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AVIATION

January 31, 2007  
Reply to CP/07/004

Ms. Michele Owsley  
FEDERAL AVIATION ADMINISTRATION  
Fort Worth Airplane Certification Office, ASW-150  
2601 Meacham Boulevard  
Fort Worth, Texas 76193

**Subject: Submittal of EAC CP-2072-001 Rev A (Certification Plan for the Eclipse Model 500 Weather Radar System) Dated January 31, 2007; FAA Project TD2077AC-A**

Dear Ms. Owsley,

Please find enclosed subject Certification Plan for your review and approval. Timely review and approval of the Plan would be appreciated.

If you have any questions on this submittal, please free to contact Mr. Don Ham, Eclipse Aviation at (505) 724-1743.

Best regards,

Randy Griffith  
Director Certification  
Eclipse Aviation Corporation

Enclosure

Cc:  
Don Ham, Eclipse Aviation

# **CERTIFICATION PLAN**

**for the  
Eclipse Model 500**

**Weather Radar System  
EAC CP-2072-001**



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REVISION  
**A**

PAGE  
1 of 20

## REVISION TABLE

Rev	Date	Author	Approved	Changes
A	01/31/2007	A. Tahir	007-5333-101	Initial Release



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

2 of 20

## Table of Contents

1.	PURPOSE/INTRODUCTION .....	4
2.	REFERENCE DOCUMENTS.....	5
3.	LIST OF ACRONYMS .....	8
4.	CHANGE DESCRIPTION .....	9
4.1.	WEATHER RADAR SYSTEM OVERVIEW .....	9
4.2.	HARDWARE DESCRIPTION.....	10
4.3.	SOFTWARE INTERFACES .....	11
4.4.	RADOME .....	12
5.	FAR COMPLIANCE.....	13
6.	SCHEDULE .....	15
7.	RECOMMENDED DELEGATION .....	17
A.1.	APPENDIX A – COMPLIANCE MATRIX.....	18

## Table of Contents

Figure 4-1	Weather Radar System Interfaces.....	10
Figure 4-2	Diagram showing the installation of Weather Radar in the nose cone .....	11

# 1. PURPOSE/INTRODUCTION

The purpose of this document is to define the methods, approaches, schedule, and delegations that Eclipse Aviation Corporation plans to use to show compliance to 14 CFR Part 23 §§ 23.305, 23.307, 23.611, 23.867, 23.1301, 23.1309, 23.1311, 23.1321, 23.1431, 23.1351, 23.1555, 23.1357 and 23.1581 for the Eclipse Model 500 Weather Radar and Radome. Section 3.0 provides a brief description of the Weather Radar and the Radome.

Section 4.0 provides a brief description of compliance that will be performed for the applicable FAR's, with Appendix A providing a summary Compliance Matrix using the following compliance methodologies:

- Design Review: compliance is shown by providing design description or information (i.e., drawings, schematics and engineering descriptions).
- Analysis: compliance is shown by analytical methods (i.e., structural analysis, safety analysis, thermal analysis, performance analysis).
- Component Qualification: compliance is shown by part or box level tests in test labs (i.e., DO-160 environmental tests, component/coupon tests).
- Ground Tests: compliance is shown by ground-based tests with an airplane, simulator, or the Integration Test Lab.
- Flight Tests: compliance is shown by dynamic airplane flight tests requiring a flight crew.
- Compliance Inspection: compliance is shown by physical inspection of a part, assembly, manual, layout, etc. If airplane powering is required, this would not be a compliance inspection (it would be a ground or flight test).
- Compliance Statement: compliance is shown merely by the basis of stating information (i.e., choosing one of multiple methods of compliance provided by a FAR, stating that a FAR does not apply).

Final compliance with reference to the specific compliance submittals for the FAR sections detailed in this Plan will be provided in the Certification Report for the weather radar, EAC CR-2072-101.

## 2. REFERENCE DOCUMENTS

### Regulations:

14 CFR Parts 23 Amendment 23-55

### 14 CFR Sections for the Weather Radar and Radome:

§ 23.305  
§ 23.307  
§ 23.611  
§ 23.867  
§ 23.1301 (a)(b)(c)(d)  
§ 23.1309 (a)(b)(e)  
§ 23.1311 (a)(b)  
§ 23.1321 (a)(c)(d)(e)  
§ 23.1431 (a)(b)(e)  
§ 23.1351 (a)(b)  
§ 23.1555 (a)(b)  
§ 23.1357 (a)(c)  
§ 23.1581 (a)

### FAA Policy and Guidance Material:

Document Number	Document Title
TSO-C63c	Airborne Weather and Ground Pulsed Radar
AC 23-8B	Flight Test Guide for Certification of Part 23 Airplane
AC 23-17B	Systems and Equipment Guide for Certification of Part 23 Airplanes and Airships
AC 23.1309-1C	Equipment, Systems, and Installations in Part 23 Airplanes
FAA Issue Paper SE-4	Hardware Development Assurance

### Industry Standards, Specifications, and Practices:

Document Number	Document Title
RTCA DO-160	Environmental Conditions and Test Procedures For Airborne Equipment
RTCA DO-178 B	Software Considerations in Airborne Systems and Equipment Certification
RTCA DO-254	Design Assurance Guidance for Airborne Electronic Hardware

### Applicable Vendor Documents:

The following documents are the applicable compliance documents for the Radome for the Weather Radar to be provided by Saint-Gobain Performance Plastics and Qualification compliance documents prepared by Japan Radio Company (JRC).

Document Number	Document Title
ETP-5120-400	Electromagnetic Test Plan for the Eclipse 500 Nose Radome (Saint Gobain)
ETR-5120-400	Electromagnetic Report for the Eclipse 500 Nose Radome (Saint Gobain)
LTP-5120-400	Lightning Test Plan for the Eclipse 500 Nose Radome (Saint Gobain)
LTR-5120-400	Lightning Report for the Eclipse 500 Nose Radome (Saint Gobain)
STP-5120-400	Static Pressure Test Plan for the Eclipse 500 Nose Radome (Saint Gobain)
STR-5120-400	Static Pressure Report for the Eclipse 500 Nose Radome (Saint Gobain)
KPR 3330	Weather Radar Qualification Test Plan (JRC)
KPR 3499	Weather Radar Qualification Test Report (JRC)

### **Eclipse Aviation Documents:**

The following Eclipse documents are the applicable Compliance Documents:

Document Number	Document Title
06-100106	Airplane Flight Manual (AFM)
06-117751	Airplane Maintenance Manual (AMM)
06-117753	Wiring Diagram Manual (WDM)
06-117754	Fault Isolation Manual (FIM)
06-117755	Structural Repair Manual (SRM)
EAC CP-2072-001	Weather Radar Certification Plan
EAC CR-2072-001	Weather Radar Certification Report
EAC COR-2072-201	Weather Radar Design Compliance Report
EAC COR-2072-301	Weather Radar Analysis Compliance Report
EAC COP-2072-601	Weather Radar Flight Test Compliance Plan
EAC COR-2072-601	Weather Radar Flight Test Compliance Report
EAC COR-2072-701	Weather Radar Compliance Inspection Report
EAC R02-5004	Eclipse Model 500 Electrical Power Generation and Distribution System Load Analysis
R02-5016	System Safety Analysis for the Eclipse 500 Aircraft Electronic Flight Instrument System
COP-500-AVE-601	EMI Verification Plan
COR-500-AVE-601	EMI Verification Report
EAC- WXR -SAS-01	Weather Radar Software Configuration Index
EAC-WXR-SCI-01	Weather Radar Software Accomplishment Summary
R02-5108	Software Configuration Index for the Eclipse 500
R02-5109	Software Accomplishment Summary for the Eclipse 500



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

6 of 20

Document Number	Document Title
EAC WXR-PSAC-01	Plan for Software Aspect of Certification
EAC WXR-PHAC-01	Plan for Hardware Aspect of Certification
EAC- WXR -HCI-01	Hardware Configuration Index
EAC- WXR -HAS-01	Hardware Accomplishment Summary



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

7 of 20



### 3. LIST OF ACRONYMS

Acronyms	Definitions
AC	Advisory Circular (FAA)
AFM	Aircraft Flight Manual
AMM	Airplane Maintenance Manual
APC	Avio Processing Center
ATC	Air Traffic Control
CAS	Crew Advisory System
CFR	Code of Federal Regulations
CP	Certification Plan
CR	Certification Report
EAC	Eclipse Aviation Corporation
EFIS	Electronic Flight Instrument System
EMI	Electromagnetic Interference
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FIM	Fault Isolation Manual

Acronyms	Definitions
HP	High Performance
MDL	Master Drawing List
MFD	Multi Function Display
PFD	Primary Flight Display
PHAC	Plan for Hardware Aspects of Certification
PSAC	Plan for Software Aspects of Certification
RFC	Request for Conformity
SAS	Software Accomplishment Summary
SCI	Software Configuration Index.
STC	Sensitivity Time Control
TRC	Transmitter/Receiver Computer
TSO	Technical Standard Order
WOW	Weight On Wheels



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

8 of 20

## 4. CHANGE DESCRIPTION

### 4.1. Weather Radar System Overview

The Eclipse 500 Weather Radar System (WXR) consists of an antenna subsystem, which includes the antenna and pointing control motors, and the radar electronics subsystem, which includes the transmitter, receiver, signal processing and interface functions.

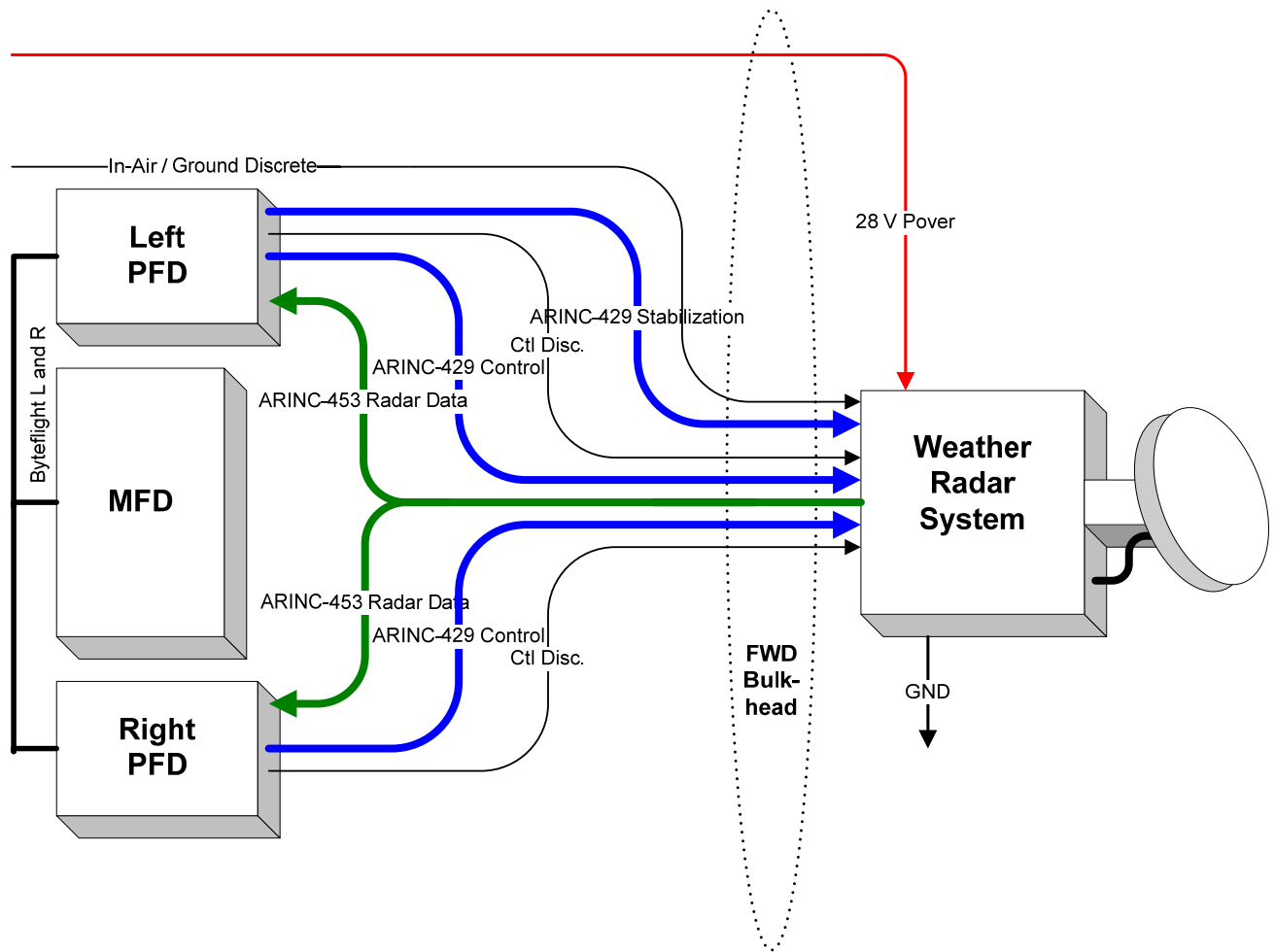
The Eclipse 500 Weather Radar is form, fit and function replacement for Honeywell Weather Radar Model RDR 2000. No changes to the EFIS are required to replace Honeywell Weather Radar with the JRC Weather Radar. All the interfaces and information display is identical.

Figure 4-1 shows the weather radar and its interface with the EFIS and figure 4-2 shows the weather radar installation in the nose cone. The two Primary Flight Displays (PFD) and/or Multi-Function Display (MFD) of the Eclipse 500 avionics suite will be used for radar information display to the pilot and for the radar control user interface. The weather radar system provides pilots with enhanced situational awareness of local weather, to aid the pilot in avoiding thunderstorms and associated turbulence. The weather radar system is not designed for use as a pilot operable terrain or collision avoidance system. Weather analysis and avoidance are the primary functions of the system.

As shown in Figure 4-1, the Eclipse 500 weather radar interfaces directly with Eclipse 500 PFD(s) for system control and radar information display to the pilot. PFD(s) send mode (standby, Weather Map, Ground Map, and Test modes), tilt, and range selection commands through ARINC 429 data Bus to weather radar. Left PFD also routes Roll and Pitch information from AHRS to weather radar through High Speed ARINC 429 data bus for Antenna stabilization purposes. The weather radar sends the weather data to PFD by ARINC 453 data bus. MFD does not directly interface to weather radar, but the PFDs and the MFD communicate over byteflight L and R bus to also display weather data on MFD.

The weather radar system design provides the following features. A conceptual functional block diagram is shown in the figure below.

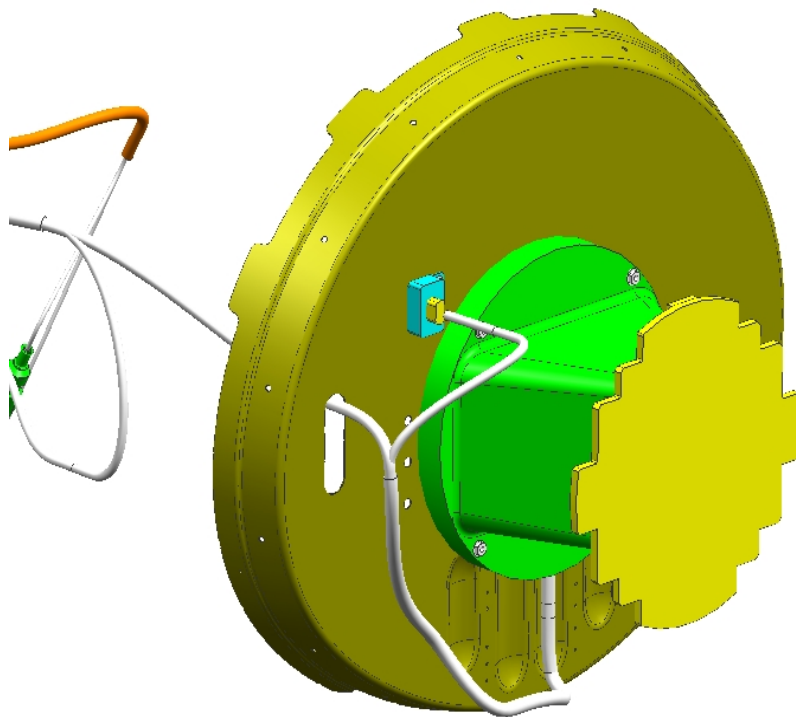
1. Transmission of radar signals and detection and classification of radar returns from precipitation including rain, snow, hail, and ice.
2. Signal processing to characterize intensity of precipitation.
3. Generation of suitable display information that identifies weather intensity and relative hazard.
4. Data communications for display or weather information and control of the weather radar system.
5. Built-In testing to identify fault conditions and annunciate them to the pilot.
6. Sufficient memory and processor power to perform the required signal processing algorithms, display generation, and control and communication with the other aircraft systems.
7. Supporting pilot interface functions (through ARINC 429 commands) to control tilt, operational mode, gain, and range.
8. Perform automatic stabilization of the radar antenna to maintain a constant scanning beam relative to the horizon, during moderate aircraft maneuvers.



**Figure 4-1 Weather Radar System Interfaces**

## 4.2. Hardware Description

The Weather Radar system consists of an antenna assembly, a modulator and power supply (MOD/PS) unit, a receiver and controller (RCV/CONT) unit, and an intermediate frequency amplifier (IF-AMP) unit. The antenna assembly consists of an antenna drive mechanism and a microwave part unit (an antenna to radiate, Magnetron, Circulator unit, Diode Limiter unit, Front-End unit). An antenna drive mechanism consists of the motors / angle sensors, and the gear mechanisms which Scan/Tilt operation is performed. Inside the chassis of an antenna drive mechanism, a MOD/PS unit, a RCV/CONT unit, and IF-AMP unit are contained. A MOD/PS unit has the function which generates the modulated high-pressure pulse and heater voltage to drives a magnetron. Moreover, it has the stabilization function of direct-current voltage required for this weather radar system. A RCV/CONT unit controls radar operation function, such as an A/D conversion function, a signal processing function, three ARINC429 reception functions, an ARINC453 status video output function, and radar control, monitor ability, for a video signal. An IF-AMP unit changes the received radar signal into a video signal. Frequency alignment detection is carried out simultaneously. A video signal and a frequency alignment detection result are sent out to a RCV/CONT unit. The back of an antenna radiation part is equipped with the microwave unit.



TFR-TRI WORK [EXPLODED]

**Figure 4-2 Diagram showing the installation of Weather Radar in the nose cone**

### 4.3. Software Interfaces

The heart of the Eclipse Aviation Weather Radar System is Hitachi H8/3067RF Central Processing Unit. The H8/3067RF is interfaced to memory devices (RAM, Flash Memory), RS 422 and RS 232 devices, Power monitor signals through internal A/D converter, FPGAs to interface with ARINC 429 inputs, ARINC 453 output, Discrete inputs, RS-422 input/outputs, Antenna Azimuth and Elevation Motors to control tilt and scan angles of the antenna, Front End Unit to control the Tune Frequency, Magnetron to enable the RF pulses, and Video processing unit in the FPGA to control range and STC. Upon turning the power on, the CPU shall initialize all the hardware. After initialization the CPU shall perform the Power-On Self-Tests, read the ARINC-429 data buses, read the discrete inputs to control the antenna for scan, tilt and stabilization, video processing unit for Sensitivity Time Control (STC) and range, magnetron to enable or disable radiation, Front End Unit to control the tuning frequency and provide video and character data on ARINC 453 bus. The CPU interfaces to RS-232 and RS-422 buses to provide debug monitor and maintenance functional capability. The CPU also monitor power inputs, antenna stabilization limits, tuning frequency performance, input and output faults and perform built-in test functions continuously in the background.

#### 4.4. Radome

Eclipse 500 Nose Radome shown in figure below is designed to cover the radar antenna while being as transparent to the radar signal as feasible.

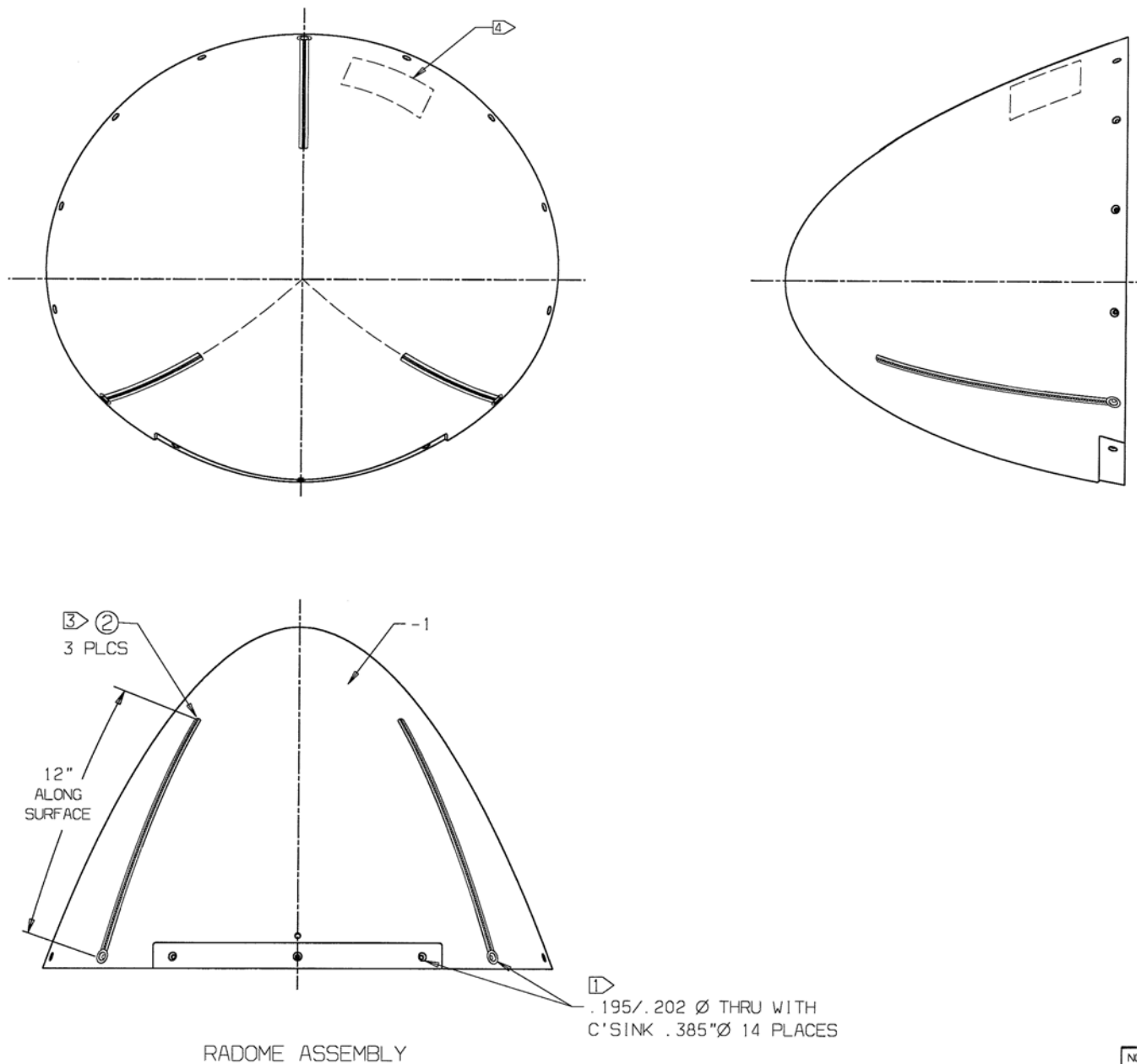


Figure: Radome Assembly

## 5. FAR COMPLIANCE

### Method of FAR Compliance:

#### 14 CFR Part 23, § 23.305 Strength and deformation

Compliance will be shown by qualification testing. The qualification test plan will be provided in STP-5120-400 and the result of qualification testing will be contained in STR-5120-400.

#### 14 CFR Part 23, § 23.307 Proof of Structure

Compliance will be shown by qualification testing. Qualification test plan will be provided in STP-5120-400. The results of qualification testing will be contained in STR-5120-400.

#### 14 CFR Part 23, § 23.611 Accessibility provisions

Compliance will be shown by compliance inspection. The plan and results for compliance inspection will be contained in EAS COP-2072-701 and EAC COR-2072-701 respectively.

#### 14 CFR Part 23, § 23.867 Electrical bonding and protection against lightning and static electricity

(a)(c) Compliance will be shown by analysis and qualification testing. The qualification test plan will be provided in LTP-5120-400. The results of analysis will be provided in EAC COR-2072-301 and the result of qualification testing will be contained in LTR-5120-400.

#### 14 CFR Part 23, § 23.1301 Function and installation

(a)(b)(c) Compliance will be shown by design review. The results of design review will be provided in EAC COR-2072-201. Software compliance will be provided by Plan for Software Aspects of Certification (PSAC) software accomplishment summary (SAS) and software configuration index (SCI), EAC WXR-PSAC-01, EAC-WXR-SAS-01 and EAC-WXR-SCI-001 respectively. Hardware compliance will be provided by Plan for Hardware Aspects of Certification, hardware accomplishment summary (HAS) and hardware configuration index (HCI), EAC WXR-PHAC-01, EAC- WXR -HAS-01 and EAC- WXR -HCI-01 respectively.

(d) Compliance will be shown by qualification tests and flight tests. The plans will be provided in KPR 3330 and EAC COP-2072-601 respectively. The corresponding results will be reported in KPR 3499 and EAC COR-2072-601. Software compliance will be provided by Plan for Software Aspects of Certification (PSAC) software accomplishment summary (SAS) and software configuration index (SCI), EAC WXR-PSAC-01, EAC-WXR-SAS-01 and EAC-WXR-SCI-001 respectively. Hardware compliance will be provided by Plan for Hardware Aspects of Certification, hardware accomplishment summary (HAS) and hardware configuration index (HCI), EAC WXR-PHAC-01, EAC- WXR -HAS-01 and EAC- WXR -HCI-01 respectively.

#### 14 CFR Part 23, § 23.1309 Equipment, systems and installation

(a)(1) Compliance will be shown by EMI testing as defined in COP-500-AVE-601. The results will be provided in the EMI Verification Report COR-500-AVE-601. Software compliance will be provided by Plan for Software Aspects of Certification (PSAC) software accomplishment summary (SAS) and software configuration index (SCI), EAC WXR-PSAC-01, EAC-WXR-SAS-01 and EAC-WXR-SCI-001 respectively. Hardware compliance will be provided by Plan for



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

13 of 20

Hardware Aspects of Certification, hardware accomplishment summary (HAS) and hardware configuration index (HCI), EAC WXR-PHAC-01, EAC- WXR -HAS-01 and EAC- WXR -HCI-01 respectively.

(a)(3) Compliance will be shown by analysis performed in accordance with AC 23.1309-1C which will be documented in R02-5016.

(e) Compliance will be shown by qualification testing. Qualification plan for the Radome and the weather radar will be contained in LTP-5120-400 and KPR 3330 respectively. The results for the Radome and weather radar will be provided in LTR-5120-400 and KPR 3499 respectively.

**14 CFR Part 23, § 23.1311 Electronic display instrument system**

(a)(2)(3)(4) Compliance will be shown by ground (HALT Lab) and flight test. Ground and Flight test plans will be contained in EAC COP-2072-601. Reports for ground and flight test will be provided in EAC COR-2072-601 respectively.

**14 CFR Part 23, § 23.1321 Arrangement and visibility**

(e) Compliance will be provided by ground (HALT Lab) and flight test. Plans will be provided in EAC COP-2072-601 and correspondingly the reports will be provided in EAC COR-2072-601

**14 CFR Part 23, § 23.1351 General**

(a) Compliance will be shown by Electrical Load Analysis, the results of which will be documented in R02-5004.

**14 CFR Part 23, § 23.1357 Circuit Protective Devices**

(a) Compliance will be shown by design review and will be reported in EAC COR-2072-201

**14 CFR Part 23, § 23.1431 Electronic equipment**

(b) Compliance will be shown by EMI test, ground test (HALT Lab) and flight test. EMI test will be performed as defined in COP-500-AVE-601 and reported in EMI Verification Report COR-500-AVE-601. Ground and flight test plan will be provided in EAC COP-2072-601. Ground and flight test reports will be provided in EAC COR-2072-601 respectively.

**14 CFR Part 23, § 23.1529 Instructions for Continued Airworthiness**

(a) Compliance will be shown by compliance inspection of the Eclipse Airplane Maintenance Manual and reported in EAC CP-2072-001

**14 CFR Part 23, § 23.1581 Equipment, systems and installation**

Compliance will be shown in the Airplane Flight Manual EAC 06-100106.



## 6. SCHEDULE

### Documentation

Doc Number	Document Title and Description	Planned FAA Submittal
<b>CERT PLANS</b>		
EAC COP-2072-001	Certification Plan for the Weather Radar	1/31/07
<b>PROGRAM</b>		
EAC WXR-PSAC-01	Plan for Software Aspect of Certification	3/1/07
EAC WXR-PHAC-01	Plan for Hardware Aspect of Certification	3/1/07
EAC 06-100106	Airplane Flight Manual	5/25/07
EAC 06-117751	Airplane Maintenance Manual	5/25/07
EAC 06-117753	Wiring Diagram Manual	5/25/07
EAC 06-117754	Fault Isolation Manual	5/25/07
EAC 06-117755	Structural Repair Manual	5/25/07
34-107295-1002	Weather Radar Installation Drawing	6/1/07
<b>DESIGN COMPLIANCE</b>		
EAC COR-2072-201	Design Compliance Report	5/25/07
<b>Component Tests/Qualification</b>		
KPR 3330	Weather Radar Qualification Test Compliance Plan	3/1/07
KPR 3499	Weather Radar Qualification Test Compliance Report	5/15/07
ETP-5120-400	Electromagnetic Test Plan for the Eclipse 500 Nose Radome	3/1/07
ETR-5120-400	Electromagnetic Test Report for the Eclipse 500 Nose Radome	4/1/2007
LTP-5120-400	Lightning Test Plan for the Eclipse 500 Nose Radome	3/1/07
LTR-5120-400	Lightning Test Report for the Eclipse 500 Nose Radome	4/1/2007
STP-5120-400	Static Pressure Test Plan for the Eclipse 500 Nose Radome	3/1/07
STR-5120-400	Static Pressure Test Report for the Eclipse 500 Nose Radome	4/1/2007
<b>FLIGHT TEST</b>		
EAC COP-2072-601	Weather Radar Flight Test Compliance Plan	3/1/07
EAC COR-2072-601	Weather Flight Test Compliance Report	5/25/07
COP-500-AVE-601	EMI Verification Plan	3/1/07
COR-500-AVE-601	EMI Verification Report	5/25/07
<b>Compliance Inspection</b>		



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ECLIPSE DOCUMENT NO.

**EAC CP-2072-001**

REVISION

**A**

PAGE

15 of 20



Doc Number	Document Title and Description	Planned FAA Submittal
EAC COP-2072-701	<b>Weather Radar Compliance Inspection Plan</b>	4/1/07
EAC COR-2072-701	<b>Weather Radar Compliance Inspection Report</b>	5/25/07
<b>SOFTWARE</b>		
EAC- WXR -SAS-01	<b>Weather Radar Software Configuration Index</b>	5/27/2007
EAC-WXR-SCI-01	<b>Weather Radar Software Accomplishment Summary</b>	5/27/2007
<b>CERT REPORTS</b>		
EAC COR-2072-001	<b>Weather Radar Certification Report</b>	6/1/2007

### Tests/Inspections

Test/Inspection	Planned Dates
<b>Compliance Inspection</b>	5/19/07
<b>Weather Radar Qualification Test (JRC)</b>	3/15 – 5/15/2007
<b>Electromagnetic Test for the Nose Radome (Saint Gobain)</b>	3/15 – 5/15/2007
<b>Lightning Test for the Nose Radome (Saint Gobain)</b>	3/15 – 5/15/2007
<b>Static Pressure Test for the Nose Radome(Saint Gobain)</b>	3/15 – 5/15/2007
<b>Ground Test</b>	4/15 – 5/15/2007
<b>Flight Test</b>	5/19 – 5/31/2007



## 7. RECOMMENDED DELEGATION

The following Table provides the Eclipse planned use of DER's associated with this Certification Plan. Items marked with an "X" indicates that Eclipse is requesting use of this DER and is requesting delegation for all the various events associated with the items (i.e., Plan approval, test witnessing, Report approval). Items marked with an "RA" indicate that Eclipse is requesting use of this DER in a "recommend approval" capacity.

Item	Planned DER								
	Lloyd Bingham	Don Ham	Paul La Pietra	Rusty Picard	Dave Warner	Chris Nelson	Chris Jackman	Dave Stressing	Allen Hall
Airplane Flight Manual	RA								
Wiring Diagram Manual		X		X					
Structural Repair Manual						X			
Radar Qualification				X	X				
Radome Stress Test								X	
Radome RF Tests								X	
Radome Lightning Test									X
Design Compliance Report				X	X				
Systems Ground Test				X	X				
Flight Test	X				X				
Compliance Inspection				X	X				
System Safety Analysis							X		
Electrical Load Analysis				X					
Weather Radar SAS			X						
Weather Radar SCI			X						
Weather Radar HAS			X						
Weather Radar HCI			X						
Weather Radar PSAC			X						
Weather Radar PHAC			X						
Program SCI			X						
Program SAS			X						

## **A.1. APPENDIX A – COMPLIANCE MATRIX**

DES = DESIGN REVIEW  
ANA = ANALYSIS  
QUAL = COMPONENT QUALIFICATION  
GT = GROUND TESTS  
FT = FLIGHT TESTS  
CI = COMPLIANCE INSPECTION  
STMT = COMPLIANCE STATEMENT



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**EAC CP-2072-001**

REVISION

**A**

PAGE

18 of 20

FAR	MOC							PLAN	REPORT
	Des	Ana	Qual.	GT	FT	CI	Stmt		
23.305			X					STP-5120-400	STR-5120-400
23.307	X		X					STP-5120-400	STR-5120-400
23.611						X		EAC COP-2072-701	EAC COR-2072-701
23.867		X	X					LTP-5120-400	EAC COR-2072-201 LTP-5120-400
23.1301 (a)(b)(c)	X								EAC COR-2072-301 EAC WXR-PSAC-01 EAC-WXR-SAS-01 EAC-WXR-SCI-01 EAC WXR-PHAC-01 EAC-WXR-HAS-01 EAC-WXR-HCI-01
23.1301(d)			X		X			KPR 3330 EAC COP-2072-601	KPR 3499 EAC COR-2072-601 EAC WXR-PSAC-01 EAC-WXR-SAS-01 EAC-WXR-SCI-01 EAC WXR-PHAC-01 EAC-WXR-HAS-01 EAC-WXR-HCI-01
23.1309 (a)(1)	X								EAC WXR-PSAC-01 EAC-WXR-SAS-01 EAC-WXR-SCI-01 EAC WXR-PHAC-01 EAC-WXR-HAS-01 EAC-WXR-HCI-01
23.1309 (a)(3)		X							R02-5016
23.1309(e)			X					LTP-5120-400 KPR 3330	LTR-5120-400 KPR 3499



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REVISION

**A**

PAGE

19 of 20

FAR	MOC							PLAN	REPORT
	Des	Ana	Qual.	GT	FT	CI	Stmt		
23.1311 (a)(2)(3)(4)				X	X			EAC COP-2072-601	EAC COR-2072-601
23.1321				X	X			EAC COP-2072-601	EAC COR-2072-601
23.1351		X							EAC R02-5004
23.1357	X								EAC COR-2072-201
23.1431(b)	X			X	X			COP-500-AVE-601 EAC COP-2072-601	COR-500-AVE-601 EAC COR-2072-601
23.1529						X			EAC CR-2072-001
23.1581	X								EAC 06-100106


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PAGE

20 of 20