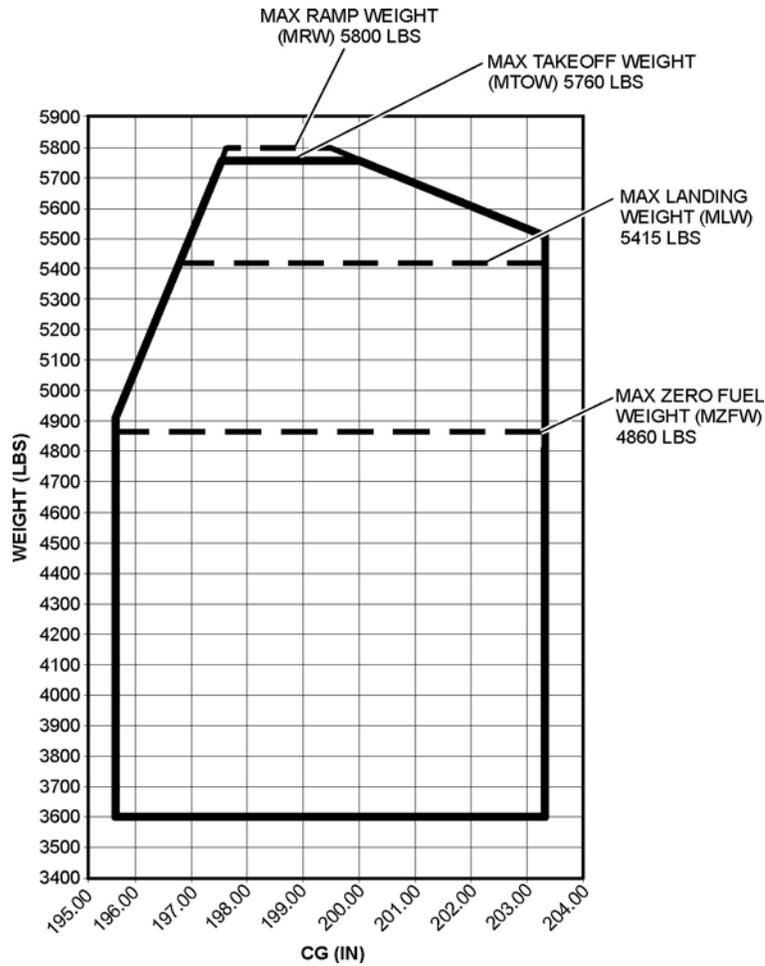




Center of Gravity (C.G.) Range



Forward limits: 195.65 inches aft of datum up to 4,910 lbs with a straight line taper to 197.5 inches at 5,760 lbs.

Aft Limits: 203.25 inches aft of datum up to 5,509 lbs with a straight line taper to 200.0 inches at 5,760 lbs.

Empty Weight. C.G. Range None

Minimum Crew 1 Pilot plus required equipment as specified in the FAA Approved Airplane Flight Manual (AFM)

Maximum Weights  
 Max. Ramp 5,800 lbs  
 Max. Takeoff 5,760 lbs  
 Max. Landing 5,415 lbs  
 Max. Zero Fuel 4,860 lbs

Number of Seats 6 Max (Includes pilot and crew); Refer to the FAA Approved Airplane Flight Manual (AFM), Document No. 06-100106, revision 4, dated December 13, 2007 or earlier FAA approved revision, Section 6 for seat configurations and moment arms.

Maximum Compartments Weights 260 lbs; 1 compartment, moment arm 217.92 inches aft of datum  
 Baggage Compartment floor loading is 100 lb/ft<sup>2</sup>  
 Cabin floor loading is 80 lb/ft<sup>2</sup>

Fuel Capacity	227.5 gallons (USG) total; 224 gallons (USG) usable; 3.5 gallons (USG) unusable Moment arm 198 inches aft of datum
Oil Capacity	6.48 quarts (USQ) total per engine; 1.15 quarts (USQ) usable per engine
Maximum Operating Altitude	Takeoff 10,000 ft MSL Operating 41,000 ft MSL

## Control Surface Movements

Elevator	UP	$25^{\circ} \pm 0.5^{\circ}$	DOWN	$15^{\circ} \pm 0.5^{\circ}$
Elevator Trim Tab	UP	$20.0^{\circ} \pm 1.0^{\circ}$	DOWN	$20.0^{\circ} \pm 1.0^{\circ}$
Ailerons	UP	$15.5^{\circ} + 0.5^{\circ} / -0.2^{\circ}$	DOWN	$11.6^{\circ} + 0.5^{\circ} / -0.2^{\circ}$
Aileron Trim	UP	$5.4^{\circ} \pm 0.3^{\circ}$	DOWN	$4.8^{\circ} \pm 0.3^{\circ}$
Rudder	LEFT	$30^{\circ} \pm 0.5^{\circ}$	RIGHT	$30^{\circ} \pm 0.5^{\circ}$
Rudder Trim Tab	LEFT	$20.0^{\circ} \pm 1.0^{\circ}$	RIGHT	$20.0^{\circ} \pm 1.0^{\circ}$
Flaps	Cruise	$0^{\circ} \pm 0.5^{\circ}$		
	Takeoff	$16.8^{\circ} \pm 0.5^{\circ}$		
	Landing	$33.8^{\circ} \pm 1.0^{\circ}$		

**For serial numbers 000039-104 and serial numbers 000001-000038 which incorporate Eclipse Aviation FAA/DER approved Service Bulletin, SB 500-99-001.**

Engines Two Pratt & Whitney Canada PW610F-A,  
Type Certificate Data Sheet (TCDS) E00074EN

Fuel JET A and Jet A-1 per ASTM D 1655; JP-8 per MIL-T-83133

Fuels not containing icing inhibitors must have MIL-I-27686, MIL-I-85470, or Phillips PFA-55MB fuel system icing inhibitors blended into the aircraft fuel at concentrations not less than 0.10% but no more than 0.15% by volume. The minimum fuel icing inhibitor content during refueling is 0.10% by volume.

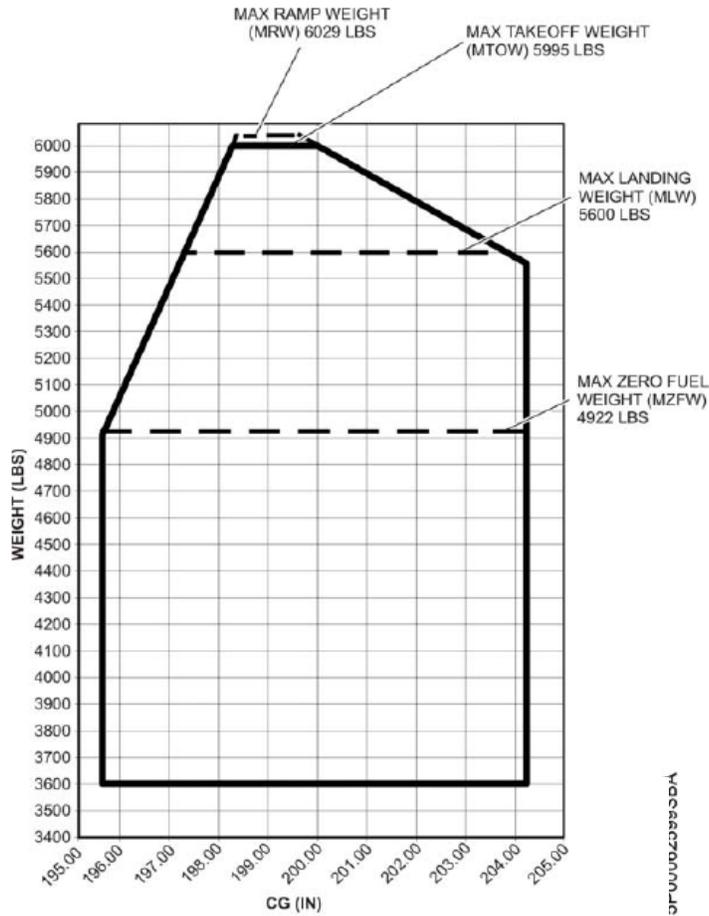
## Engine Limits

	N1(%)	N2(%)	MAX ITT (°C)	Time Limit
Maximum Take-off	102	100	795	5 minutes
Max. Continuous	102	100	795	Continuous
APR	102	100	795	10 minutes
Transient	103	102	850	20 seconds

## Airspeed Limits

$V_o$	Maximum Operating Maneuvering Speed	180 KEAS
$V_{MO}$	Maximum Operating Airspeed	285 KEAS
$M_{MO}$	Maximum Operating Mach	0.64 M
$V_{FE}$ (Flap T/O)	Maximum Flap Extended Speed	200 KEAS
$V_{FE}$ (Flap LDG)	Maximum Flap Extended Speed	120 KEAS
$V_{LO}$	Maximum Landing Gear Operating Speed	200 KEAS
$V_{LE}$	Maximum Landing Gear Extended Speed	285 KEAS
	Maximum tire ground speed	139 KNOTS

Center of Gravity (C.G.) Range



Forward limits: 195.65 inches aft of datum up to 4,922 lbs with a straight line taper to 197.91 inches at 5,995 lbs.

Aft Limits: 204.37 inches aft of datum up to 5,461 lbs with a straight line taper to 199.74 inches at 5,995 lbs.

Empty Weight. C.G. Range None.

Maximum Weights	Max. Ramp	6,029 lbs
	Max. Takeoff	5,995 lbs
	Max. Landing	5,600 lbs
	Max. Zero Fuel	4,922 lbs

Minimum Crew 1 Pilot plus required equipment as specified in the FAA Approved Airplane Flight Manual (AFM)

Number of Seats 6 Max (Includes pilot and crew); Refer to the FAA Approved Airplane Flight Manual (AFM), Document No. 06-121654, revision 1, dated January 28, 2008 or earlier FAA approved revision, Section 6 for seat configurations and moment arms.

Maximum Compartments Weights 260 lbs; 1 compartment, moment arm 217.92 inches aft of datum  
 Baggage Compartment floor loading is 100 lb/ft<sup>2</sup>  
 Cabin floor loading is 80 lb/ft<sup>2</sup>

Fuel Capacity	254.4 gallons (USG) total; 250.9 gallons (USG) usable; 3.5 gallons (USG) unusable Moment arm 198 inches aft of datum
Oil Capacity	6.088 quarts (USQ) total per engine; 0.832 quarts (USQ) usable per engine
Maximum Operating Altitude	Takeoff 10,000 ft MSL Operating 41,000 ft MSL

## Control Surface Movements

Elevator	UP	$25^{\circ} \pm 0.5^{\circ}$	DOWN	$15^{\circ} \pm 0.5^{\circ}$
Elevator Trim Tab	UP	$4.1^{\circ} \pm 0.5^{\circ}$	DOWN	$20.0^{\circ} \pm 0.5^{\circ}$
Ailerons	UP	$15.5^{\circ} + 0.5^{\circ} / -0.2^{\circ}$	DOWN	$11.6^{\circ} + 0.5^{\circ} / -0.2^{\circ}$
Aileron Trim	UP	$5.4^{\circ} \pm 0.3^{\circ}$	DOWN	$4.8^{\circ} \pm 0.3^{\circ}$
Rudder	LEFT	$30^{\circ} \pm 0.5^{\circ}$	RIGHT	$30^{\circ} \pm 0.5^{\circ}$
Rudder Trim Tab	LEFT	$20.0^{\circ} \pm 1.0^{\circ}$	RIGHT	$20.0^{\circ} \pm 1.0^{\circ}$
Flaps	Cruise	$0^{\circ} \pm 0.5^{\circ}$		
	Takeoff	$16.8^{\circ} \pm 0.5^{\circ}$		
	Landing	$33.8^{\circ} \pm 1.0^{\circ}$		

**For serial numbers 000105-000112, 000116-000119, 000121-000122, 000125-260 and serial numbers 000001-000038 which incorporate Eclipse Aviation FAA/DER approved Service Bulletin, SB 500-99-001 and SB 500-99-002 and serial numbers 000039-000104, 000113-000115, 000120, 000123-000124, which incorporate Eclipse Aviation FAA/DER Service Bulletin, SB 500-99-002.**

Engines Two Pratt & Whitney Canada PW610F-A,  
Type Certificate Data Sheet (TCDS) E00074EN

Fuel JET A and Jet A-1 per ASTM D 1655; JP-8 per MIL-T-83133

Fuels not containing icing inhibitors must have MIL-I-27686, MIL-I-85470, or Phillips PFA-55MB fuel system icing inhibitors blended into the aircraft fuel at concentrations not less than 0.10% but no more than 0.15% by volume. The minimum fuel icing inhibitor content during refueling is 0.10% by volume.

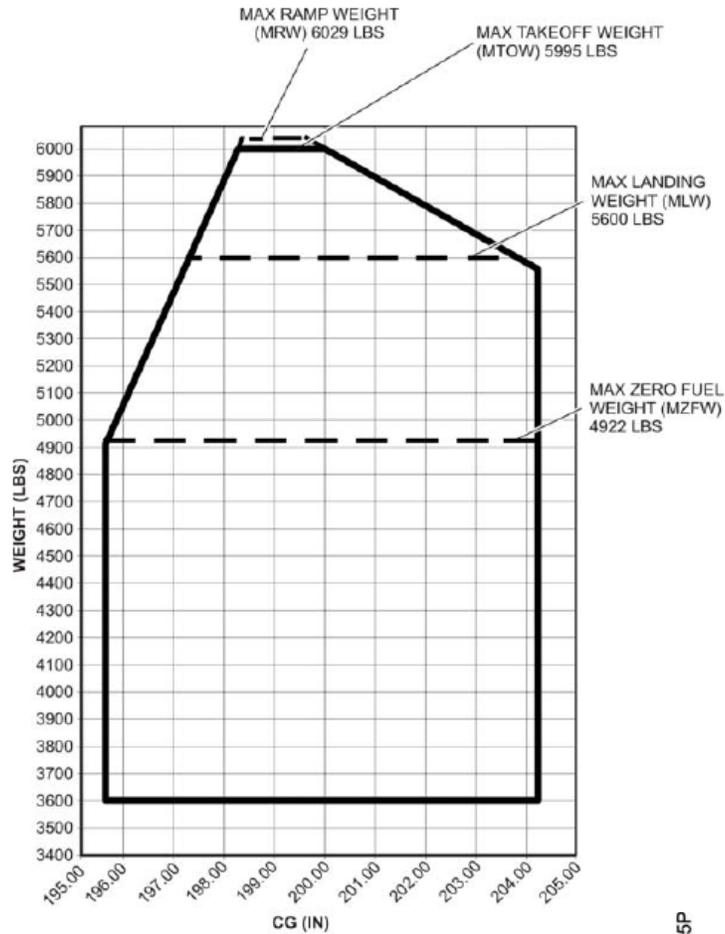
## Engine Limits

	N1(%)	N2(%)	MAX ITT (°C)	Time Limit
Maximum Take-off	102	100	795	5 minutes
Max. Continuous	102	100	795	Continuous
APR	102	100	795	10 minutes
Transient	103	102	850	20 seconds

## Airspeed Limits

$V_o$	Maximum Operating Maneuvering Speed	180 KEAS
$V_{MO}$	Maximum Operating Airspeed	285 KEAS
$M_{MO}$	Maximum Operating Mach	0.64 M
$V_{FE}$ (Flap T/O)	Maximum Flap Extended Speed	200 KEAS
$V_{FE}$ (Flap LDG)	Maximum Flap Extended Speed	120 KEAS
$V_{LO}$	Maximum Landing Gear Operating Speed	200 KEAS
$V_{LE}$	Maximum Landing Gear Extended Speed	285 KEAS
	Maximum tire ground speed	139 KNOTS

Center of Gravity (C.G.) Range



Forward limits: 195.65 inches aft of datum up to 4,922 lbs with a straight line taper to 197.91 inches at 5,995 lbs.

Aft Limits: 204.37 inches aft of datum up to 5,461 lbs with a straight line taper to 199.74 inches at 5,995 lbs.

Empty Weight. C.G. Range None.

Maximum Weights	Max. Ramp	6,029 lbs
	Max. Takeoff	5,995 lbs
	Max. Landing	5,600 lbs
	Max. Zero Fuel	4,922 lbs

Minimum Crew 1 Pilot plus required equipment as specified in the FAA Approved Airplane Flight Manual (AFM)

Number of Seats 6 Max (Includes pilot and crew); Refer to the FAA Approved Airplane Flight Manual (AFM), Document No. 06-122204, revision 1, dated June 25, 2008 or earlier FAA approved revision, Section 6 for seat configurations and moment arms.

Maximum Compartments Weights 260 lbs; 1 compartment, moment arm 217.92 inches aft of datum  
 Baggage Compartment floor loading is 100 lb/ft<sup>2</sup>  
 Cabin floor loading is 80 lb/ft<sup>2</sup>

Fuel Capacity	254.4 gallons (USG) total; 250.9 gallons (USG) usable; 3.5 gallons (USG) unusable Moment arm 198 inches aft of datum			
Oil Capacity	6.088 quarts (USQ) total per engine; 0.832 quarts (USQ) usable per engine			
Maximum Operating Altitude	Takeoff 10,000 ft MSL Operating 41,000 ft MSL			
Control Surface Movements				
	Elevator	UP	25°± 0.5°	DOWN 15°± 0.5°
	Elevator Trim			
	Tab	UP	4.1° ± 0.5°	DOWN 20.0° ± 0.5°
	Ailerons	UP	15.5° + 0.5°/-0.2°	DOWN 11.6°+ 0.5°/-0.2°
	Aileron Trim	UP	5.4° ± 0.3°	DOWN 4.8° ± 0.3°
	Rudder	LEFT	30° ± 0.5°	RIGHT 30° ± 0.5°
	Rudder Trim			
	Tab	LEFT	20.0° ± 1.0°	RIGHT 20.0° ± 1.0°
	Flaps	Cruise	0° ± 0.5°	
		Takeoff	16.8° ± 0.5°	
		Landing	33.8° ± 1.0°	

**For serial numbers 000105-000112, 000116-000119, 000121-000122, 000125-206 and serial numbers 000001-000038 which incorporate Eclipse Aviation FAA/DER approved Service Bulletin, SB 500-99-001, SB 500-99-002, SB 500-99-004 and SB 500-99-005 and serial numbers 000039-000104, 000113-000115, 000120, 000123-00124, which incorporate Eclipse Aviation FAA/DER Service Bulletin, SB 500-99-002, SB 500-99-004 and SB 500-99-005.**

Engines Two Pratt & Whitney Canada PW610F-A,  
Type Certificate Data Sheet (TCDS) E00074EN

Fuel JET A and Jet A-1 per ASTM D 1655; JP-8 per MIL-T-83133

Fuels not containing icing inhibitors must have MIL-I-27686, MIL-I-85470, or Phillips PFA-55MB fuel system icing inhibitors blended into the aircraft fuel at concentrations not less than 0.10% but no more than 0.15% by volume. The minimum fuel icing inhibitor content during refueling is 0.10% by volume.

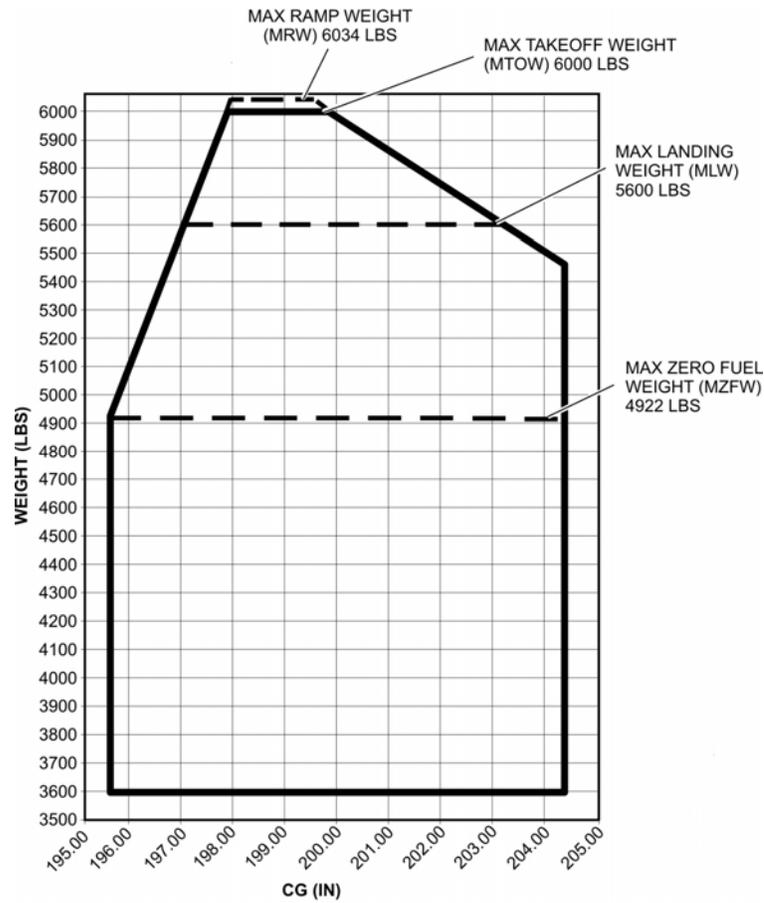
#### Engine Limits

	N1(%)	N2(%)	MAX ITT (°C)	Time Limit
Maximum Take-off	102	100	795	5 minutes
Max. Continuous	102	100	795	Continuous
APR	102	100	795	10 minutes
Transient	103	102	850	20 seconds

#### Airspeed Limits

V <sub>o</sub>	Maximum Operating Maneuvering Speed	180 KEAS
V <sub>MO</sub>	Maximum Operating Airspeed	285 KEAS
M <sub>MO</sub>	Maximum Operating Mach	0.64 M
V <sub>FE</sub> (Flap T/O)	Maximum Flap Extended Speed	200 KEAS
V <sub>FE</sub> (Flap LDG)	Maximum Flap Extended Speed	140 KEAS
V <sub>LO</sub>	Maximum Landing Gear Operating Speed	200 KEAS
V <sub>LE</sub>	Maximum Landing Gear Extended Speed	285 KEAS
Maximum Tire Ground Speed		139 KNOTS
Minimum Airspeed in Icing Conditions		165 KEAS

Center of Gravity (C.G.) Range



Forward limits: 195.65 inches aft of datum up to 4,922 lbs with a straight line taper to 197.91 inches at 6,000 lbs.

Aft Limits: 204.37 inches aft of datum up to 5,461 lbs with a straight line taper to 199.70 inches at 6,000 lbs.

Empty Weight. C.G. Range None.

Maximum Weights	Max. Ramp	6,034 lbs
	Max. Takeoff	6,000 lbs
	Max. Landing	5,600 lbs
	Max. Zero Fuel	4,922 lbs

Minimum Crew 1 Pilot plus required equipment as specified in the FAA Approved Airplane Flight Manual (AFM)

Number of Seats 6 Max (Includes pilot and crew); Refer to the FAA Approved Airplane Flight Manual (AFM), Document No. 06-122204, revision 2, dated November 7, 2008, Section 6 for seat configurations and moment arms.

Maximum Compartments Weights 260 lbs; 1 compartment, moment arm 217.92 inches aft of datum  
 Baggage Compartment floor loading is 100 lb/ft<sup>2</sup>  
 Cabin floor loading is 80 lb/ft<sup>2</sup>

Fuel Capacity 254.4 gallons (USG) total; 250.9 gallons (USG) usable;  
 3.5 gallons (USG) unusable  
 Moment arm 198 inches aft of datum

Oil Capacity 6.088 quarts (USQ) total per engine; 0.832 quarts (USQ) usable per engine

Maximum Operating Altitude Takeoff 10,000 ft MSL  
Operating 41,000 ft MSL

Control Surface Movements

Elevator	UP	25° ± 0.5°	DOWN	15° ± 0.5°
Elevator Trim Tab	UP	4.1° ± 0.5°	DOWN	20.0° ± 0.5°
Ailerons	UP	15.5° + 0.5°/-0.2°	DOWN	11.6° + 0.5°/-0.2°
Aileron Trim	UP	5.4° ± 0.3°	DOWN	4.8° ± 0.3°
Rudder	LEFT	30° ± 0.5°	RIGHT	30° ± 0.5°
Rudder Trim Tab	LEFT	20.0° ± 1.0°	RIGHT	20.0° ± 1.0°
Flaps	Cruise	0° ± 0.5°		
	Takeoff	16.8° ± 0.5°		
	Landing	33.8° ± 1.0°		

**Data Pertinent to All Effectivities**

Datum Is located 23.25 inches forward of the nose radome.

Leveling Means Laterally: Forward edge of the baggage compartment floor  
Longitudinally: Left hand out board seat track in front of the main cabin door

Certification Basis 14 CFR Part 23 through Amendment 55, Part 34 through Amendment 34-3, and Part 36 through Amendment 36-26.

Special Conditions:

23-128-SC for Engine Fire Extinguishing System

23-121-SC for Electronic Engine Control System

23-112A-SC for High Intensity Radiated Fields (HIRF) Protection

Equivalent Levels of Safety Findings:

ACE-02-19: 14 CFR §§ 23.777(d) and 23.781 Fuel Cutoff Control

ACE-05-32: 14 CFR §§ 23.1545(a) and 23.1581(d) for Indicated Airspeeds

ACE-05-34: 14 CFR §23.181(b), Dynamic Stability

ACE-05-35: 14 CFR §23.1353(h), Storage Battery Design and Installation

ACE-05-36: 14 CFR §23.1323(c), Airspeed Indicating System

ACE-06-01: 14 CFR § 23.1545(b)(4), Airspeed Indicator

ACE-06-05: 14 CFR 23, Appendix H, § H23.5, Installation of an Automatic Power Reserve System

ACE-07-04: 14 CFR § 23.1545(b)(4), Airspeed Indicator

ACE-08-12, 14 CFR §§ 23.201(b)(2) Wings Level Stall, and 23.203(a), Turning Flight and Accelerated Turning Stalls for flight into known icing (FIKI)

Exemptions:

None

**Icing Approval: For serial numbers 000105-000112, 000116-000119, 000121-000122, 000125-260 and serial numbers 000001-000038 which incorporate Eclipse Aviation FAA/DER approved Service Bulletin, SB 500-99-001, SB 500-99-002, SB 500-99-004 and SB 500-99-005 and serial numbers 000039-000104, 000113-000115, 000120, 000123-00124, which incorporate Eclipse Aviation FAA/DER Service Bulletin, SB 500-99-002, SB 500-99-004 and SB 500-99-005 are approved for flight into known or forecast icing.**

Compliance with ditching provision have not been met for issuance of a Type Certificate.

Type Certificate: A00002AC, issued September 30, 2006

Date of application: July 12, 2001

Model EA500 is defined by Eclipse Aviation drawing 06-102100-1002, FAA approved as of February 13, 2009.

Production Basis	The following Serial Numbers were produced under Type Certificate only: 000001 through 000011. Serial Numbers 000012 through 000260 were produced under Production Certificate No. 500 issued April 26, 2007.
Serial Numbers:	Aircraft Serial Numbers 000001 thru 000260 manufactured by Eclipse Aviation Corporation are eligible.
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

#### NOTES

Note 1	A current weight and balance report, including a list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.
Note 2	The Eclipse EA500 must be operated according to the FAA approved Airplane Flight Manual (AFM), Document No. 06-100106, revision 4, dated December 13, 2007 or earlier FAA approved revision or 06-121654, revision 1, dated January 28, 2008 or FAA approved revision, or 06-122204, revision 2, dated November 7, 2008 or earlier FAA approved revision.
Note 3	FAA approved Airworthiness Limitations for inspection time limits and maintenance checks are included in Chapter 4 of the Aircraft Maintenance Manual (AMM) Document No. 06-117751, revision 16, dated January 2009, or earlier FAA approved revision.
Note 4	The Eclipse EA500 is Aircraft Group approved for Reduced Vertical Separation Minimum (RVSM). All airplanes are equipped with RVSM capable dual air data system, pilot and co-pilot Primary Flight Displays, and Autopilot.  Each operator must obtain RVSM operating approval.
Note 5	The Eclipse EA500 incorporates integrated avionics systems using software-based line replaceable units (LRU's) which share a digital signal transmission bus. The avionics configuration of the Eclipse EA500 as delivered from production is critical to the proper operation of the cockpit instrumentation system. Modification to the LRU software supplied with the Eclipse EA500, replacement of an LRU with a different LRU, addition of new LRU, or alteration of an LRU interface could adversely affect the airworthiness of the certified product. Accordingly, no changes to the integrated avionics system may be made without coordination with the Certificate Management Aircraft Certification Office.
Note 6	The Eclipse EA500 shall be maintained according to: Aircraft Maintenance Manual (AMM), No. 06-117751, revision 16, dated January, 2009 or FAA earlier revision Structural Repair Manual (SRM), No. 06-117755, revision 3, dated January 2009 or earlier FAA approved revision

Wiring Diagram Manual (WDM), No. 06-117753, revision 6, dated December 2008 or earlier FAA approved revision  
Fault Isolation Manual, No. 06-117754, revision 3, dated August 2008, or earlier FAA approved revision

Note 7

Any modification or changes in cockpit configuration which may affect aircrew workload, cockpit noise level or day/night operational capabilities must be evaluated by an FAA Aircraft Certification Flight Test Pilot.

Note 8

All pilots operating a U.S. registered Eclipse Aviation EA500 must be trained and qualified in accordance with the FAA Accepted/Approved Eclipse Aviation training program or equivalent FAA Accepted/Approved training program.

All pilots operating an Eclipse Aviation EA500 that is non-US registered must be trained and qualified in accordance with the Eclipse Aviation training program or equivalent training program that is Accepted/Approved by the Civil Aviation Authority having jurisdiction.

.....END.....