DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A21EA-1
Revision No. 3
MHI RJ Aviation ULC
CL-600-2B19 (Regional Jet Series 100 & 440)
CL-600-2C10 (Regional Jet Series 700, 701 & 702)
CL-600-2C11 (Regional Jet Series 550)
CL-600-2D15 (Regional Jet Series 705)
CL-600-2D24 (Regional Jet Series 900)
CL-600-2E25 (Regional Jet Series 1000)

April 8, 2021

TYPE CERTIFICATE DATA SHEET NO. A21EA-1

This data sheet, which is part of Type Certificate No. A21EA-1 (originally certified under Type certificate No. A21EA), prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: MHI RJ Aviation ULC
12655 Boul. Henri-Fabre O
Mirabel, Québec, Canada
J7N 1E1

Type Certificate Holder Record: Bombardier Inc.
800 boul. René Lévesque West
Montreal, Quebec, Canada
H3B1Y8

I - Model CL-600-2B19 (Regional Jet Series 100) (Transport Category), Approved January 21, 1993, by the FAA and July 31, 1992, by Transport Canada. (See Note 8)

Model CL-600-2B19 (Regional Jet Series 440) (Transport Category), Approved November 30, 2001, by the FAA and October 4, 2001, by Transport Canada.

Engines: Two General Electric CF-34-3A1 or
Two General Electric CF-34-3B1
Engines may be intermixed in accordance with AFM as listed in Approved Publications.

Fuel

Type	Specifications					
	Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-2006 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34
Jet B	CAN2-3.22	ASTM D6615	D. Eng. RD2486	-	-	-
Grade JP-4	CAN2-3.22	MIL-DTL-5624	D. Eng. RD2454	-	-	-

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil: Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits — Fan RPM — Core RPM — ITT — Time Limit

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Rev No.	3	IR	IR	IR	IR	IR	IR	IR	IR	IR	IR	2	IR	IR	IR	IR	IR	IR	IR	IR
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Rev No.	IR	IR	3	2	2															
Page No.																				
Rev No.																				

	%N1	%N2	°C	°F	(Min)
Max. takeoff (APR operating)	98.6	99.4	900	1650	5***
			928	1702	2*
Normal takeoff	96.2	98.2	884	1623	5***
	-		900	1650	2*
Max. Continuous	98.6	99.2	860/874 (3A1/3B1)	1580/1605 (3A1/3B1)	-
Idle Range	-	56.5 to 68.0**	-	-	-
Acceleration	-	-	900	1652	-
Starting	-	20.0	900	1652	-

* 2 minutes out of 5 total transient.
** Refer to Idle Speed Limit Chart in the AFM
If N_2 idle RPM is more than 2% lower, do not advance thrust lever above 70% N_2 until N_2 idle RPM has stabilized to within normal limits.
*** Transient limits.
NOTE: Above 40000 feet, one air conditioning unit or cowl anti-ice must be selected on for each engine

Oil Temperature

	°C	°F
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure

Maximum Transient (after cold start)	156 psi (130 psi at idle, 10 minutes maximum)*
Maximum Continuous	115 psi maximum
Take-off Power	45 psi minimum
Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal range.

APU GARRETT GTCP-36-150RJ

APU Limits

Maximum RPM	107%	
Maximum EGT:	°C	°F
Starting	974	1785*
Running	743	1369

* Not to be exceeded under any operating condition.

Airspeed Limits (CAS)

V_{mo} and M_{mo} (maximum operating)		m.p.h.	Knots	Mach
Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 41000 ft.		-	-	0.85
V_{fe} (Flaps extended)	8°	265	230	-
	20°	265	230	-
	30°	226	196	-
	45°	220	191	-
V_a (maneuvering)				
(See AFM for variation of V_a with altitude and aircraft weight).				
V_{1o} (Landing Gear Operation)				
Extending		288	250	-
Retracting		230	200	-
V_{1e} (Landing Gear Extended)		288	250	-

C.G. Range Refer to AFM (CSP A-012) for detail CG limits.

Datum Fuselage station 0, located 375 inches forward of weighing datum jig point.

Mean Aerodynamic Chord (MAC) 99.43 inches (MAC leading edge at fuselage sta. 494.793)

Leveling Means — Target plate and plumb bob bracket within rear fuselage, at fuselage station 718.75.

Maximum Weights

	Type Spec. lb.	Option lb.	Option lb.	Option lb.	Option lb.	Option lb.
Ramp	47700	51250	51250	53250	53250	53250
Takeoff	47450	51000	51000	53000	53000	53000
Landing	44700	46750	47000	46750	47000	47000
Zero Fuel	42200	44000	44000	44000	44000	39500
Minimum flight weight	30000	30000	30000	30000	30000	30000

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations (refer to Airplane Flight Manual).

Minimum Crew — Two (Pilot and Co-pilot)

Maximum Occupants
Series 100 - Fifty-five (55) (including 50 passengers, 4 crew, and 1 flight observer)
Series 440 - Forty-Nine (49) (including 44 passengers, 4 crew, and 1 flight observer)

CL-600-2B19 Green Aircraft Configuration
Refer to NOTE 4 & 5.

Fuel Capacity (usable)

	Load* U.S. Gal.	Load* Imp. Gal.	Weight* Kg.	Weight* lb.
2 main tanks (each)	700.0	582.8	2159	4760
Center tank	735.0	612.0	2267	4998
Total	2135.0	1669.6	6585	14518

* Pressure refueling (based on 0.8028 kg/L)

Oil Capacity

	Load U.S. Gal.	Load Imp. Gal.	Weight Kg.	Weight lb.
2 Engines (each)	1.70	1.42	5.94	13.09
Total	3.40	2.84	11.88	26.18
Usable				
2 Engines (each)	1.38	1.14	4.80	10.59
Total	2.76	2.29	9.60	21.18

Maximum Operating Altitude — Takeoff and landing: 10000 ft.; En route: 41000 ft.

Control Surface Movements

Rudder		33º Left*	33º Right
Elevator		23.6º Up	18.4º Down
Horizontal Stabilizer		2º LE Up	-13º LE Down
Aileron		25º Up	21.3º Down
Flap	– Inboard		45.09º Down
	– Outboard		41.58º Down
Flight Spoiler		50º Up	
Ground Spoiler		45º Up	
Spoileron		50º Up	

*Rudder deflections of 33º left and 33º right apply when CF-34-3A1 engines are installed.
*Rudder deflections of 25º left and 25º right apply when optional CF-34-3B1 engines are installed.

Serial Numbers Eligible — 7001 and subsequent

Service Information — Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only. For all weather flight capability, refer to Note 7.

II - Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) (Transport Category), Approved February 16, 2001, by the FAA and December 22, 2000 by Transport Canada.

Engines

Two General Electric CF-34-8C1, or
Two General Electric CF-34-8C5B1
Engines may be intermixed in accordance with AFM as listed in Approved publications

Fuel

Type	Specifications					
	Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-2006 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil

Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits

Refer to Limits Table in the AFM (CSP B-012)

Oil Temperature

	°C	°F
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure

Maximum Transient (after cold start)	156 psi (130 psi at idle, 10 minutes maximum)*
Maximum Continuous	45-116 psi
Take-off Power	45-116 psi
Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal operating range.

APU

ALLIED SIGNAL RE220 (RJ)

APU Limits

Maximum RPM	106%		
Maximum EGT:	°C	°F	
Starting	692-1038	1274-1900*	
Running - Ground	789	1452	
Running - Flight	806	1482	

* Dependent upon altitude and temperature. Refer to AFM (CSP B-012)
** Not to be exceeded under any operating condition.
*** Refer to AFM for detail limitations

Airspeed Limits (CAS)

V_{mo} and M_{mo} (maximum operating)		m.p.h.	Knots	Mach
Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 41000 ft.		-	-	0.85
V_{fe} (Flaps extended)	1°	265	230	-
	8°	265	230	-
	20°	265	230	-
	30°	213	185	-
	45°	196	170	-
V_a (maneuvering)				
(See AFM for variation of V_a with altitude and aircraft weight).				
V_{1o} (Landing Gear Operation)				
	Extending	253	220	-
	Retracting	230	200	-

	V_{1e} (Landing Gear Extended)	253	220	-

C.G. Range — Refer to AFM (CSP B-012) for detail CG limits.

Datum — Fuselage station 0, located 144.0 inches forward of aircraft nose.

Mean Aerodynamic Chord (MAC) — 133.185 inches (MAC leading edge at fuselage sta. 743.1)

Leveling Means — Target plate and plumb bob bracket within rear fuselage, at fuselage station 1145.75

Maximum Weights

	Type Spec. lb.	Option lb.
Ramp	73000	75250
Takeoff	72750	75000
Landing	67000	67000
Zero Fuel	62300	62300
Minimum flight weight	42000	42000

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew — Two (Pilot and Co-pilot)

Maximum Occupants** — Series 700 – 68 or less passengers
Series 701 – 70 passengers
Series 702 – 78 passengers
Plus 5 crew-members (Pilot, Copilot, Observer forward and Aft Flight attendants)
** For any CL-600-2C10, the maximum passenger capacity may be further limited by the Equivalent Safety Finding against FAR 25.801 and 25.813 (see Note 13).

Fuel Capacity (usable)

	Load* U.S. Gal.	Load* Imp. Gal.	Weight* Kg.	Weight* lb.
2 main tanks (each)	1110	924.1	3399	7493
Center tank	683	568.6	2091	4610
Total	2903	2416.7	8889	19596

See Note 1(b) for system fuel
* Pressure refueling (based on 0.809 kg/L) (6.75 lb./U.S. Gal.)

Oil Capacity — With option TS670-79-201 – Engine Oil – No Remote Replenishment System

	Load U.S. Gal.	Load Imp. Gal.	Weight Kg.	Weight lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Total	5.2	4.36	19.30	42.4

See Note 1(c) for system oil

With option CR670-79-201 – Engine Oil – Remote Replenishment System

	Load U.S. Gal.	Load Imp. Gal.	Weight Kg.	Weight lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Replenishment Tank	1.6	1.3	5.9	13.0
Total	6.8	5.7	25.2	55.4

See Note 1(c) for system oil

Maximum Operating Altitude — Takeoff and landing: 8000ft (without Modsum 670T82357)
9600ft (with Modsum 670T82357)
En route: 41000 ft.

Control Surface Movements

Rudder		33º Left*	33º Right
Elevator		23.6º Up	18.4º Down
Horizontal Stabilizer		2.0º LE Up	13.0º LE Down
Aileron		25.1º Up	21.3º Down
Flap	– Inboard		45.0º Down

	– Outboard		41.6º Down
	Multi-Function Spoiler	48.0º Up	
	Ground Spoiler	44.9º Up	
	Slat		25.0º Down

Serial Numbers Eligible 10002 and subsequent

Service Information Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

III - Model CL-600-2C11 (Regional Jet Series 550) (Transport Category), Approved September 18, 2019, by the FAA and July 5, 2019 byTransport Canada. (See NOTE 16)

Engines Two General Electric CF-34-8C1, or
Two General Electric CF-34-8C5B1
Engines may be intermixed in accordance with AFM as listed in Approved publications

Fuel

Type	Specifications					
	Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-2006 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits Refer to Limits Table in the AFM (CSP B-012)

Oil Temperature

	°C	°F
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure

Maximum Transient (after cold start)	156 psi (130 psi at idle, 10 minutes maximum)*
Maximum Continuous	45-116 psi
Take-off Power	45-116 psi
Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal operating range.

APU ALLIED SIGNAL RE220 (RJ)

APU Limits

Maximum RPM	106%	
Maximum EGT:	°C	°F
Starting	692-1038	1274-1900*
Running - Ground	789	1452
Running - Flight	806	1482

* Dependent upon altitude and temperature. Refer to AFM (CSP B-012)
** Not to be exceeded under any operating condition.
*** Refer to AFM for detail limitations

Airspeed Limits (CAS)

	m.p.h.	Knots	Mach
V_{mo} and M_{mo} (maximum operating)			

Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 41000 ft.		-	-	0.85
V_{fe} (Flaps extended)	1°	265	230	-
	8°	265	230	-
	20°	265	230	-
	30°	213	185	-
	45°	196	170	-
V_a (maneuvering)				
(See AFM for variation of V_a with altitude and aircraft weight).				
V_{1o} (Landing Gear Operation)				
Extending		253	220	-
Retracting		230	200	-
V_{1e} (Landing Gear Extended)		253	220	-

C.G. Range

Refer to AFM (CSP B-012) for detail CG limits.

Datum

Fuselage station 0, located 144.0 inches forward of aircraft nose.

Mean Aerodynamic Chord (MAC)

133.185 inches (MAC leading edge at fuselage sta. 743.1)

Leveling Means

Target plate and plumb bob bracket within rear fuselage, at fuselage station 1145.75

Maximum Weights

	Type Spec. lb.
Ramp	66000
Takeoff	65000
Landing	61000
Zero Fuel	59000
Minimum flight weight	42000

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew

Two (Pilot and Co-pilot)

Maximum Occupants

50 or less passengers, when fitted with an approved interior
Plus 5 crew-members (Pilot, Copilot, Observer, Forward and Aft Flight attendants)

Fuel Capacity (usable)

	Load*		Weight*	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 main tanks (each)	1110	924.1	3399	7493
Center tank	683	568.6	2091	4610
Total	2903	2416.7	8889	19596

See Note 1(b) for system fuel
* Pressure refueling (based on 0.809 kg/L) (6.75 lb./U.S. Gal.)

Oil Capacity

With option TS670-79-201 – Engine Oil – No Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Total	5.2	4.36	19.30	42.4

See Note 1(c) for system oil

With option CR670-79-201 – Engine Oil – Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Replenishment Tank	1.6	1.3	5.9	13.0

	Total See Note 1(c) for system oil	6.8	5.7	25.2	55.4

Maximum Operating Altitude	Takeoff and landing:	8000ft (without Modsum 670T82357) 9600ft (with Modsum 670T82357)		
	En route:	41000 ft.		
Control Surface Movements	Rudder		33º Left*	33º Right
	Elevator		23.6º Up	18.4º Down
	Horizontal Stabilizer		2.0º LE Up	13.0º LE Down
	Aileron		25.1º Up	21.3º Down
	Flap	– Inboard		45.0º Down
		– Outboard		41.6º Down
	Multi-Function Spoiler		48.0º Up	
	Ground Spoiler		44.9º Up	
	Slat			25.0º Down

Serial Numbers Eligible 10002 and subsequent

Service Information Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

IV – Model CL-600-2D15 (Regional Jet Series 705) (Transport Category), Approved May 4, 2005, by the FAA and May 3, 2005 by Transport Canada.

Engines Two General Electric CF34-8C5 or
optional CF34-8C5A1
TC No. E00063EN

Fuel

Type	Specifications					
	Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-2006 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits Refer to Limits Table in the AFM (CSP C-012)

Oil Temperature

	ºC	ºF
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure		
	Maximum Transient (after cold start)	182 psi (95 psi after 10 minutes)
	Maximum Continuous	45-95 psi
	Take-off Power	45-95 psi
	Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal operating range.

APU ALLIED SIGNAL RE220 (RJ)

APU Limits

Maximum RPM 106%

Maximum EGT:	°C	°F
Starting	692-1038	1274-1900*
Running - Ground	789	1452
Running - Flight	806	1482

* Dependent upon altitude and temperature. Refer to AFM (CSP C-012)
** Not to be exceeded under any operating condition.
*** Refer to AFM for detail limitations

Airspeed Limits (CAS)

V_{mo} and M_{mo} (maximum operating)		m.p.h.	Knots	Mach
Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 34000 ft.		-	-	0.85
34000 ft. to 41000 ft.		-	-	0.84
V_{fe} (Flaps extended)	1°	265	230	-
	8°	265	230	-
	20°	253	220	-
	30°	213	185	-
	45°	196	170	-
V_a (maneuvering)				
(See AFM for variation of V_a with altitude and aircraft weight).				
V_{1o} (Landing Gear Operation)				
Extending		253	220	-
Retracting		230	200	-
V_{1e} (Landing Gear Extended)		253	220	-

C.G. Range

Refer to AFM (CSP C-012) for detail CG limits.

Datum

Fuselage station 0, located 144.0 inches forward of aircraft nose.

Mean Aerodynamic Chord (MAC)

133.185 inches (MAC leading edge at fuselage sta. 833.1 inches)

Leveling Means

Target plate and plumb bob bracket within rear fuselage, at fuselage station 1146.75

Maximum Weights

	Type Spec. lb.	Option lb.	Option lb.
Ramp	80750	82750	85000
Takeoff	80500	82500	84500
Landing	73500	73500	75100
Zero Fuel	70000	70000	70750
Minimum flight weight	45000	45000	45000

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew

Two (Pilot and Co-pilot)

Maximum Occupants

75 or less passengers
Plus 5 crew-members (Pilot, Copilot, Observer, Forward and Aft Flight attendants)

Fuel Capacity (usable)

	Load*		Weight*	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 main tanks (each)	1110	924.1	3398	7492
Center tank	683	568.6	2091	4610
Total	2903	2416.7	8888	19595

See Note 1(b) for system fuel
* Pressure refueling (based on 0.809 kg/L) (6.75 lb./U.S. Gal.)

Oil Capacity

With option TS670-79-201 – Engine Oil – No Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Total	5.2	4.36	19.3	42.4

See Note 1(c) for system oil

With option CR670-79-201 – Engine Oil – Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Replenishment Tank	1.6	1.3	5.9	13.0
Total	6.8	5.7	25.2	55.4

See Note 1(c) for system oil

Maximum Operating Altitude

Takeoff and landing: 8000ft (without Modsum 670T82357)
9600ft (with Modsum 670T82357)

En route: 41000 ft.

Control Surface Movements

Rudder		33º Left	33º Right
Elevator		23.6º Up	18.4º Down
Horizontal Stabilizer		2.0º LE Up	13º LE Down
Aileron		25.1º Up	21.3º Down
Flap	– Inboard		45.0 º Down
	– Outboard		41.6º Down
Multi-Function Spoiler		48.0º Up	
Ground Spoiler		44.9º Up	
Slat			25.0º Down

Serial Numbers Eligible

15001 and subsequent

Service Information

Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

V – Model CL-600-2D24 (Regional Jet Series 900) (Transport Category), Approved October 25,-2002, by the FAA and September 9, 2002 by Transport Canada.

Engines

Two General Electric CF34-8C5 or
optional CF34-8C5A1
TC No. E00063EN

Fuel

Type	Specifications					
	Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-2006 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil

Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits — Refer to Limits Table in the AFM (CSP C-012)

Oil Temperature

	°C	°F
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure

Maximum Transient (after cold start)	182 psi (95 psi after 10 minutes)
Maximum Continuous	45-95 psi
Take-off Power	45-95 psi
Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal operating range.

APU — ALLIED SIGNAL RE220 (RJ)

APU Limits

Maximum RPM		106%	
Maximum EGT:		°C	°F
Starting		692-1038	1274-1900
Running – Ground*		789	1452
Running – Flight*		806	1482

* Dependent upon altitude and temperature. Refer to AFM (CSP C-012)
** Not to be exceeded under any operating condition.
*** Refer to AFM for detail limitations

Airspeed Limits (CAS)

V_{mo} and M_{mo} (maximum operating)		m.p.h.	Knots	Mach
Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 34000 ft.		-	-	0.85
34000 ft. to 41000 ft.		-	-	0.85
34000 ft. to 41000 ft.		-	-	0.84*
V_{fe} (Flaps extended)	1°	265	230	-
	8°	265	230	-
	20°	253	220	-
	30°	213	185	-
	45°	196	170	-
V_a (maneuvering)				
V_{1o} (Landing Gear Operation)				
Extending		253	220	-
Retracting		230	200	-
V_{1e} (Landing Gear Extended)		253	220	-

(See AFM for variation of V_a with altitude and aircraft weight).

*with the incorporation of M/S 690T002727 – Introduction of new winglet

C.G. Range — Refer to AFM (CSP C-012) for detail CG limits.

Datum — Fuselage station 0, located 144.0 inches forward of aircraft nose.

Mean Aerodynamic Chord (MAC) — 133.185 inches (MAC leading edge at fuselage sta. 833.1 inches)

Leveling Means — Target plate and plumb bob bracket within rear fuselage, at fuselage station 1146.75

Maximum Weights

	Type Spec. lb.	Option lb.	Option lb.

Ramp	80750	82750	85000
Takeoff	80500	82500	84500
Landing	73500	73500	75100
Zero Fuel	70000	70000	70750
Minimum flight weight	45000	45000	45000

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew: Two (Pilot and Co-pilot)

Maximum Occupants**: 90 or less passengers
Plus 5 crew-members (Pilot, Copilot, Observer, Forward and Aft Flight attendants)

**For any CL-600-2D24, the maximum passenger capacity may be further limited (see Note 19).

Fuel Capacity (usable)

	Load*		Weight*	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 main tanks (each)	1110	924.1	3398	7492
Center tank	683	568.6	2091	4610
Total	2903	2416.7	8888	19595

See Note 1(b) for system fuel
* Pressure refueling (based on 0.809 kg/L) (6.75 lb./U.S. Gal.)

Oil Capacity

With option TS670-79-201 – Engine Oil – No Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Total	5.2	4.36	19.3	42.4

See Note 1(c) for system oil

With option CR670-79-201 – Engine Oil – Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Replenishment Tank	1.6	1.3	5.9	13.0
Total	6.8	5.7	25.2	55.4

See Note 1(c) for system oil

Maximum Operating Altitude

Takeoff and landing: 8000ft (without Modsum 670T82357)
9600ft (with Modsum 670T82357)
En route: 41000 ft.

Control Surface Movements

Rudder		33º Left	33º Right
Elevator		23.6º Up	18.4º Down
Horizontal Stabilizer		2.0º LE Up	13º LE Down
Aileron		25.1º Up	21.3º Down
Flap	– Inboard		45.0 º Down
	– Outboard		41.6º Down
Multi-Function Spoiler		48.0º Up	
Ground Spoiler		44.9º Up	
Slat			25.0º Down

Serial Numbers Eligible: 15001 and subsequent

Service Information: Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

VII – Model CL-600-2E25 (Regional Jet Series 1000) (Transport Category), Approved December 17, 2010 by the FAA and November 1, 2010 by Transport Canada.

Engines: Two General Electric CF34-8C5 or

optional CF34-8C5A1
optional CF34-8C5A2
TC No. E00063EN

Fuel

Type

Specifications					
Canada	U.S.A.	U.K.	China	CIS/Ukraine	NATO
Jet A	CGSB-3.23	ASTM D1655	-	-	-	-
Jet A-1	CGSB-3.23	ASTM D1655	DEF STAN 91-91	GB6537-94 No. 3 Jet	TS-1* or RT	F-35
Grade JP-5	CGSB-3.24	MIL-DTL-5624	DEF STAN 91-86	-	-	F-44
Grade JP-8	CGSB-3.24	MIL-DTL-83133	DEF STAN 91-87	-	-	F-34

*Refer to appropriate AFM listed in Approved Publication section when using TS-1.

Oil

Engine, APU and IDG:
MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or CASTROL 4000. *
* Mixing of different types of oils is prohibited.

Engine Limits

Refer to Limits Table in the AFM (CSP D-012)

Oil Temperature

	°C	°F
Maximum Permissible (15 minutes Maximum)	+163	325
Maximum Continuous	+155	311
Minimum for Starting	-40	-40

Oil Pressure

Maximum Transient (after cold start)	182 psi (95 psi after 10 minutes)
Maximum Continuous	45-95 psi
Take-off Power	45-95 psi
Steady State Idle	25 psi minimum

* Engine must remain at idle until oil pressure returns to normal operating range.

APU

ALLIED SIGNAL RE220 (RJ)

APU Limits

Maximum RPM	106%		
Maximum EGT:	°C	°F	
Starting	692-1038	1274-1900	
Running – Ground*	789	1452	
Running – Flight*	806	1482	

* Dependent upon altitude and temperature. Refer to AFM (CSP D-012)
** Not to be exceeded under any operating condition.
*** Refer to AFM for detail limitations

Airspeed Limits (CAS)

V_{mo} and M_{mo} (maximum operating)		m.p.h.	Knots	Mach
Sea Level to 8000 ft.		380	330	-
8000 ft. to 25400 ft.		386	335	-
25400 ft. to 28300 ft.		-	-	0.80
28300 ft. to 31400 ft.		362	315	-
31400 ft. to 41000 ft.		-	-	0.84
V_{fe} (Flaps extended)	1°	265	230	-
	8°	265	230	-
	20°	253	220	-
	30°	213	185	-
	45°	196	170	-

V_a (maneuvering)

(See AFM for variation of V_a with altitude and aircraft weight).

V_{1o} (Landing Gear Operation)

Extending	253	220	-
Retracting	230	200	-
V_{1e} (Landing Gear Extended)	253	220	-

C.G. Range — Refer to AFM (CSP D-012) for detail CG limits.

Datum — Xarm 0, located 144.0 inches forward of aircraft nose

Mean Aerodynamic Chord (MAC) — 137.020 inches (MAC leading edge at Xarm 900.257 inches)

Leveling Means — Target plate and plumb bob bracket within rear fuselage, at fuselage station 1146.75

Maximum Weights

	Type Spec. lb.	Option lb.	Option lb.	Option lb.	Option lb.
Ramp	90500	92300	88673	90878	86469
Takeoff	90000	91800	88173	90378	85969
Landing	81500				
Zero Fuel	77500				
Minimum flight weight	51000				

NOTE: The maximum take-off weight and/or maximum landing weight may be further limited due to performance considerations. Refer to Airplane Flight Manual for aircraft eligibility.

Minimum Crew — Two (Pilot and Co-pilot)

Maximum Occupants — 110, including 6 crew members (1 Pilot, 1 Co-pilot, 1 observer and 3 Flight Attendants) (104 passengers when fitted with an approved interior)

Fuel Capacity (usable)

	Load*		Weight*	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 main tanks (each)	1113	926.8	3407	7513
Center tank	710	591.2	2174	4793
Total	2936	2444.7	8989	19818

See Note 1(b) for system fuel

* Pressure refueling (based on 0.809 kg/L) (6.75 lb./U.S. Gal.)

Oil Capacity — With option TS670-79-201 – Engine Oil – No Remote Replenishment System

	Load		Weight	
	U.S. Gal.	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Total	5.2	4.36	19.3	42.4

See Note 1(c) for system oil

With option CR670-79-201 – Engine Oil – Remote Replenishment System

	Load		Weight	
	U.S. Gal	Imp. Gal.	Kg.	lb.
2 Engines (each)	2.6	2.2	9.65	21.2
Replenishment Tank	1.6	1.3	5.9	13.0
Total	6.8	5.7	25.2	55.4

See Note 1(c) for system oil

Maximum Operating Altitude — Takeoff and landing: 10000 ft.; En route: 41000 ft.

Control Surface Movements

Rudder		33º Left	33º Right
Elevator		23.6º Up	18.4º Down
Horizontal Stabilizer		2.0º LE Up	13.0º LE Down
Aileron		24.1º Up	20.3º Down
Flap	– Inboard		45.0 º Down

– Outboard		34.0º Down
Multi-Function Spoiler	48.0º Up	
Ground Spoiler	44.0º Up	
Slat		25.0º Down

Serial Numbers Eligible 19013 and subsequent (see NOTE 11)

Service Information Service Bulletins, structural repair manuals, and aircraft flight manuals which contain a statement that the document is Transport Canada approved or Transport Canada approved through the Manufacturers Design Approval Representative are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

Data Pertinent to all Models

Approved Publications

Model CL-600-2B19

(a) Airplane Flight Manual, Canadair Publication CSP A-012 for the appropriate weight configuration and approved revisions.
(b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP A-053, Part 2 and subsequent approved revisions.
(c) Structural Repair Manual (SRM), Canadair Publication CSP A-008 and subsequent approved issues.
(d) Certification Maintenance Tasks, Canadair Regional Jet, Model CL-600-2B19 Engineering Report No. RBR-601R-167, as contained in Part 2 to the Maintenance Requirements Manual (MRM), Canadair Publication CSP A-053, and subsequent approved revisions.

Model CL-600-2C10

(a) Airplane Flight Manual, Canadair Publication CSP B-012 for the appropriate weight configuration and approved revisions.
(b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I and subsequent approved revisions.
(c) Structural Repair Manual (SRM), Canadair Publication CSP B-008 and subsequent approved issues.
(d) Airworthiness Limitations and Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II and subsequent approved revisions.

Model CL-600-2C11

(a) Airplane Flight Manual, Canadair Publication CSP B-012, revision 28 dated September 18, 2019 or later approved revisions for the appropriate weight configuration and approved revisions.
(b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I, revision 21 dated July 25, 2019 and subsequent approved revisions.
(c) Structural Repair Manual (SRM), Canadair Publication CSP B-008, revision 37 dated August 15, 2019 and subsequent approved revisions.
(d) Airworthiness Limitations and Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II, revision 21 dated July 25, 2019 and subsequent approved revisions.

Model CL-600-2D15/CL-600-2D24

(a) Airplane Flight Manual, Canadair Publication CSP C-012 for the appropriate weight configuration and approved revisions.
(b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I and subsequent approved revisions.
(c) Structural Repair Manual (SRM), Canadair Publication CSP B-008 and subsequent approved issues.
(d) Airworthiness Limitations and Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II and

subsequent approved revisions.

Model CL-600-2E25

(a) Airplane Flight Manual, Canadair Publication CSP D-012 for the appropriate weight configuration and approved revisions.

(b) Maintenance Review Board (MRB) Report and subsequent revisions as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part I and subsequent approved revisions.

(c) Structural Repair Manual (SRM), Canadair Publication CSP D-008 and subsequent approved issues.

(d) Airworthiness Limitations and Certification Maintenance Tasks, as contained in the Maintenance Requirements Manual (MRM), Canadair Publication CSP B-053, Part II and subsequent approved revisions.

Import Eligibility

A U.S. Airworthiness Certificate may be issued on the basis of the Canadian Department of Transport "Certificate of Airworthiness for Export" signed by the Minister of Transport. This form must contain the following statement:

(a) Model CL-600-2B19

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-276 and includes the minimum type design defined in document RAZ-601R-111 as being required to comply with the basis for the FAA Type Certificate No. A21EA-1".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2B19 airplane is defined in the document RAL-601R-XXXX. (XXXX represents the Serial Number for the airplane concerned).

Model CL-600-2B19 Green Configuration

For CL-600-2B19 Green Configuration and associated modifications refer to NOTE 4.

(b) Model CL-600-2C10/CL-600-2C11

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-276 and includes the minimum type design defined in document RAL-670-0001 and RAL-670-0002 as being required to comply with the basis for the FAA Type Certificate No. A21EA-1"

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2C10/CL-600-2C11 airplane is defined in the document RAL-670-XXXX for S/N 10002 to 10132 and RAL-BA670-XXXX for S/N 10133 and subsequent. (XXXX represents the Serial Number for the airplane concerned).

(c) Model CL-600-2D15/CL-600-2D24

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-276 and includes the minimum type design defined in document RAZ-BA690-129 as being required to comply with the basis for the FAA Type Certificate No. A21EA-1".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2D15/CL-600-2D24 airplane is defined in the document RAL-690-XXXX for S/N 15001 to 15013 and RAL-BA690-XXXX for S/N 15014 and subsequent. (XXXX represents the Serial Number for the airplane concerned).

(d) Model CL-600-2E25

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the Transport Canada Type Approval No. A-276 and includes the minimum type design defined in document RAZ-BA698-009 as being required to comply with the basis for the FAA Type Certificate No. A21EA-1".

The approved type design appropriate to the "as delivered" configuration of a particular CL-600-2E25 airplane is defined in the document RAL-BA698-19XXX. (19XXX represents the Serial Number for the airplane concerned).

Certification Basis

Model CL-600-2B19

14 CFR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-62 with the following exceptions;
14 CFR 25.109 at Amendment 25-41,
14 CFR 25.832 not included,
14 CFR 25.1401 at Amendment 25-40,
14 CFR 25.1438 not included and
14 CFR 25.783(f) at Amendment 25-23 for the cargo compartment door, the main avionics compartment door and the service/emergency door.
14 CFR 25.773(b)(2) and 25.785(h) at Amendment 25-72.

Model CL-600-2C10/CL-600-2C11
14 CFR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-86 with the following exceptions;
14 CFR 25.783(f) at Amendment 25-23 for the cargo compartment door, the main avionics compartment door and the service/emergency door.
14 CFR 25.571 at Amendment 25-96
14 CFR 25.493 at Amendment 25-97

Model CL-600-2D15/CL-600-2D24
14 CFR Part 25, including Amendments 25-1 through 25-86, Amendments 25-88 through Amendments 25-90, and Amendments 25-92 through 25-98 with the following exceptions:
(a) 14 CFR 25.783(f) at Amendment 25-23 shall replace 14 CFR 25.783(f) at Amendment 25-88 for the Aft Cargo Compartment and Main Avionics Bay Doors only (common doors with CL- 600-2C10 (CRJ700);
(b) 14 CFR 25.807(d)(6) at Amendment 25-72 shall replace 14 CFR 25.807(h) at Amendment 25-94;
(c) 14 CFR 25.365, 14 CFR 25.831(a) and 14 CFR 25.1447(c) at Amendment 25-87.
14 CFR 25 Amendment 25-91 is not included in Type Certification Basis.

Model CL-600-2E25
14 CFR Part 25 including amendments 25-1 through 25-119 with the following exceptions:
14 CFR Part 25.415 (rudder system only) at Amdt. 25-72;
14 CFR Parts 25.772(c) (not applicable);,
14 CFR Part 25.783(f) at Amdt. 25-23;
14 CFR Part 25.809 at Amdt. 25-72;
14 CFR Part 25.831(g) at Amdt. 25-41;
14 CFR Part 25.841(a) at Amdt. 25-38;
14 CFR Part 25.1329 at Amdt 25-46;
14 CFR Part 25.1335 at Amdt 25-41;
and 14 CFR Part 26.33 in lieu of 14 CFR Part 25.981(c) at Amdt 25-102;
Plus the following requirements: 14 CFR Part 25, Appendix J at Amdt. 25-117; 14 CFR Part 25.1317 at Amdt. 25-122 for the Rudder Control System; 14 CFR Part 25.812(h) at Amdt. 25-128;

Additional FAA Requirements

(a) Model CL-600-2B19
(1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-18 inclusive.

Individual airplanes with FAA Approved Aircraft Flight Manual RS-564 installed are recertified to 14 CFR Part 36 dated December 1, 1969, including Amendments 36-0 thru 36-31 at Stage 4.
(2) Applicable portions of 14 CFR 34 (previously codified as SFAR 27).
(3) Special Conditions:
- High Intensity Radiated Fields (HIRF), No. 25-ANM-61 dated July 22, 1992
- Passenger seats with non-traditional, large, non-metallic panels No. 25-384-SC dated August 12, 2009
- No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

Date of application for amendment to Type Certificate May 26, 1988.
Type Certificate A21EA amended January 21, 1993.

(b) Model CL-600-2C10/CL-600-2C11

(1a) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-22 inclusive (CL-600-2C10 Only).

(1b) For both models CL-600-2C10 and CL-600-2C11, individual airplanes with FAA Approved Aircraft Flight Manual RS-347 installed are recertified to 14 CFR Part 36 dated December 1, 1969, including Amendments 36-0 thru 36-31 at Stage 4.

(2) Applicable portions of 14 CFR 34

(3) Special Conditions:

- High Intensity Radiated Fields, No. 25-ANM-109 dated October 31, 1995
- Go-around performance credit for use of automatic power reserve (APR) No. 25-167-SC dated October 24, 2000.
- Passenger seats with non-traditional, large, non-metallic panels No. 25-384-SC dated August 12, 2009
- No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

(4) 14 CFR 25.975 at Amendment 25-143 (See NOTE 15)

CL-600-2C10:

Date of application for amendment to Type Certificate May 6, 1996.

Type Certificate A21EA amended February 16, 2001.

CL-600-2C11:

Date of application for amendment to Type Certificate March 1, 2019.

Type Certificate A21EA amended September 18, 2019.

(c) Model CL-600-2D15/CL-600-2D24

(1a) 14 CFR Part 36, effective September 10, 1990, and including all amendments effective on the date of Type Certification.

(1b) 14 CFR Part 36, effective August 7, 2002 (Amendment 36-24) for CL-600-2D24 incorporating conical nozzle with CF-34-8C5 and CF-34-8C5A1 engines.

(1c) For both models CL-600-2D15 and CL-600-2D24, individual airplanes with FAA Approved Aircraft Flight Manual RS-344 installed are recertified to 14 CFR Part 36 dated December 1, 1969, including Amendments 36-0 thru 36-31 at Stage 4.

(2) 14 CFR Part 34, effective September 10, 1990, and including all amendments effective on the date of Type Certification.

(3) Special Conditions:

- High Intensity Radiated Fields, No. 25-ANM-109 dated October 31, 1995
- Go-around performance credit for use of automatic power reserve (APR) No. 25-167-SC dated October 24, 2000 (same as CL-600-2C10)
- Sudden Engine Stoppage, No. 25-217-SC dated October 04, 2002
- Passenger seats with non-traditional, large, non-metallic panels No. 25-384-SC dated August 12, 2009
- No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

(4) Exemption:
Exemption No. 7447 Hydraulic Systems Testing for 14 CFR 25.1435(b)(1)

(5) 14 CFR 25.975 at Amendment 25-143 (See NOTE 15)

Date of application for amendment to Type Certificate November 1, 1999.

Type Certificate A21EA amended October 31, 2002.

(d) Model CL-600-2E25

(1) 14 CFR Part 36 effective September 10, 1990, and including all amendments effective on the date of Type Certification.

Individual airplanes with FAA Approved Aircraft Flight Manual RS-164 installed are recertified to 14 CFR Part 36 dated December 1, 1969, including Amendments 36-0 thru 36-31 at Stage 4.

(2) 14 CFR Part 34, effective September 10, 1990, and including all amendments effective on the date of Type Certification.

(3) Special Conditions:

- Interaction of Systems and Structures (for CBW Rudder System), 25-412-SC,

dated November 5, 2010
- Operation Without Normal Electrical Power, 25-413-SC, dated November 5, 2010
- Limit Torque Loads for Sudden Engine Stoppage, 25-217-SC, dated October 4, 2002
- Go-around performance credit for use of automatic power reserve (APR) 25-167-SC, dated October 24, 2000 (same as CL-600-2C10 & CL-600-2D24)
- Passenger seats with non-traditional, large, non-metallic panels, 25-409-SC dated July 27, 2010
- High Intensity Radiated Fields, 25-ANM-109, dated October 31, 1995, for changes other than the rudder control system and the unchanged areas.
- No. 25-666-SC, Non-Rechargeable Lithium Batteries, effective to design changes applied for after May 9, 2017. See the applicability section of this special condition for more information on which design change must meet it.

(4) Exemption:
Exemption No 10175, 14 CFR Part 25.981(a)(3) for Structural Lightning Protection Features. See NOTE 11

Date of application for amendment to Type Certificate Feb 23, 2007.
Type Certificate A21EA amended December 17, 2010.

Equivalent safety has been established for the following requirements:

(a) CL-600-2B19
- (1) 14 CFR 25.811(d)(2) Emergency Exit Marking Sign
- (2) 14 CFR 25.813(c)(1) Access to Type III exit-seat cushion intrusion
- (3) Several 14 CFR's for the use of 1-g Stall Speed (nonstructural items)
- (4) 14 CFR 25.621 (c)(2) Overwing Emergency Exit Door Critical Castings, P/N 601R38685-1, (documented in Transport Airplane Directorate ELOS Memo TD3995NY-T-A-1)
- (5) 14 CFR 25.1441(c) – Oxygen Quantity Indication of Passenger Lavatory Oxygen Dispensing Units, documented in Transport Airplane Directorate ELOS Memo AT07852NY-T-S-1 dated October 14, 2014.
- (6) 14 CFR 25.1443(c) – Minimum Mass Flow of Supplemental Oxygen - Passenger Lavatory Oxygen Dispensing Units, documented in Transport Airplane Directorate ELOS Memo AT07852NY-T-S-2 dated October 14, 2014.

(b) CL-600-2C10/CL-600-2C11
- (1) 14 CFR 25.103 and others Reduced Minimum Operating Speed Factors
- (2) 14 CFR 25.107(e)(1)(iv) Vlof and Vmu
- (3) 14 CFR 25.109 Rejected Takeoff and Landing Performance Criteria
- (4) 14 CFR 25.811(d)(2) Main Door Exit Marking Sign
- (5) 14 CFR 25.813(c)(2)(i) Emergency Exit Access documented in Transport Airplane Directorate ELOS Memo AT07658NY-T-C-1 dated April 3, 2014.
- (6) 14 CFR 25.904 Performance Credit for Use of APR During Reduced Thrust Takeoff
- (7) 14 CFR 25.933(a)(1)(ii) Thrust Reverser System
- (8) 14 CFR 25 App. I 25.5(b)(4) Lack of On/Off Switch for Automatic Takeoff Thrust Control System (ATTCS)
- (9) 14 CFR 25.841(b)(6) – High Altitude Takeoff and Landing Operations documented in Transport Airplane Directorate ELOS Memo AT2587NY-T-S-5.
- (10) 14 CFR 25.841 (a) and (b)(6) – High Elevation Airport Operations documented in Transport Airplane Directorate ELOS Memo TD6802NY-T-S-1.
- (11) 14 CFR 25.1441(c) – Oxygen Quantity Indication of Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-1.
- (12) 14 CFR 25.1443(c) – Minimum Mass Flow of Supplemental Oxygen – Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-2.
- (13) 14 CFR 25.807 and 25.813 – Passenger Seating Configuration with Additional 2 Passengers Aft of Overwing Exits, documented in Transport Airplane Directorate ELOS Memo AT08045NY-T-C-1 (See Note 13).

(c) CL-600-2D15/CL-600-2D24

(1) 14 CFR 25.103 and others Reduced Minimum Operating Speed Factors documented in Transport Airplane Directorate ELOS Memo AT2587NY-T-F-1 dated July 9, 2010.
(2) 14 CFR 25.811(d)(2) Main Door Exit Marking Sign documented in Transport Airplane Directorate ELOS Memo AT2587NY-T-SE-1 dated March 25, 2010.
(3) 14 CFR 25.813(c)(2)(i) Emergency Exit Access documented in Transport Airplane Directorate ELOS Memo AT07658NY-T-C-2 dated April 3, 2014.
(4) 14 CFR 25.904 Performance Credit for Use of APR During Reduced Thrust Takeoff documented in Transport Aiplane Directorate ELOS Memo AT2587NY-T-P-1 dated July 6, 2010.
(5) 14 CFR 25.933(a)(1)(ii) Thrust Reverser System documented in Transport Airplane Directorate ELOS Memo AT2587NY-T-P-2 dated July 6, 2010.
(6) 14 CFR 25 App. I 25.5(b)(4) Lack of On/Off Switch for Automatic Takeoff Thrust Control System (ATTCS) documented in Transport Airplane Directorate ELOS Memo AT2587NY- T-P-5 dated July 6, 2010
(7) 14 CFR 25.841(b)(6) – High Altitude Takeoff and Landing Operations documented in Transport Airplane Directorate ELOS Memo AT2587NY-T dated January 31, 2007.
(8) 14 CFR 25.841 (a) and (b)(6) – High Elevation Airport Operations documented in Transport Airplane Directorate ELOS Memo TD6802NY-T-S-1 dated July 31, 2013.
(9) 14 CFR 25.1441(c) – Oxygen Quantity Indication of Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-1 dated February 10, 2014.
(10) 14 CFR 25.1443(c) – Minimum Mass Flow of Supplemental Oxygen - Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-2 dated March 6, 2014.
(11) 14 CFR 25.811(g) and 25.812(b)(1) – Symbolic Exit Signs documented in Transport Standards Branch ELOS Memo AT08649NY-T-CS-1 dated July 5, 2018. (Applicable to CL-600-2D24 only).

(d) CL-600-2E25

(1) 14 CFR 25.107(e)(1) Take-off Speeds documented in Transport Airplane Directorate ELOS Memo AT5627NY-T-F-2 dated December 24, 2009.
(2) 14 CFR 25.811(d)(1)&(2) Emergency Exit Marking Sign and Locator documented in Transport Airplane Directorate ELOS Memo AT5627NY-T-C-4-1 dated September 18, 2009.
(3) 14 CFR 25.813(c)(2) Type III Emergency Exit Access documented in Transport Airplane Directorate ELOS Memo AT5627NY-T-C-4-2 dated September 18, 2009.
(4) 14 CFR 25.841(b)(6) – Cabin Pressurization – High Altitude Airfield Operations documented in Transport Airplane Directorate ELOS Memo AT5627NY-T-S-4 dated December 16, 2010.
(5) 14 CFR 25.933(a) Thrust Reverser System documented in Transport Airplane Directorate ELOS Memo AT5627NY-T-P-1 dated November 03, 2010.
(6) 14 CFR 25.5(b)(4) App. I Lack of On/Off Switch for Automatic Takeoff Thrust Control System (ATTCS) documented in Transport Airplane Directorate ELOS Memo AT2587NY- T-P-5 dated July 6, 2010.
(7) 14 CFR 25.904 App. I Performance credit for use of APR documented in Transport Airplane Directorate ELOS Memo AT2587NY-T-P-1 dated July 6, 2010
(8) 14 CFR 25.1441(c) – Oxygen Quantity Indication of Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-1 dated February 10, 2014.
(9) 14 CFR 25.1443(c) – Minimum Mass Flow of Supplemental Oxygen - Passenger Lavatory Oxygen Dispensing Units documented in Transport Airplane Directorate ELOS Memo AT07660NY-T-S-2 dated March 6, 2014.

Compliance with the following optional requirements has been established for the CL- 600-2B19, CL-600-2C10, CL-600-2C11, CL-600-2D15/CL-600-2D24 and CL-600-2E25:

(1) Ice Protection of 14 CFR 25.1419
(2) Ditching provisions of 14 CFR 25.801 when the safety equipment requirements of 14CFR 25.1411 and the ditching equipment requirements of 14 CFR 25.1415 are satisfied.

Equipment

The basic equipment as prescribed in the applicable airworthiness requirements (See Certification Basis) must be installed in the aircraft for certification.

14 CFR Part 26 – Continued Airworthiness and Safety Improvements for Transport Category Airplanes

Model CL-600-2B19

Based on 14 CFR § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations 14 CFR §§ 26.11, 26.33, 26.43, 26.45 and 26.49. (Amdt.No.26-0, through 26-1)

Model CL-600-2C10/CL-600-2C11

Based on 14 CFR § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations 14 CFR §§ 26.11, 26.33, 26.43, 26.45 and 26.49. (Amdt.No.26-0, through 26-1)

Model CL-600-2D15/CL-600-2D24

Based on 14 CFR § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations 14 CFR §§ 26.11, 26.21, 26.33, 26.43, 26.45 and 26.49. (Amdt.No.26-0, through 26-1).

Model CL-600-2E25

Based on 14 CFR § 21.101(g) for changes to TCs, applicable provisions of Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

Compliance has been found for the following regulations 14 CFR §§ 26.11, 26.21, 26.33, 26.43, 26.45. (Amdt.No.26-0, through 26-3)

Additional Design Requirements and Conditions

The following design details or information must be maintained to ensure that an unsafe design condition is not present:

The engines of the CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24, and CL-600-2E25 are able to be restored to a sufficient power/thrust level following an all engines out case, in order to enable the aircraft to achieve level flight without excessive loss of altitude.

NOTE 1

This Aircraft Type Certificate Data Sheet defines a configuration which does not include passenger provision for the CL-600-2B19 model green configuration, and the CL-600-2C11 model. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated. For the CL-600-2B19 Green Configuration and associated modifications refer to NOTE 4 & 5.

(a) Current weight and balance report including the 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.

(b) Model CL-600-2B19

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" is 14.5 U.S. Gal., 97 lb. (arm +494.3).

Model CL-600-2C10/CL-600-2C11

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" is 33.8 U.S. Gal., 228.2 lb. (arm +819.7 in).

Model CL-600-2D15/CL-600-2D24

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The

total amount of "system fuel" is 33.8 U.S. Gal., 228.2 lb. (arm+929.3 in).

Model CL-600-2E25
System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tank to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" is 37.5 U.S. Gal., 252.8 lb. (arm +997.6 in).

(c) Model CL-600-2B19
System oil, which must be included in the empty weight, is the amount of oil necessary for engine lubrication. The total amount of "system oil" is as follows:
5.83 U.S. gal. (total), 47 lb., (arm +785.67)

Model CL-600-2C10/CL-600-2C11
System oil, which must be included in the empty weight, is the amount of oil required to fill the system plumbing and tanks. The total amount of "system oil" is as follows:
With option TS670-79-201 – Engine Oil – No Remote Replenishment System,
6.1 U.S. Gal., 49.9 lb. (arm +1077.7 in)
With option CR670-79-201 – Engine Oil – Remote Replenishment System,
7.8 U.S. Gal., 62.9 lb. (arm +1091.2 in)

Model CL-600-2D15/CL-600-2D24
System oil, which must be included in the empty weight, is the amount of oil required to fill the system plumbing and tanks. The total amount of "system oil" is as follows:
With option TS670-79-201 – Engine Oil – No Remote Replenishment System,
6.1 U.S. Gal., 49.9 lb. (arm +1229.7 in)
With option CR670-79-201 – Engine Oil – Remote Replenishment System,
7.8 U.S. Gal., 62.9 lb. (arm +1243.2 in)

Model CL-600-2E25
System oil, which must be included in the empty weight, is the amount of oil required to fill the system plumbing and tanks. The total amount of "system oil" is as follows:
With option TS670-79-201 – Engine Oil – No Remote Replenishment System,
5.2 U.S. Gal., 42.4 lb. (arm +1345.6 in)

With option CR670-79-201 – Engine Oil – Remote Replenishment System,
6.8 U.S. Gal., 55.4 lb. (arm +1356.8 in)

NOTE 2

Model CL-600-2B19
All placards must be installed in accordance with Canadair Limited Drawings: 601R47600, 601R47602, 601R47700.
Note: Customized markings and placards drawings are not included.

Model CL-600-2C10/CL-600-2C11
All placards must be installed in accordance with Canadair Limited Drawings: BA670-47501, BA670-47506, BA670-47800. Self-illuminated Signs and Electrical Signs must be installed in accordance with BA670-47802 and BA670-47803.
Note: Customized markings and placards drawings are not included. Drawings noted above are for basic type certification only. For as-delivered aircraft configurations, refer to customer options listed in RAL-670-300.

Model CL-600-2D15/CL-600-2D24
All placards must be installed in accordance with the Bombardier Aerospace Drawings: BA690-47500, BA690-47506, BA690-47804. Self-illuminated Signs and Electrical Signs must be installed in accordance with BA690-47805 and BA690-47806.
Drawings noted above are for basic type certification only. For as- delivered aircraft configurations, refer to RAL-690-XXXX for S/N 15001 to 15013, and RAL-BA690-XXXX for S/N 15014 and subsequent. (XXXX denotes the serial number for the aircraft concerned).

Model CL-600-2E25
All placards must be installed in accordance with the Bombardier Aerospace Drawings: BA670-47850, BA670-47869, BA690-47504, BA690-47518, BA690-47525, BA690-47526, BA690-47528, BA690-47529, BA690-47530, BA698-47203, BA698-47502, BA698-47519, BA698-47800, BA698-47805

and CC698-47251. Self-illuminated Signs and Electrical Signs must be installed in accordance with BA690-47805 and BA698-47801.
Drawings noted above are for basic type certification only. For as- delivered aircraft configurations, refer to RAL-BA698-19XXX for S/N 19001 and subsequent. (19XXX denotes the serial number for the aircraft concerned).

NOTE 3

Model CL-600-2B19
The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Document CSP A-053, Part 2. These limitations may not be changed without FAA Engineering approval.

Model CL-600-2C10/CL-600-2C11
The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Document CSP B-053, Part 2. These limitations may not be changed without FAA Engineering approval.

Model CL-600-2D15/CL-600-2D24
The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Document CSP B-053, Part 2. These limitations may not be changed without FAA Engineering approval.

Model CL-600-2E25
The airplane life limits and repetitive inspections for components and equipment and information essential for proper maintenance, are listed in Bombardier Document CSP B-053, Part 2. These limitations may not be changed without FAA Engineering approval.

NOTE 4

Model CL-600-2B19
Major modifications which define the aircraft as the "Green Configuration" are recorded in document RAZ-601R-110 (Definition of Type Design for Transport Canada approval), as Appendix 2 to that document.

NOTE 5

Model CL-600-2B19
The green aircraft type design does not include passenger provisions. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated in accordance with the Type Approval Basis.
Aircraft delivered in the "Green Configuration" and incorporating Mod. Summary TC60255 (Blocking of Emergency Exits) are limited to carrying a maximum of twenty-two (22) occupants including the crew and no more than 19 passengers in accordance with FAR 25 requirements.

NOTE 6

Model CL-600-2B19
For all weather flight capability the Regional Jet aircraft is certified to operate in CAT II conditions, except when the aircraft is installed with the HGS system (TC 601R60262), in which case the aircraft is certified to operate in CAT IIIa conditions.

NOTE 7

RESERVED

NOTE 8

The CRJ200 is a marketing designation for the CL-600-2B19 (Regional Jet Series 100) aircraft with the General Electric CF-34-3B1 engines installed. All Airworthiness Directives issued against any CL-600-2B19 aircraft are similarly applicable to the CRJ200.
Special Edition (SE) and Challenger 850 are marketing designations used for a CL-600-2B19 delivered in a green configuration (See NOTES 4 & 5) and subsequently finished with an approved interior via Supplemental Type Certificates.

NOTE 9

RESERVED

NOTE 10

RESERVED

NOTE 11

Exemption No. 10175B-C amends Exemption No. 10175 for Structural Lightning Protection Features.

NOTE 12

Model CL-600-2E25 aircraft Serial Number (S/N) 19001 to 19012 have not been shown to comply with 14 CFR Part 25.856(b) at time of delivery.
Serial Numbers 19001 through 19012 are not eligible for a US Certificate of Airworthiness unless

modified to comply with 14 CFR Part 25.856(b).

NOTE 13

For Model CL-600-2C10 – Series 702 aircraft fitted with an approved interior including the Equivalent Safety Finding against 14 CFR 25.801 and 25.813, the maximum passenger capacity is limited to 71 passengers with a maximum of 28 passenger seats aft of the Type III overwing exit.
For Model CL-600-2C10 – Series 700 and Series 701 aircraft fitted with an approved interior including the Equivalent Safety Finding against 14 CFR 25.801 and 25.813, the maximum passenger capacity remains the same (68 and 70 passengers respectively) with a maximum of 28 passenger seats aft of the Type III overwing exit.

NOTE 14

RESERVED

NOTE 15

Model CL-600-2C10 – CRJ Series 700, 701, & 702 aircraft; Model CL-600-2C11 – CRJ Series 550 aircraft; Model CL-600-2D15 – CRJ Series 705 aircraft; and Model CL-600-2D24 – CRJ Series 900 aircraft, which received an original Certificate of Airworthiness on or after 23 August, 2018 and which have had Bombardier Modification Summary (ModSum) number 670T72560 (Introduction of Flame Arrestors) installed in production, comply with 14 CFR Part 25.975(a)(7) at amendment 143.

NOTE 16

The CRJ550 is a marketing designation for the CL-600-2C11 (Regional Jet Series 550) aircraft. All Airworthiness Directives issued against any CL-600-2C10 (Regional Jet Series 700, 701, & 702) aircraft are similarly applicable to the CL-600-2C11 (Regional Jet Series 550) aircraft.

NOTE 17

The following models were previously recorded on Revision No. 49 of TCDS A21EA and have been administratively transferred to this TCDS A21EA-1 Revision No. IR on November 26, 2019 pursuant to 14CFR § 21.47:
• CL-600-2B19 (Regional Jet Series 100 & 440)
• CL-600-2C10 (Regional Jet Series 700, 701 & 702)
• CL-600-2C11 (Regional Jet Series 550)
• CL-600-2D15 (Regional Jet Series 705)
• CL-600-2D24 (Regional Jet Series 900)
• CL-600-2E25 (Regional Jet Series 1000)

Existing manufactured Regional Jet Series aircraft have identification data plates which still refer to FAA Type Certificate A21EA since the approved type design was recorded on FAA Type Certificate A21EA at the time of manufacture. Since both FAA Type Certificates A21EA and A21EA-1 cross-reference each other via a record on the first page of both FAA Type Certificate Data Sheets, these aircraft will not require Supplemental aircraft identification data plates to comply with 14CFR §§ 21.182, 45.11, & 45.13.

FAA Airworthiness Directives (ADs) and any associated Alternate Means of Compliance (AMOCs) that refer to FAA Type Certificate A21EA and apply to any of the approved Regional Jet Series aircraft models listed above, continue to remain applicable following this administrative change.

Existing FAA Supplemental Type Certificates (STCs), Part Manufacturing Approvals (PMAs), Airworthiness Directives (ADs) or Alternate Means of Compliance (AMOCs) that refer to FAA Type Certificate A21EA and apply to any of the approved Regional Jet Series aircraft models listed above, are not required to be revised following this administrative change. When revising FAA STCs or PMAs for any other reason in the future, the STCs or PMAs may directly refer to both Type Certificates.

New production Regional Jet Series aircraft identification data plates will refer to the Transport Canada Type Certificate A-276 and this FAA Type Certificate A21EA-1.

NOTE 18

The following Serial Numbers are manufactured by Bombardier Inc. under its manufacturing permits (12-58), under licensing agreement with MHI RJ Aviation ULC.:
•CL-600-2D24: Serial Number: 15485 to 15499, which were manufactured on or after June 1, 2020.

NOTE 19

Model CL-600-2D24 aircraft fitted with an approved interior where the aft pair of overwing emergency exit doors are blocked, are limited to carrying a maximum of fifty-six (56) occupants including 6 crew-members (1 Pilot, 1 Copilot, 1 Observer, and 3 Flight Attendants) and no more than 50 passengers in accordance with FAR 25 requirements.

...END...