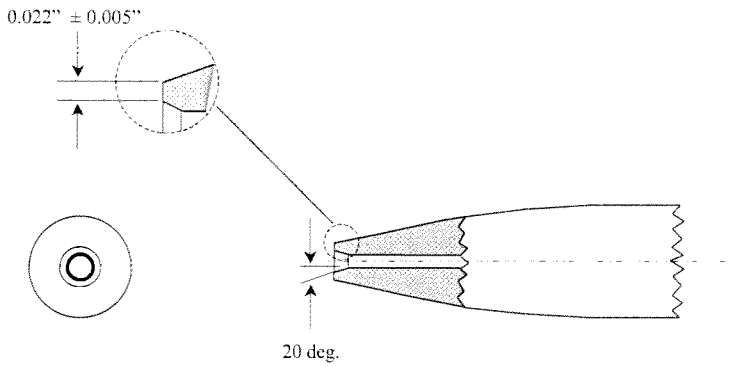


Figure 4. Pitot-static probe lip sharpness requirements

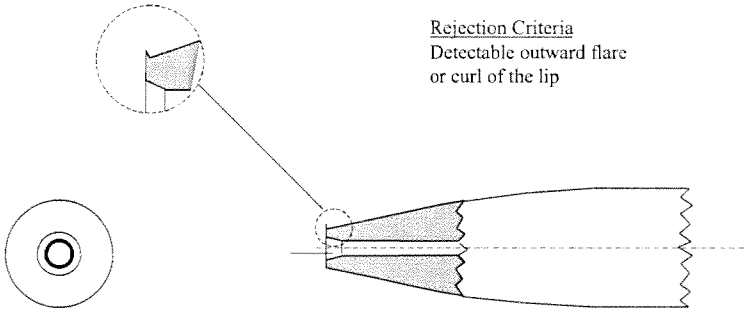


Figure 5. Pitot-static probe lip flare/curl

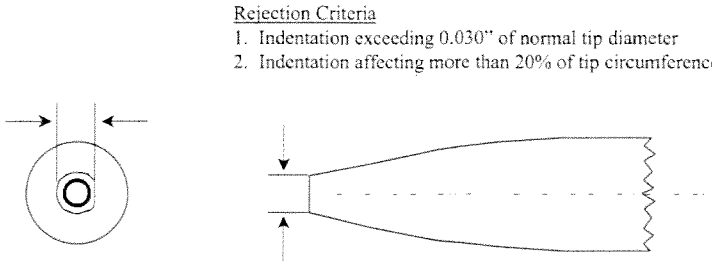


Figure 6. Pitot-static probe lip indentation

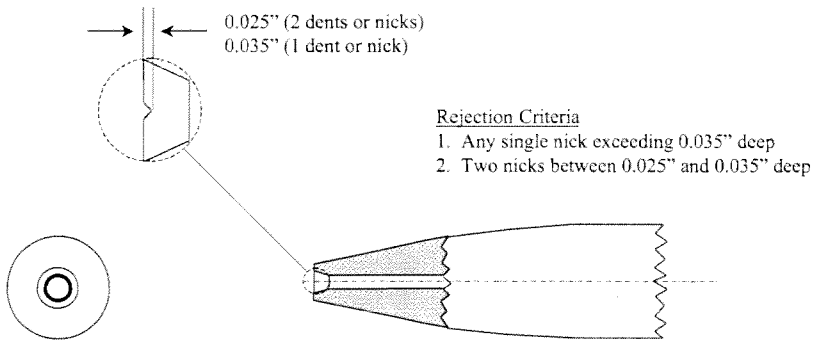


Figure 7. Requirements for nicks/dents on the Pitot-static probe tip

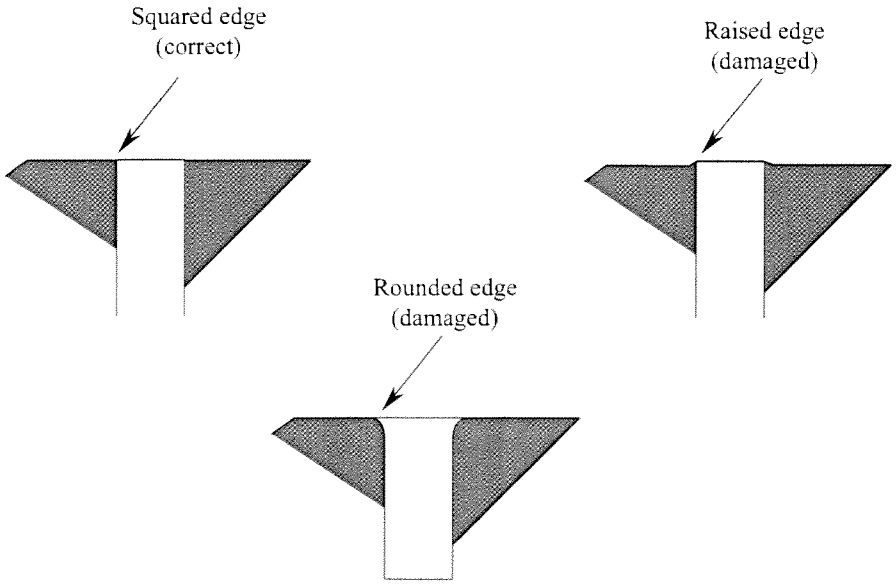


Figure 8. Static Port orifice edge condition

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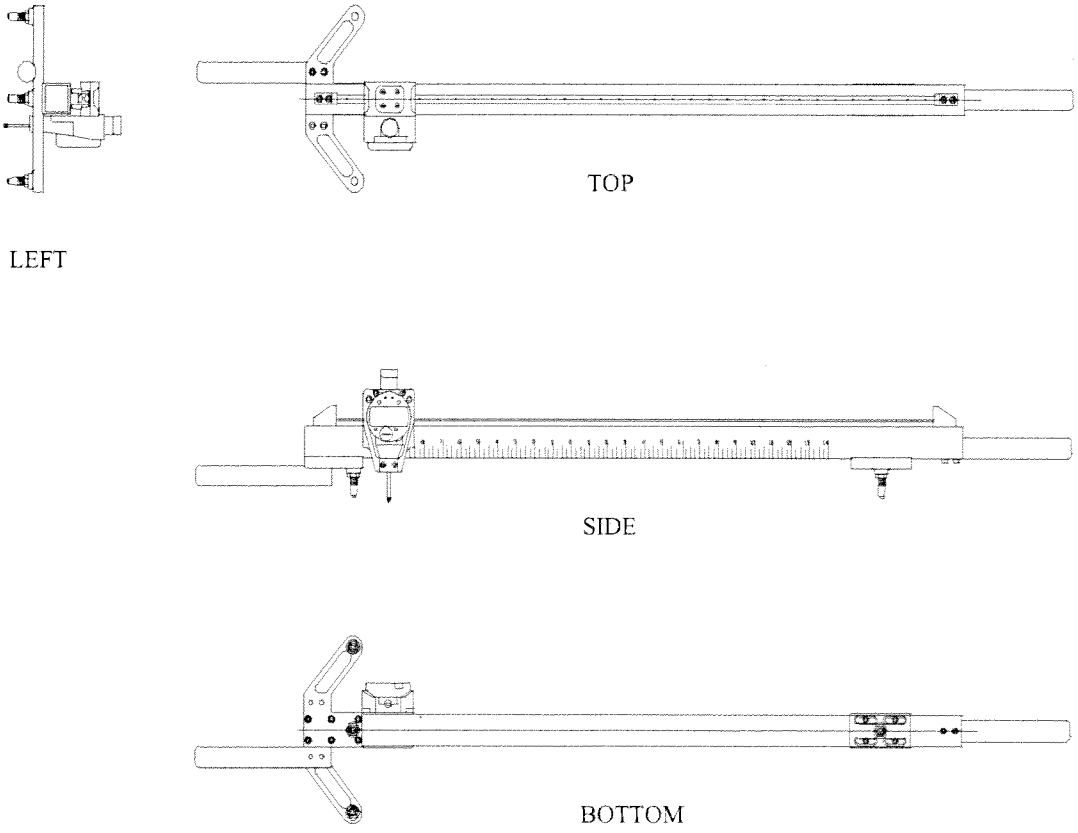


Figure 9. Skin Contour Measurement Tool A1M-LJ-GE

Section 2. Maintenance Instructions

Reduced Vertical Separation Minimum (RVSM)
Airframe Conformity Inspection Summary

Skin Contour Analysis for RVSM Compliance
Airplane Model: Learjet 35/35A/36/36A

Aircraft Serial Number: XX-YYY

The airplane designated above has been inspected and analyzed in accordance with FAA approved procedures for RVSM airworthiness compliance. The results of the RVSM skin contour analysis are provided in Table 1.

Air Data System	RVSM Status
Pilot	PASS
CoPilot	PASS

Table 1. Results of Skin Contour Analysis for RVSM Compliance
Learjet model ZZ SN XX-YYY

This airplane meets the RVSM skin contour requirements for Initial airworthiness.

Approved by: _____ Date: _____

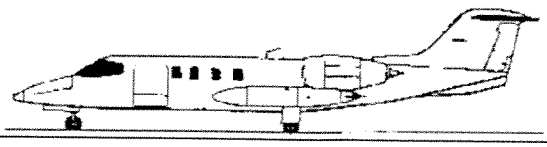


Figure 10. Skin Contour Conformity Inspection Form AMI-LJ3536-SWA

Section 2. Maintenance Instructions

2.1.5 Autopilot Adjustments for RVSM Compliance

The Learjet 35/35A/36/36A airplanes require specialized autopilot maintenance procedures to ensure the altitude hold capability is acceptable for RVSM operation.

Airplanes Equipped with the JET FC-200 Autopilot:

The JET FC-200 autopilot computer must be a –03 or above. The following Service Bulletins related to the pitch board must be complied with to update the system to the RVSM modification level:

JET SB502-1079-3A	JET SB501-1108-11B
JET SB501-1108-6	JET SB501-1108-12
JET SB501-1108-7	JET SB501-1108-13
JET SB501-1108-9A	JET SB501-1108-14

In addition to implementing the Service Bulletins listed above, conduct the following tasks:

(1) Inspect the Pitch Servo for proper torque, and ensure all Service Bulletins are implemented.
(2) Check the Pitch Capstan and cables per the airplane MM.
(3) Remove and bench test the stabilizer actuator and verify proper operation. Repair as necessary and re-install.
(4) Check elevator cables for proper tension.

Airplanes equipped with the JET FC-530 autopilot:

(1) Inspect the Pitch Servo for proper torque, and ensure all Service Bulletins are implemented.
(2) Check the Pitch Capstan and cables per the airplane MM.
(3) Remove and bench test the stabilizer actuator and verify proper operation. Repair as necessary and re-install.
(4) Check elevator cables for proper tension.

2.1.5.1 Autopilot (Altitude Hold) Performance Test

RVSM operation requires that the autopilot system maintain selected altitude to within ±65 feet, during normal cruise flight. Perform autopilot checks and/or maintenance in accordance with the instructions provided in this document and airplane MM. In addition, perform the following in-flight altitude hold performance test every 24 months.

Test Procedure

Equipment Required: *Data Tabulation Sheets (Table 4)*

1. During normal cruise flight at an altitude between FL290 and FL410 (Baro 29.92 in Hg or 1013mb) activate altitude hold on autopilot controller. Allow the aircraft to stabilize on the selected altitude. The air must be stable (no turbulence) during this check.

2. With the airplane in the normal (cruise) mode with altitude hold engaged, record the data from the primary displays (using Table 4) every 5 minutes for a flight segment up to 1 hour in length. On longer flights, the data may be recorded every 10 minutes. The maximum altitude deviation should not exceed ±65ft.

Section 2. Maintenance Instructions

RVSM Autopilot Performance Check Table

Cruise Conditions

Airplane:_____ Date:_____

Enroute to:_____ Pilot:_____

Time (Hours:Min)	Pilot's Altimeter	CoPilot's Altimeter	Pilot's Mach	CoPilot's Mach	Pilot's KCAS	CoPilot's KCAS
0:00						
0:05						
0:10						
0:15						
0:20						
0:25						
0:30						
0:35						
0:40						
0:45						
0:50						
0:55						
1:00						

Table 4. Autopilot Performance Tracking Form – Cruise Test

Notes:

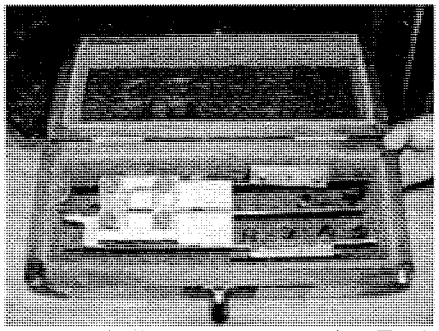
Section 2. Maintenance Instructions

2.1.6 Pitot-Static Probe Angle Alignment

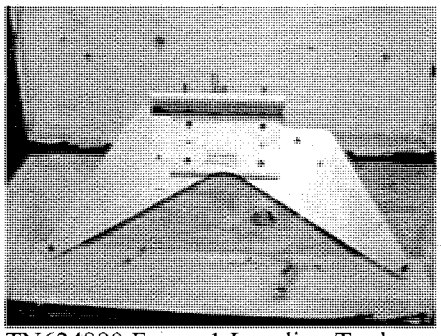
The pitot-static probe angle alignment on the airplane is critical to ensure the aerodynamic compensation is correct for RVSM operation. The probe pitch, yaw and roll angles must be measured to verify the probe installation is acceptable.

Test Procedure

Equipment Required:	SPI-31-040-9	Digital Mechanical Inclinometer - Spi-Tronic Model Pro 3600 or equivalent accuracy (.XX)
	TN623626	Pitot Probe Inspection Tool
	TN624880	Frame 1 Leveling Tool Tool

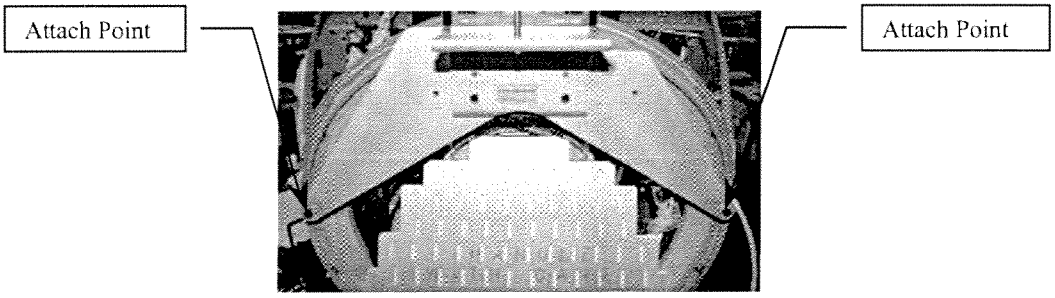


TN623626, Pitot Probe Inspection Tool



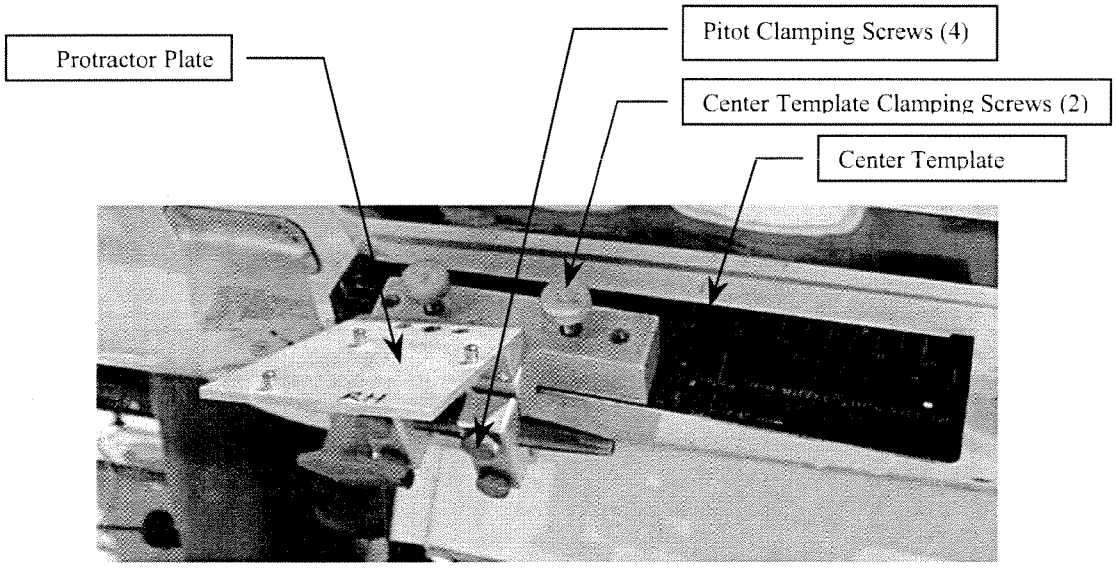
TN624880,Frame 1 Leveling Tool

1. Record left and right probe part numbers, serial numbers and total number of probe hours in the Probe Alignment Data Form (Figure 11).
2. Level aircraft per Maintenance Manual instructions.
3. Remove radome.
4. Align TN624880 Frame 1 Leveling Tool with the two existing tooling holes on the forward side of Frame #1 and attach.

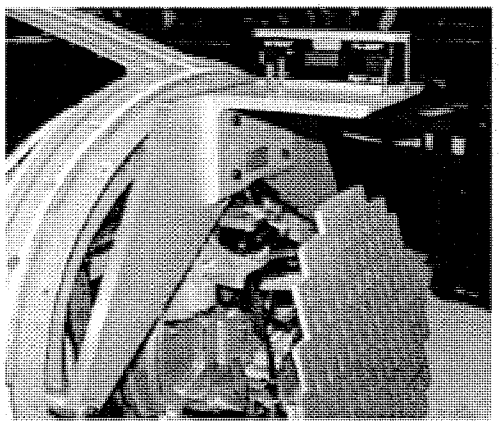


Section 2. Maintenance Instructions

5. Attach TN623626 Pitot Probe Inspection Tool onto the barrel of the right pitot-static probe, indexing it to the vane of the probe with the center template loosely attached. Locate the center template against skin contour, aligning it with the aft skin joint and indexing it to the aircraft skin and hand tighten the clamping screws. Then Attach right protractor plate and secure, as shown below:

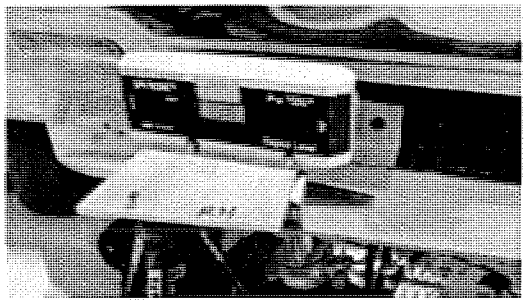


6. Position the digital protractor (in the Pitch axis) on TN624880 Frame 1 Leveling Tool (as shown below) and zero the protractor.

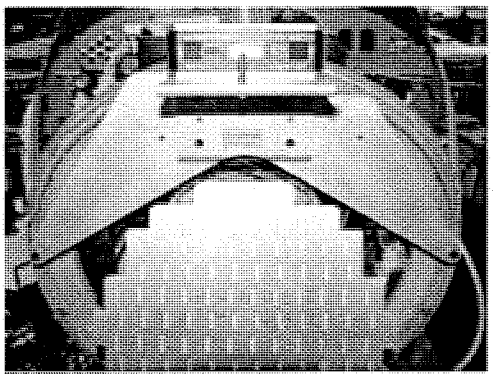


Section 2. Maintenance Instructions

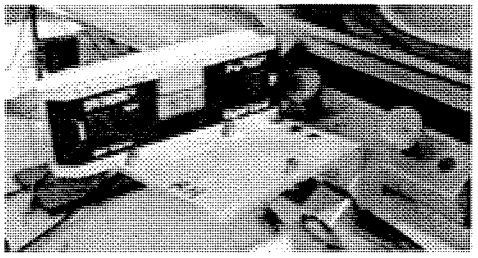
7. Place the digital protractor on the right protractor plate of the TN623626 Pitot Probe Inspection Tool, as shown below. Measure and record the pitch angle in the Probe Alignment Data Form (Figure 11).



8. Position the digital protractor (in the Roll axis) on TN624880 Frame 1 Leveling Tool (as shown below) and zero the protractor.

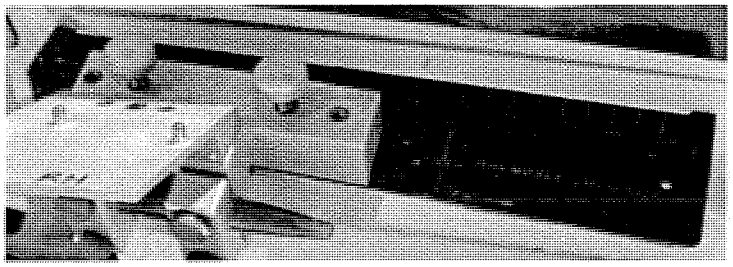


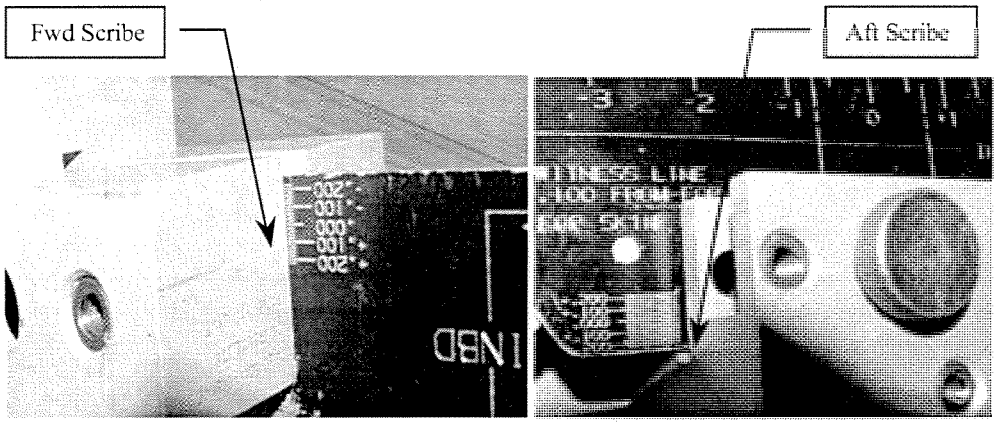
9. Place the digital protractor on the right protractor plate of the TN623626 Pitot Probe Inspection Tool, as shown below. Measure and record the roll angle in the Probe Alignment Data Form (Figure 11).



Section 2. Maintenance Instructions

10. Verify Middle Template is secured and the tabs are positioned on the contour. Measure the Yaw readings at the fore & aft scribe lines and record in the Probe Alignment Data Form (Figure 11).





11. Repeat Steps 5 through 10 for opposite left pitot-static probe alignment check.
12. Complete Probe Alignment Data Form (Figure 11) to determine if probes are in tolerance. One probe may exceed the allowable misalignment, as long as the total misalignment (left probe misalignment + right probe misalignment) does not exceed the specified limits.

Section 2. Maintenance Instructions

13. If adjustments are required, adjust probes as follows:

    a. Remove equipment in the nose bays as required to gain access to the Eccentric Nut.

    b. Loosen the 4 mounting screws on pitot probe.

    c. Remove safety wire and turn Eccentric Nut as required.

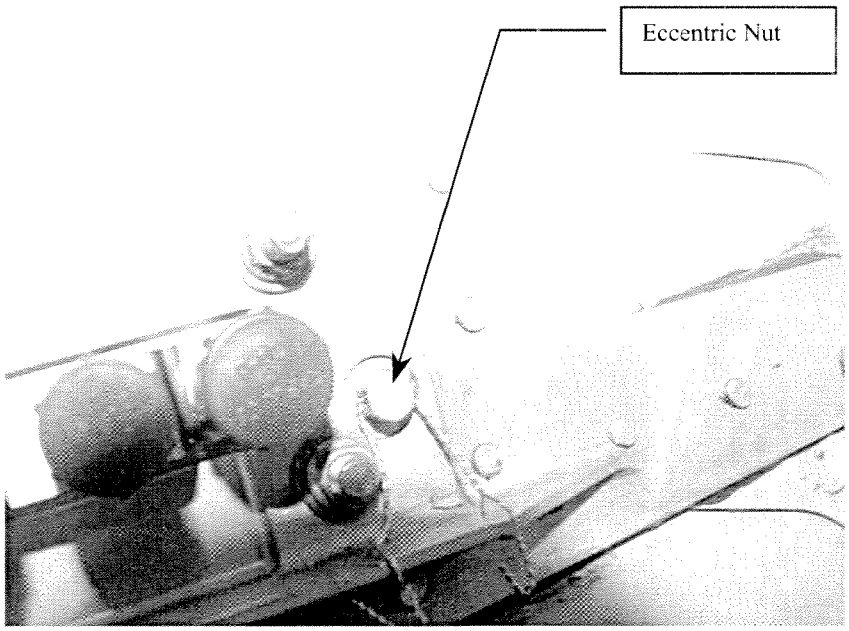
    Note: When making adjustments retighten mounting screws prior to checking and recording readings. Adjustment to probes using eccentric nut "Will" affect pitch and can affect roll, and yaw probe alignment.

    d. Tighten the 4 mounting screws on pitot probe.

    e. Safety wire Eccentric Nut.

    f. Recheck probe angle alignment.

    g. Reinstall equipment previously removed.



Section 2. Maintenance Instructions

Date: 5-14-13 **Aircraft:** N22MS

A/C Leveling Method: _____

Probe Information

	Part Number	Serial Number	Hours
Left Pitot-Static Probe	856WA1 Left	219029	
Right Pitot-Static Probe	856WA2 Right	221699	

Probe Barrel Alignment (Pitch)

	Measured Misalignment Probe Tip Up = + angle Probe Tip Dn = - angle	Allowable Tolerance Nominal = -5.00° (Dn)
Left Pitot-Static Probe	+.21	± 0.50° (± 30minutes)
Right Pitot-Static Probe	-.36	± 0.50° (± 30minutes)
Total Misalignment (= Left + Right)	.15	≤ 1.00° (≤ 60 minutes)

Probe Barrel Alignment (Roll)

	Measured Misalignment Probe Angle Up = + angle Probe Angle Dn = - angle	Allowable Tolerance Nominal = 33.5° (Dn)
Left Pitot-Static Probe	-.04	± 1.5° (± 90minutes)
Right Pitot-Static Probe	-.02	± 1.5° (± 90minutes)
Total Misalignment (= Left + Right)		≤ 3.0° (≤ 180 minutes)

Probe Barrel Alignment (Yaw)

	Probe Barrel Standoff Dist Tool Fwd Edge	Probe Barrel Standoff Dist Tool Aft Edge	Yaw Variance Distance =Fwd Edge Dist -Aft Edge Dist	Probe Yaw Misalignment $= Tan^{-1}\left(\frac{YawVarDist}{5.94"}\right)$	Allowable Yaw Misalignment (Nom Probe Yaw -9.7° (Inbd))
Left Pitot-Static Probe	2 (Fwd-Reading)	1.6 (Aft-Reading)	.2 (Difference)	(Angle-Degs)	± 1.50° (± 90 minutes)
Right Pitot-Static Probe	2 (Fwd-Reading)	2 (Aft-Reading)	0 (Difference)	0 (Angle-Degs)	± 1.50° (± 90 minutes)
		Total:	(Difference)	(Angle-Degs)	≤ 3.00° (≤ 180 minutes)

Figure 11: Probe Alignment Data Form

Section 2. Maintenance Instructions

2.2 Troubleshooting Information

The following information provides instructions for corrective action upon failure of the inspections/tests presented in Section 2.1.

2.2.1 Air Data System

If the air data system is found to exceed the requirements of Table 2, service the Pitot-static system as shown in the MM. Note that drains have been known to stick in the "UP" position due to the existence of excessive paint, and such a condition would cause excessive leakage in the Pitot-static lines. Check and drain the Pitot-static lines, conduct a leak check, and repeat the RVSM air data ground test in accordance with the procedures shown in Section 2.1.1. If the requirements of Table 2 are again exceeded, service the aberrant system as necessary to reduce the leak rate, and re-test the system per Section 2.1.1. If the test again fails, contact the airplane manufacturer for assistance.

2.2.2 RVSM Critical Region Inspection

If a visual inspection of the RVSM Critical Region (per Section 2.1.2) indicates that damage, deformation, repairs, etc. exists that may impact air data system accuracy, then the operator should conduct inspection/repairs per the MM and/or SRM. All repairs within the RVSM Critical Region must remain internal. If internal repairs are not possible, provide the STC holder with the desired repair scheme. After all repairs in the RVSM Critical Region are completed (internal OR external), a skin contour inspection must be conducted in accordance with Section 2.1.4.

2.2.3 Pitot-static probe Inspection

If the Pitot-static probe condition fails the inspection criteria provided in Section 2.1.3, service or replace the Pitot-static probes as specified. If the Pitot-static probe installation angles are measured in accordance with Section 2.1.3, and the probes are found to be outside the allowable tolerance, adjust the Pitot-static probes in accordance with Section 2.1.6, and repeat the measurement process. If the probes are still outside the allowable installation angle tolerances, the performance of the probes must be re-evaluated on a system level, to determine feasibility for RVSM compliance. Contact the STC holder for assistance.

2.2.4 Autopilot (Altitude Hold) Check

If the autopilot cannot maintain altitude to within ±65 feet from the selected cruise altitude, per the procedure of Section 2.1.5.1, repeat the autopilot check once again, ensuring the Mach number remains constant during the test, and the air remains stable during the entire check. If the check still fails, conduct autopilot component maintenance and/or servicing checks using appropriate adjustment procedures listed in Section 2.1.5. Repeat the test discussed in Section 2.1.5.1, as required, to ensure compliance with RVSM autopilot altitude hold requirements.

2.3 Installation/Removal of RVSM-relevant components

Installation and/or removal of all avionics equipment should be conducted in accordance with current approved maintenance practices. An air data systems check (per Section 2.1.1) shall be conducted upon removal and/or installation of the air data display unit.

Section 2. Maintenance Instructions

2.4 Summary of Special Tools Required for RVSM-Specific Maintenance

A summary of the tooling required to successfully implement this STC is provided below. This list does NOT include any rigging devices or adjustment tooling necessary to conduct the autopilot adjustment procedures and/or Service Bulletins listed in Section 2.1.5. Tooling requirements for these two maintenance items may be obtained from the airplane manufacturer (Learjet, Inc.).

2.4.1 Air Data Systems Check

Equipment Required: Digital Air Data Test Equipment
(Note: Combined accuracy/repeatability specification for this equipment cannot exceed ±25' for the test altitude range shown in Table 2).

2.4.2 Pitot-static probe condition inspection

Equipment Required: Feeler gages or equivalent tool for measuring small geometric anomalies on the probe surface.

2.4.3 RVSM Critical Region Skin Contour Measurement

Equipment Required: AeroMech Skin Contour Measurement Tool, A1M-LJ-GE (Figure 9)
Note: Special training required.

2.4.4 Autopilot (Altitude Hold) Performance Test

Equipment Required: Data Tabulation Sheet (Table 4)

2.4.5 Pitot-Static Probe Angle Alignment Procedure

Equipment Required: Digital Mechanical Inclinometer - Spi-Tronic Model Pro 3600 or equivalent accuracy (.XX)
Pitot Probe Inspection Tool, TN623626
Frame 1 Leveling Tool, TN624880

Section 3. Airworthiness Limitations

This Section contains a summary of the required inspections & tests, and associated maintenance intervals, to ensure Initial and Continued Airworthiness for RVSM compliance. This Airworthiness Limitations Section is FAA Approved and specifies maintenance required under §43.16 and §91.403 of the Federal Aviation Regulations unless an alternate program has been FAA approved. Both the Pilot and CoPilot's systems must be inspected and verified to the tolerances presented in this document. **It is noted that there are no Structural Airworthiness Limitations associated with RVSM airworthiness compliance of the Learjet 35/35A/36/36A Group.**

A) Initial airworthiness is contingent on performing the inspections and tests listed in Section 1.4.1 or Section 1.4.2 (as appropriate), in accordance with the instructions provided in Section 2.

B) Continued airworthiness is contingent on performing the following inspections:

1. Every 24 months, perform the inspections/tests specified in Section 1.4.3 or Section 1.4.4, as appropriate.
2. If an alternate air data, altitude alert, or autopilot component installation is desired after Initial Airworthiness approval has been granted, the new avionics configuration must be approved for RVSM operation. The operator must contact the STC holder to secure approval of the new avionics configuration. See Section 1.4.5.
3. If the Pitot-static probes are removed and/or replaced, a Pitot-static probe inspection and installation angle check is required, per Section 1.4.6.
4. If the RVSM Critical region sustains damage, or fails a visual inspection, then the discrepant condition must be remedied through current MM and/or SRM procedures. A skin contour inspection must be repeated, per Section 2.1.4, to ensure conformity to RVSM requirements.
5. Follow troubleshooting instructions, as provided in Section 2.2, upon failure of any of the inspections/tests presented in Section 2.1.

C) In addition to the items presented above, the following requirements must be fulfilled prior to securing operator approval:

1. All personnel responsible for maintenance affecting the air data, autopilot, altitude alerting and altitude reporting systems must be familiar with the maintenance procedures specified in this document. Training should be provided as necessary.
2. A revision to the Minimum Equipment List may be necessary, as described in Section 4.1.
3. RVSM-specific operational conditions must be followed while operating a LJ35/36 airplane in RVSM airspace (Section 4). All flight crews must be familiar with the Operational conditions presented in the Airplane Flight Manual (AFM) supplement (document number **AMI-01-LJ3536S**, included in these Instructions), and all other contingencies necessary for safe operation of the LJ35/36 in RVSM airspace. Note that RVSM-specific airspace procedures (contingencies and other such protocols) may differ from region to region (i.e. Europe, NAT, Pacific).

Section 4. Summary of Operational Requirements and Conditions

To ensure compliance with RVSM altimetry system accuracy and integrity requirements during RVSM operations, a LJ35/36 operator must incorporate Minimum Equipment List (MEL) changes, operational conditions and special flight crew training.

4.1 Minimum Equipment List (MEL) Revision

The Learjet Model 35/35A/36/36A MEL may be revised to require that the following equipment must be operational for dispatch into RVSM airspace.

Two (2) Air Data Display Units
One (1) automatic flight control system with altitude hold
One (1) altitude alerter
One (1) SSR altitude reporting transponder (already required for non-RVSM dispatch).

In lieu of a MEL change, the AFM supplement may serve as the vehicle for identifying the minimum equipment requirements for RVSM operation. This should be coordinated through the appropriate certifying authority when applying for Operational Approval.

4.2 Operational Conditions

4.2.1 Pre-Flight Inspection of the RVSM Critical Region

A pre-flight inspection of the RVSM Critical Region is required prior to operation in RVSM airspace.

4.2.2 ADDU1 or ADDU2 Failure

In case of ADDU1 or ADDU2 failure, a series of steps must be taken by the Pilot and/or CoPilot to continue operating in RVSM airspace. These procedures are summarized in the AFM supplement.

4.2.3 Analog Interface Unit (AIU) Failure

In case of AIU failure, a series of steps must be taken by the Pilot and/or CoPilot to continue operating in RVSM airspace. These procedures are summarized in the AFM supplement.

4.2.4 TCAS

If an ALJ35/36 airframe is equipped with TCAS II, it must be upgraded to TCAS II, Version 7.0 (or later version) to conduct operations in RVSM airspace.

4.3 Flight Crew Training

All flight crews must have knowledge and understanding of standard RVSM operating practices and procedures, as specified in FAA Memorandum 91-RVSM, "Approval of Aircraft and Operators for Flight in Airspace above Flight Level (FL) 290 where a 1,000 foot Vertical Separation Minimum is Applied", Change 1, Appendices 4 & 5, dated 6/30/99. In addition, all flight crews must have knowledge and understanding of the information contained in this document. The operations manual should be revised to include these RVSM-specific limitations and/or procedures, if necessary.

The Flight Crew should be familiar with the specific operational guidelines and contingency procedures that may be unique from one region of RVSM airspace to another (i.e. NAT, European, Pacific, WATRS, etc.).

Section 4. Summary of Operational Requirements and Conditions

4.4 Airplane Flight Manual Supplement

The Airplane Flight Manual supplement **AMI-01-LJ3536S**, included with this document, must be inserted as specified into the approved AFM. All flight crews must have knowledge and understanding of the material contained therein.

NOTES