DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A21EA Revision No. 50 Bombardier Inc. CL-600-1A11 (600) CL-600-2A12 (601) CL-600-2B16 (601-3A Variant) CL-600-2B16 (601-3R Variant) CL-600-2B16 (604 Variant) 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)* * Administratively transferred to TCDS A21EA-1 Revision No. IR on November 26, 2019 (See Note 17) February 16, 2021

TYPE CERTIFICATE DATA SHEET NO. A21EA

This data sheet, which is part of 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: Bombardier Inc.

800 boul. René Lévesque West Montreal, Quebec, Canada

H3B1Y8

<u>I - Model CL-600-1A11 (600) (Transport Category), Approved November 7, 1980, by the FAA and August 10, 1980, by the Canadian Department of Transport (DOT).</u>

Engines	Two AVCO Lyco	ming ALF-5021	C or ALF-502L-2			
Fuel	Туре			Specifications		
		<u>Canada</u>	<u>U.S.A.</u>	<u>U.K.</u>	<u>China</u>	Russia/Ukraine
	Jet A	CAN2-3.23	ASTM D1655	-	-	-
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT
				91-91		
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-
				91-86		
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-
				91-87		
	Jet B	CAN2-3.22	ASTM D6615	D. Eng. RD2486	-	-
	JP-4	CAN2-3.22	MIL-DTL-5624	D. Eng. RD2454	-	-
	Jet A and Jet A-1	fuels must cont	ain an approved ant	i-icing additive un	less Canadair M	Iodification Summary
	600-702 and Lyco	ming Service E	Bulletin ALF-502-79	9-0007 are incorpor	rated.	-

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

Oil Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved publications).

Engine Lim	nits									Static st (lb.)		ompre	ssor R	PM		Intertu Fempe				
												LP]	HP		-				
												6N1		6N2	-	°C	°F			Limit
			N	Лах. Т	akeoff	•			75	500	9	06.0	9	8.2	9	04	166	0	5 mi	nutes
Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Rev No.	49	43	43	43	43	43	42	43	43	49	49	49	49	47	47	47	47	42	49	49
Page No.																				
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	Max. Continuous Starting Maximum	7100	96.0	96.4	877 823	1610 1513	10 seconds above 793°C (1460°F)
Oil Temperature	Maximum Permissible Transient* *Permitted during powe steady state operation.	er reduction. Nor	mal temperature	must be a	°C 143 170 chieved with	°F 290 338 sin two min	utes of achieving
Oil Pressure	Maximum Minimum		Sea Level At steady or high id	state low	120 p.s.i. 30 p.s.i.		
APU Limits	Maximum RPM Maximum EGT: Starting (10 seconds) Running		110% <u>°C</u> 974 732	<u>°F</u> 1785 1349			
Airspeed Limits (CAS) (See NOTE 1)	V _{mo} and M _{mo} (maxim Sea level to 10000 ft. above 10000 ft. V _{fe} (Flaps extended) V _a (maneuvering) (See AFM for variation V ₁₀ (Landing Gear Op	$\begin{array}{c} 20^{\circ}\\ 30^{\circ}\\ 45^{\circ} \end{array}$ of V $_{a}$ with altitu	m.p.h. 345 368 265 226 193 de and aircraft w	Knots 300 320 230 196 168 veight).	<u>Mach</u> - 0.79		
	V _{1e} (Landing Gear Ext		288	250	-		
C.G. Range (See NOTE 1)	Weight, lb. 24000 to 313 36500 25800 24000 Straight line variation b	00	Forward Li <u>% MAC (S</u> 16% (+502.8 18% (+504.* ven.	<u>ta.)</u> 848)		Aft L <u>% MAC</u> 28% (+5 33% (+5 33% (+5	(Sta.) - 13.965) 18.598)
Datum	Fuselage station 0, loca	ted 375 inches for	rward of weighir	ng datum j	ig point		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edg	ge of MAC from o	latum at +488.02	25 in.)			
Leveling Means	Target plate and plumb	bob bracket with	in rear fuselage,	at fuselage	e station 718		
Maximum Weights (See NOTE 1)	Ramp Takeoff Landing Zero Fuel Minimum flight weight *Certain aircraft are elig		n at an increased	weight. S	ee AFM as i	n approved	publications.
Minimum Crew	Two (Pilot and Co-pilo	t)					
Maximum Occupants (See NOTE 1)	Twenty-one (includes c	rew)					
Fuel Capacity		<u>U.S.</u>	Gal. Imp. (<u>Gal.</u>	<u>Kg.</u>	Weight, I	o. Mom.Arm-in.

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	2 main tanks (each) 1 center tank Total	732.5 751 2216	611.3 625.8 1848.4	2259.1 2316.1 6834.3	4981 5107 15069	(+506.5) (+457.5)
	Usable 2 main tanks (each) 1 center tank Total See NOTE 1(b) for system f	725 750 2200 ûuel.	605 625 1835	2236 2313 6785	4930 5100 14960	(+506.5) (+457.5)
Oil Capacity	2-engines (each) Total	<u>U.S. Gal.</u> 3.69 7.38	Imp. Gal. 3.07 6.14	<u>Kg.</u> 12.88 25.76	Weight, lb. 28.4 56.8	Mom.Arm-in. (+623) (+623)
	Usable 2-engines (each) Total See NOTE 1(c) for system of	1.94 3.87 oil.	1.61 3.22	6.76 13.52	14.9 29.8	(+623) (+623)
	APU Usable Total	.408 .714	.340 .594	1.43 2.49	3.144 5.5	(+675) (+675)
	Unusable	.306	.254	1.06	2.356	(+675)
Maximum Operating Altitude (See NOTE 1)	Takeoff and landing: En route:				dification Sumn	naries 600-1923
Control Surface Movements		23 0° (+ 20 board utboard	0° (+1.0°, -0.5°) 3.6° (+ or - 1.0°) +0.5° or -0.25°) 0.8° (+ or - 1.0°) ° - 40°(+3°, -0°)	Up LE Up Up 0	20° (+1.0°, -0 18.4° (+ or - 1 -9° (+ or - 0.5°) 21.3° (+ or - 1 0° - 45° (+ or - ° ° - 46.7° (+ or -	0°) Down LE Down 0°) Down 1.0°) Down
Serial Numbers Eligible	1002, 1004 to 1085	v	(, . ,	o p		
Service Information	Service Bulletins, structural document is Transport Cana Approval Representative are pertain to the type design or	da approved or Trar e accepted by the FA	isport Canada ap	proved throug	gh the Manufac	turers Design

II - Model CL-600-2A12 (601) (Transport Category), Approved March 11, 1983, by the FAA and February 25, 1983, by the Canadian Department of Transport (DOT).

Two General Electric CF-34-1A or *

Jet B

Engines

Fuel	Type			Specifications		
		Canada	<u>U.S.A.</u>	<u>U.K.</u>	<u>China</u>	Russia/Ukraine
	Jet A	CAN2-3.23	ASTM D1655	-	-	-
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT
				91-91		
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-
				91-86		
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-

CAN2-3.22

91-87

ASTM D6615 D. Eng. RD2486

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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, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved Publications).

Engine Limits		SL Static Thrust (lb.)	Compre	essor RPM		urbine rature**	
		` ´	LP	HP	•		
			<u>%N1</u>	<u>%N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
	Max. takeoff	9140	98.6	99.4	857	1575	5 minutes
	Normal takeoff	8650	96.2	98.3	842	1548	5 minutes
	Max. continuous	8920	98.6	99.2	838	1540	
	Idle range			62.9-64.0			
	Min. Idle in icing conditions			64.0			
	Transient:						
	Max. takeoff				886	1627	2 minutes
	Normal takeoff				864	1587	2 minutes
	Start/relight				930	1706	16 seconds
	-				889	1632	50 seconds

^{*} One - General Electric CF-34-3A and one CF-34-3A2 or

Aircraft with two CF34-3A or CF34-3A2 engines installed, improved performance is not available until Canadair Service Bulletin 601-0238 - Modification - Engines - Use of 3A engines at 3A power settings, is incorporated.

NOTE

^{2.} Engine Limits with APR Operating are only applicable to Outside Air Temperatures of - 4°F (-20°C) and above.

Oil Temperature	Maximum Permissible (15 minu Maximum for Single Engine Cli Maximum Continuous Minimum for Starting)	°C +163 +155 +150 -40	° <u>F</u> 325 311 302 -40
Oil Pressure	Maximum Transient Cold Start Maximum Continuous Minimum at Steady State Idle Minimum at Takeoff (power):		100 psi 95 psi 25 psi 40 psi		(Six minute	s maximum)
APU Limits	Maximum RPM Maximum EGT: Starting (10 seconds) Running		110% <u>°C</u> 974 732	°F 1785 1350		
Airspeed Limits (CAS)	V _{mo} and M _{mo} (maximum operations). Sea level to 10000 ft. 10000 ft. to 21420 ft. 21420 ft. to 25740 ft. 25740 ft. to 28640 ft. above 28640 ft. V _{fe} (Flaps extended)	20° 30°	m.p.h. 345 420 - 385 - 265 226	Knots 300 365 - 335 - 230 196	Mach 0.80 - 0.85 -	

One - General Electric CF-34-1A and one CF-34-3A or

One - General Electric CF-34-1A and one CF-34-3A2 or

Two - General Electric CF-34-3A or

Two - General Electric CF-34-3A2

^{**}See AFM as listed in Approved Publications for CF-34-3A and CF-34-3A2 engines ITT limits.

^{1.} Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine.

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		45°	215	187	-		
	V _a (maneuvering)						
	(See AFM for variation of V _a with	th altitude and	aircraft weig	ght).			
	V ₁₀ (Landing Gear Operation)		226	196	-		
	V _{1e} (Landing Gear Extended)		288	250	-		
C.G. Range	337 * 1 . 11		orward Limi			Aft Lir	
(See NOTE 1)	Weight, 1b. 25000 to 42250		MAC (Sta.) (+502.848			<u>% MAC (</u>	
	42250	10		5)		30% (+51:	
	31000					35% (+520	
	25000 Straight line variation between po	ointe given				35% (+520	0.450)
	Straight line variation between pe	Jilits giveii.					
Datum	Fuselage station 0, located 375 in	nches forward	of weighing	datum jig p	oint.		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge of MAC	្ត from datum ឧ	at +488.025	in.)			
Leveling Means	Target plate and plumb bob brack	ket within rear	fuselage, at	fuselage st	ation 7	718.	
Maximum Weights	<u>lb. *</u>						
(See NOTE 1)	Ramp 42250						
	Takeoff 42100 Landing 36000						
	Zero Fuel 29500						
	Minimum flight weight 25000			. 1 . 0			
	*Certain aircraft are eligible for o publications.	peration at an	increased w	eight. See A	AFM a	is in approved	
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants (See NOTE 1)	Twenty-two (includes crew).						
Fuel Capacity		U.S. Gal.	Imp. Gal	V	œ	Weight, lb.	Mom.Arm-in.
ruel Capacity	2 main tanks (each)	721	600.4	<u>. K</u> 22		4903	(+506.6)
	Auxiliary Tanks	1012	842.7	31		6882	(+455.6)
	Total	2454	2043.4	75	69	16688	
	Usable						
	2 main tanks (each)	720	600	22		4896	(+506.6)
	Auxiliary Tanks	1011	842	31		6875	(+455.6)
	Total See NOTE 1(b) for system fuel.	2451	2042	75	60	16667	
	See 118 12 1(8) for System ruen						
Oil Capacity		U.S. Gal.	Imp. Gal			Weight, lb.	Mom.Arm-in.
	2-engines (each) Total	1.70 3.40	1.42 2.83	6.2 12.		13.7 27.4	(+645.4) (+645.4)
	Total	3.40	2.65	12.	72	27.4	(1043.4)
	<u>Usable</u>						
	2-engines (each) Total	1.38 2.75	1.14 2.29	5.0 10.		11.11 22.22	(+645.4) (+645.4)
	See NOTE 1(c) for system oil.	2.13	2.29	10.	08	22.22	(+043.4)
	.,						
	APU Usabla	400	240	1	12	2 1 4 4	(1646.0)
	Usable Total	.408 .714	.340 .594	1.4 2.4		3.144 5.5	(+646.0) (+646.0)
							(10.0)
	Unusable	.306	.254	1.0	06	2.356	(+646.0)

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Maximum Operating Altitude	Takeoff and landing: En route:		10000 ft. 41000 ft.	
Control Surface Movements	Rudder Elevator Horizontal Stabilizer Aileron Flap Flight Spoiler	– Inboard – Outboard	25° (+1.0°, -0.5°) Left 23.6° (+ or - 1.0°) Up 0° (+0.5° or -0.25°) LE Up 20.8° (+ or - 1.0°) Up	25° (+1.0°,5°) Right 18.4° (+ or - 1.0°) Down -9° (+ or - 0.5°) LE Down 21.3° (+ or - 1.0°) Down 0° - 45° (+ or - 1°) Down 0° - 46.7° (+ or - 1°) Down

Serial Numbers Eligible 3001 to 3066

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-600-2B16 (Transport Category), Approved April 30, 1987, by the FAA and April 21, 1987, by the Canadian Department of Transport (DOT).

Engines (601-3A Variant) Two General Electric CF-34-3A or CF-34-3A2 or
One General Electric CF-34-3A and one CF-34-3A2

(601-3R Variant) Two General Electric CF-34-3A1 (Serial Number 5135 to 5194) Approved by the FAA 15 July 1995.

(604 Variant) Two General Electric CF 34-3B (Serial Number 5301 and subsequent) Approved by the FAA 31 May 1995.

Fuel	Туре			Specifications	S	
		Canada	<u>U.S.A.</u>	<u>U.K.</u>	<u>China</u>	Russia/Ukraine
	Jet A	CAN2-3.23	ASTM D1655	-	-	-
	Jet A-1	CAN2-3.23	ASTM D1655	DEF STAN	No. 3 Jet	TS-1* or RT
				91-91		
	Grade JP-5	-	MIL-DTL-5624	DEF STAN	-	-
				91-86		
	Grade JP-8	-	MIL-DTL-83133	DEF STAN	-	-
				91-87		
	Jet B	CAN2-3.22	ASTM D6615	D. Eng. RD2486	-	-
	JP-4	CAN2-3.22	MIL-DTL-5624	D. Eng. RD2454	-	-
	*Refer to approp	riate AFM listed	l in Approved Pub	lication section whe	n using TS-1.	

Oil Engine, APU, Generator Adapter:

MIL-L-7808 (Type I) or MIL-L-23699 (Type II) or other approved oils as identified in the Maintenance Manual (refer to Approved publications).

601-3A & 3R Variants

Engine Limits

	SL Static Thrust (lb.)	Compre	essor RPM		urbine np.**	
		LP	HP			
		%N1	<u>%N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
Max. takeoff	9140	98.6	99.4	871	1600	5 minutes
Normal takeoff	8650	96.2	98.3	856	1573	5 minutes
Max. continuous	8920	98.6	99.2	860	1580	
Idle range			62.9-64.0			
Min. Idle in icing conditions			64.0			
Transient:						
Max. takeoff				900	1652	2 minutes
Normal takeoff				878	1612	2 minutes
Start/relight				930	1706	16 seconds

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** See AFM as listed in Approved Publications for CF-34-3A and CF-34-3A2 engines ITT limits. NOTE 1. Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine. 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above. Oil Temperature Maximum Permissible (15 minutes Maximum):						903	1657	50 seconds
1. Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine. 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above. 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above. 3. Maximum Permissible (15 minutes Maximum):		** See AFM as lis	ted in Approved Publi	cations for CF-34	1-3A and			mits.
1. Above 40000 feet, engine anti-ice bleed or air conditioning unit must be selected ON for each engine. 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above. 2. Engine Limits with APR Operating are only applicable to Outside Air Temperatures of -4°F (-20°C) and above. 32				N.O.	_			
Solution		1. Above 40000 fe	eet, engine anti-ice blee			must be selec	cted ON for e	ach engine.
Maximum Permissible (15 minutes Maximum): "C "E Maximum for Single Engine Climb (60 minutes maximum): 1153 325 Maximum for Single Engine Climb (60 minutes maximum): 1159 302 Minimum Transient Cold Start: 100 psi (6 min. maximum) Maximum Engine Start [de]: 25 psi (6 min. maximum) APU Limits Maximum RPM Maximum Engine Engine Clowers: 110% ** APU Limits Maximum Engine Engine Clowers: 97 4 1785 APU Limits Maximum Engine Engine Clowers: 97 4 1785 APU Limits Maximum Engine Engine Clowers: 97 4 1785 Airspeed Limits (CAS) Vmo and Mmo (maximum operating) mp.h. kmots Mach Airspeed Limits (CAS) Vmo and Mmo (maximum operating) mp.h. kmots Mach Airspeed Limits (CAS) Vmo and Mmo (maximum operating) mp.h. kmots Mach Airspeed Limits (CAS) Vmo and Mmo (maximum operating) mp.h. kmots Mach Airspeed Limits (CAS) Vmo and Mmo (maximum operating) mp.h. kmots Mach Airspeed Limits (CAS) Vmo an			with APR Operating ar	e only applicable	to Outsid	de Air Tempe	ratures of -4°	F (-20°C) and
Maximum for Single Engine Climb (60 minutes maximum): 115 3 30	Oil Temperature						<u>°F</u>	
Maximum Continuous: 1150 302 302 304 305								
Minimum for Starting:				minutes maximun	n):			
Oil Pressure Maximum Transient Cold Start: 100 psi Maximum Continuous: 95 psi Minimum ant Stacedy State Idle: 2.5 psi Minimum ant Takeoff (power): 40 psi (6 min. maximum) APU Limits Maximum RPM Maximum EGT: 95 Starting (10 seconds) 974 1785 Starting (10 se								
Maximum Continuous: 95 psi Minimum at Staedy State Idel: 25 psi 40 psi		11.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1				.0		
Minimum at Steady State Idle: 40 ps :	Oil Pressure					(6 min. max	imum)	
APU Limits Maximum RPM								
Maximum EGT: C C F Starting (10 seconds) 974 1785								
Maximum EGT: C C F Running (10 seconds) 974 1785	APU Limits	Maximum RPM		110%				
Running Runn	TH C Zimin				°F			
Airspeed Limits (CAS)			ds)					
Sea level to 10000 ft. 346 301 -		Running		731	1348			
10000 ft. to 21330 ft. 414 360 - 21330 ft. to 25640 ft. 2640 ft. 380 330 - 25640 ft. 28720 ft. 380 330 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267 232 - 200 267	Airspeed Limits (CAS)			-		Mach		
21330 ft. to 25640 ft. 380 330 - 25640 ft. to 28720 ft. 380 330 - 380 330 - 232						-		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				414		0.79		
$V_{fe} \ (\text{Flaps extended}) \qquad 20^{\circ} \qquad 267 \qquad 232 \qquad - \\ 30^{\circ} \qquad 228 \qquad 198 \qquad - \\ 45^{\circ} \qquad 218 \qquad 190 \qquad - \\ V_{a} \ (\text{maneuvering}) \\ (\text{See AFM for variation of } V_{a} \ \text{with altitude and aircraft weight)}. \\ V_{1o} \ (\text{Landing Gear Operation}) \qquad 226 \qquad 197 \qquad - \\ V_{1e} \ (\text{Landing Gear Extended}) \qquad 288 \qquad 250 \qquad - \\ \\ C.G. \ \text{Range} \ (\text{See NOTE 1}) \qquad \frac{\text{Weight. lb.}}{25000 \ \text{to } 42250} \qquad \frac{96 \ \text{MAC (Sta.)}}{16\% \ (+502.848)} \qquad - \frac{96 \ \text{MAC (Sta.)}}{35\% \ (+520.450)} \\ 31000 \qquad \qquad 30\% \ (+515.818) \\ 31000 \qquad \qquad 35\% \ (+520.450) \\ 25000 \qquad \qquad 35\% \ (+520.450) \\ 35000 \qquad \qquad 35\% \ (+520.450) \\ 35\% \ (+520.450$				380		-		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		above 28720 ft.		-	-	0.835		
$V_{a} (\text{maneuvering}) \\ (\text{See AFM for variation of V}_{a} \text{with altitude and aircraft weight}). \\ V_{1o} (\text{Landing Gear Operation}) \\ V_{1e} (\text{Landing Gear Extended}) \\ 288 250 - \\ \\ C.G. \text{Range} \\ (\text{See NOTE 1}) \\ \\ \frac{\text{Weight}, \text{lb.}}{25000 \text{to}} \frac{\text{Forward Limit}}{25000 \text{to}} \frac{\text{Aft Limit}}{25000 \text{to}} \frac{\text{Aft Limit}}{25000 \text{to}} \frac{\text{MAC (Sta.)}}{25000 \text{to}} \frac{\text{MAC (Sta.)}}{250000 \text{to}} \frac{\text{MAC (Sta.)}}{250000 \text{to}} \frac{\text{MAC (Sta.)}}{2500000000000000000000000000000000000$		V _{fe} (Flaps extended)	ed) 20°	267	232	-		
$V_{a} (\text{maneuvering}) \\ (\text{See AFM for variation of V}_{a} \text{with altitude and aircraft weight)}. \\ V_{1o} (\text{Landing Gear Operation}) \\ V_{1e} (\text{Landing Gear Extended}) \\ 288 \\ 250 \\ 288 \\ 250 \\ 2500 \\ 2500 \\ 2500 \\ 25000 \\ 2$						-		
$ (See AFM for variation of V_a with altitude and aircraft weight). \\ V_{1o} (Landing Gear Operation) & 226 & 197 & - \\ V_{1e} (Landing Gear Extended) & 288 & 250 & - \\ \\ C.G. Range (See NOTE 1) & & & & & & & & & & & & & & & & & & $		V (mamayyyanina)		218	190	-		
V10 (Landing Gear Operation) 226 197 - V1e (Landing Gear Extended) 288 250 -				.11 .:	-:-1-4)			
C.G. Range (See NOTE 1) Variable Variab			•					
C.G. Range (See NOTE 1) Weight, lb. 25000 to 42250 16% (+502.848) 43250 30% (+515.818) 31000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 25000 35% (+520.450) 31000 35% (+520.450) 25000 35% (+520.450) 31000 35% (+520.450) 35% (+520.450) 45000 35% (+520.450)						-		
(See NOTE 1) Weight, lb. 25000 to 42250 % MAC (Sta.) 16% (+502.848) % MAC (Sta.)		V _{1e} (Landing Gea	ar Extended)	288	250	-		
25000 to 42250 16% (+502.848) -1	_	337 * 1	. 11					
43250 30% (+515.818) 31000 35% (+520.450) 25000 35% (+520.450) Straight line variation between points given. Datum Fuselage station 0, located 375 inches forward of weighing datum jig point Mean Aerodynamic Chord (MAC) Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718. Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500	(See NOTE 1)						% MAC (<u>Sta. j</u>
31000 35% (+520.450) 25000 35% (+520.450) Straight line variation between points given. Datum Fuselage station 0, located 375 inches forward of weighing datum jig point Mean Aerodynamic Chord (MAC) Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718. Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500					10)		30% (+515	5.818)
Straight line variation between points given. Datum Fuselage station 0, located 375 inches forward of weighing datum jig point Mean Aerodynamic Chord (MAC) Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718. Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500							,	
Mean Aerodynamic Chord (MAC) Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718. Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500				ven.			35% (+520	0.450)
(MAC) Leveling Means Target plate and plumb bob bracket within rear fuselage, at fuselage station 718. Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500	Datum	Fuselage station 0	, located 375 inches fo	rward of weighin	g datum	jig point		
Maximum Weights (See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500		92.644 in. (Leadin	ng edge of MAC from o	datum at +488.02	25 in.)			
(See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500	Leveling Means	Target plate and p	lumb bob bracket with	in rear fuselage, a	at fuselag	e station 718		
(See NOTE 1) Ramp 43250 Takeoff 43100 Landing 36000 Zero Fuel 29500	Maximum Weights		<u>lb. *</u>					
Landing 36000 Zero Fuel 29500	_		43250					
Zero Fuel 29500								
		Minimum	25000					

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	*Certain aircraft are eligible for Variant for aircraft S/N 5135 and		fferent weigh	nts. See AF	M as in app	roved pub	lications. 601-
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants	Twenty-two (includes crew).						
604 Variant Engine Limits	CF34-3B	SL Static Thrust (lb.)	Compress		Interturbin	ne Temp.	
			LP <u>%N1</u>	HP <u>%N2</u>	<u>°C</u>	<u>°F</u>	Time Limit
	Max. takeoff	9220	98.6	99.4	899	$1\overline{650}$	5 minutes
	Normal takeoff	8729	96.2	98.3	884	1623	5 minutes
	Max. continuous	9140	98.6	99.2	899	1650	
	Idle range			62.9-64.0			
	Min. Idle in icing conditions			64.0			
	Transient:						
	Max. Takeoff				928	1702	2 minutes
	Normal Takeoff				906	1663	2 minutes
	Start/relight				930	1706	16 seconds
					903	1657	50 seconds
	1. Above 40000 feet, engine an		NOTE		. 1 1 .	1.037.0	, ,
Oil Temperature	above.				<u>°C</u>	<u>°F</u>	
On Temperature	Maximum Permissible (15 min	utec Mavimum)	١٠		+ <u>C</u>	325	
	Maximum for Single Engine Cl				+155	311	
	Maximum Continuous:	inno (oo inniate	3 maximam)	•	+150	302	
	Minimum for Starting:				-40	-40	
Oil Pressure	Maximum Transient Cold Start		115 ps	si (10) min. maxi	imum)	
OH I TOSSUIC	Maximum Continuous:	·•	95 ps) IIIIII IIII	1114111)	
	Minimum at Steady State Idle:		25 ps				
	Minimum at Takeoff (power):		45 ps				
APU Limits							
	Maximum RPM		110%				
	Maximum EGT:		<u>°C</u>	<u>°F</u>			
	Starting (10 seconds)		974	1785			
	Running		731	1348			
Airspeed Limits (CAS)	V _{mo} and M _{mo} (maximum oper	rating)	<u>m.p.h</u>	. Knots	Mach		
	Sea level to 8000 ft.		345	300	-		
	8000 ft. to 22160 ft.		400	348	-		
	22160 ft. to 26570 ft.		-	<u>-</u>	0.78		
	26570 ft. to 30997 ft.		366	318	-		
	above 30997 ft.		-	-	0.85		
	V _{fe} (Flaps extended)	20°	266	231	-		
		30°	227	197	-		
		45°	217	189	-		
	V _a (maneuvering)						
	(See AFM for variation of V _a v	with altitude and	d aircraft wei	ght).			
	V ₁₀ (Landing gear operation)		227	197			
	10 (Zamaning gear operation)		221	17/	-		

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C.G. Range	V _{1e} (Landing gear extende	ed)		288 orward Limit		Aft Lin	
(See NOTE 1)	Weight, lb.			6 MAC (Sta.)		<u>% MAC (</u>	Sta.)
	26000 to 3800			0% (+506.553			
	39500 to 4475	0		6% (+502.847			
	47700 47700 to 4300	0	20	0% (+506.553)	290/ (+522	220)
	38000 to 2600					38% (+523 35% (+520	,
	Straight line variation betw		given			3370 (+320	1.449)
	Straight line variation betw	reen points	given.				
Datum	Fuselage station 0, located				n jig point.		
Mean Aerodynamic Chord (MAC)	92.644 in. (Leading edge of	of MAC froi	m datum at +4	188.025 in.)			
Leveling Means	Target plate and plumb bol	b bracket w	ithin rear fuse	elage, at fusel	age station 718.		
Maximum Weights		<u>lb. *</u>					
(See NOTE 1)	Ramp	47700					
	Takeoff	47600					
	Landing	38000					
	Zero Fuel	32000					
	Minimum	26000	.:		AEM :		-4: (01 2D
	*Certain aircraft are eligibl Variant for aircraft S/N 51:			m weights. So	ee Arivi as iii apj	proved publica	ations. 601-3K
Minimum Crew	Two (Pilot and Co-pilot)						
Maximum Occupants	Twenty-two (includes crew).					
•	· ·						
601-3A Variant							
Fuel Capacity			U.S. Gal.	Imp. Gal.	<u>Kg.</u>	Weight, lb.	Mom.Arm-in.
	<u>Usable</u>						
	2 main tanks (each)		727	605	2227	4909	(+506.6)
	Fuselage tanks		1017	847	3115	6868	(+455.6)
	Total See NOTE 1(b) for system	fuel	2472	2059	7569	16686	
	See NOTE I(0) for system	luci.					
601-3R Variant							
Fuel Capacity			U.S. Gal.	Imp. Gal.	Kg.	Weight, lb.	Mom.Arm-in.
1 3	<u>Usable</u>						
	2 main tanks (each)		727	605	2227	4909	(+506.6)
	Fuselage tanks		1010	841	3115	6868	(+455.6)
	Tail tank		187.7	156.24	579	1276	(+816.7)
	Total		2651.7	2207.24	8148	17962	
	See NOTE 1(b) for system	fuel.					
604 Variant							
Fuel Capacity			U.S. Gal.	Imp. Gal.	Kg.	Weight 1h	Mom.Arm-in.
Tuel Capacity	<u>Usable</u>		<u>0.5. Gai.</u>	mp. Gar.	<u>ixg.</u>	weight, io.	WOIII.AI III-III.
	2 main tanks (each)		720	600	2205	4860	(+506.6)
	Auxiliary tank		1062	884	3251	7168	(+450.6)
	Tail tank		461	384	1411	3112	(+771.7)
	Total		2963	2467	9072	20000	()
	See NOTE 1(b) for system	fuel.					
0.11.00	604 2 4 3 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		*** = *			***	
Oil Capacity	601-3A Variant*		<u>U.S. Gal.</u>	Imp. Gal.			Mom.Arm-in.
	2-engines (each)		1.70	1.42	5.94	13.09	(+653.0)
	Total		3.40	2.83	11.88	26.18	(+653.0)
	<u>Usable</u>		1 20	1 1 /	4.00	10.50	(1652.0)
	2-engines (each) Total		1.38 2.75	1.14 2.29	4.80 9.60	10.59 21.18	(+653.0) (+653.0)
	10141		2.13	2.29	7.00	21.10	(+033.0)

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See NOTE 1(c) for system oil.

<u>APU</u>					
Usable	.408	.340	1.43	3.144	(+646.0)
Total	.714	.594	2.49	5.5	(+646.0)
Unusable	.306	.254	1.06	2.356	(+646.0)

*601-3R Variant & 604 Variant - same as 601-3A, except as listed in the AFM approved

publication.

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

Control Surface Movements Rudder 25° (+1°, -0.5°) Left 25° (+1° or -0.5°) Right

 Elevator
 23.6° (+ or - 1.0°) Up
 18.4° (+ or - 1.0°) Down

 Horizontal Stabilizer
 0° (+ or - 0.3°) LE Up
 -9° (+ or - 0.3°) LE Down

 Aileron
 20.8° (+ or - 1°) Up
 21.3° (+ or - 1°) Down

 Flap
 - Inboard
 0° - 45° (+ or - 1°) Down

 - Outboard
 0° - 46.7° (+ or - 1°) Down

Flight Spoiler 0° - 40° (+3°, -0°) Up

Serial Numbers Eligible 5001 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.

Data Pertinent to all Models

Approved Publications

Model CL-600-1A11 (600)

- (a) Airplane Flight Manual, Canadair Publication RAG-600-101, Issue 2 (PSP 600 (U.S.) FAA, and PSP 600-1 (U.S.) for the appropriate configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-600-105, and later approved revisions.

Model CL-600-2A12 (601)

- (a) Airplane Flight Manual, Canadair Publication PSP 601-1A, PSP 601-1A-1, PSP 601-1B and PSP 601-1B-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601-105, and later approved revisions.

Model CL-600-2B16 (601-3A, 601-3R, & (604 Variants (from S/N 5301 to 5664)))

- (a) Airplane Flight Manual, Canadair Publication PSP 601A-1, PSP 601A-1-1 and PSP 604-1 for the appropriate weight configuration, (See NOTE 1) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-601A-105 (3A & 3R Variants) and RAL-604-0001 (604 Variant), and later approved revisions.

Model CL-600-2B16 (604 Variant (from S/N 5701 to 5988))

- (a) Airplane Flight Manual, Canadair Publication PSP 605-1 for the appropriate weight configuration, (See NOTE 1&9) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-604-0001 (604 Variant), and later approved revisions.

Model CL-600-2B16 (604 Variant (from S/N 6050 & Subs))

- (a) Airplane Flight Manual, Canadair Publication PSP 650-1 for the appropriate weight configuration, (See NOTE 1&14) and approved revisions.
- (b) Drawing List, Canadair Publication RAL-604-0001 (604 Variant), and later 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:

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(a) Model CL-600-1A11 (600)

"This certificates that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131, as modified by Drawing List, Canadair Publication RAL-600-105, and later approved revisions (FAA Type Certificate No. A21EA)".

(b) Model CL-600-2A12 (601)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601-105, and later approved revisions (FAA Type Certificate No. A21EA)".

(c) <u>Model CL-600-2B16 (601-3A & 3R Variants)</u>

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-601A-105 and later approved revisions (FAA Type Certificate No. A21EA)".

Model CL-600-2B16 (604 Variant)

"This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for the DOT Aircraft Type Approval No. A-131 as modified by Drawing List, Canadair Publication RAL-604-0001 and later approved revisions (FAA Type Certificate No. A21EA)".

Certification Basis

Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants)

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-37, plus FARs 25.675(a), 25.685(a), 25.733(c), 25.775(e), 25.787(c), 25.815, 25.841(b), 25.951(a), 25.979(d) and (e), 25.1041, 25.1143(e), 25.1303(a), 25.1322, 25.1385(c), 25.1557(b), 25.1583(a), of Amendment 25-38;

FARs 25.901(b) and (c), 25.903(c) and (e), 25.933(a), 25.943, 25.959, 25.1091(a) and (d), 25.1145(c), 25.1199(b) and (c), 25.1207, 25.1549, 25.1585(a)(9) of Amendment 25-40; and

FAR 25.1309 of Amendment 25-41;

FAR 25.1353(c) of Amendment 25-42;

FAR's25.571 and 25.629(d)(4) (v) of Amendment 25-45;

FARs 25.351 and 25.603 of Amendment 25-46.

Model CL-600-2B16 (604 Variant)

FAR Part 25 dated February 1, 1965, including Amendments 25-1 through 25-78 with the following exceptions:

FAR Part 25 at Amendments 25-1 through Amendment 25-37 for paragraphs: 109, 149, 365, 561, 625, 701, 772, 783 (except 783(f)), 785 (except 785(g)), 789, 791, 801, 803, 807, 809, 811, 812, 813, 831, 853, 855, 857, 1307, 1359, 1415, & 1419;

FAR Part 25 at Amendment 25-37 for existing installations and Amendment 25-78 for new installations for paragraphs: 963, 965, 994, 997, and 1438;

FAR Part 25 at Amendment 25-38 for paragraphs 787 and 1439;

FAR Part 25 at Amendment 25-40 for paragraph 25.973;

FAR Part 25 at Amendment 25-37 for paragraph 25.109 (see Note 7);

FAR Part 25 at Amendment 25-44 for paragraph 25.1413;

FAR Part 25 at Amendment 25-54 for paragraph 851;

FAR Part 25 at Amendment 25-80 for paragraph 1316.

New FAR Part 25 requirements 562, 810, 819, 832, 858, 869, (a) & (b), 1421, 1423 and 1450 are not part of the certification basis.

Additional FAA Requirements

(a) Model CL-600-1A11 (600)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendment 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
 - No. 25-94-EA-12 dated March 26, 1980, (FAA Docket No. 16921) and Amendment No. 1 dated September 11, 1981.
 - No. 25-666-SC Non-Rechargeable Lithium Batteries, effective to design changes

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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 Type Certificate August 3, 1976.

Type Certificate A21EA issued November 7, 1980.

(b) Model CL-600-2A12 (601)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
 - No. 25-ANM-1 dated March 8, 1983.
 - 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 1, 1981.

Type Certificate A21EA amended March 11, 1983.

(c) Model CL-600-2B16 (601-3A & 3R Variants)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-9 inclusive.
- (2) SFAR 27 dated February 1, 1974, as amended through Amendment SFAR 27-2.
- (3) Special Conditions:
 - No. 25-ANM-1 dated March 8, 1983.
 - 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 March 3, 1986.

Type Certificate A21EA amended April 30, 1987.

(d) Model CL-600-2B16 (604 Variant)

- (1) FAR Part 36 dated December 1, 1969, as amended through Amendments 36-20 inclusive.
- (2) FAR Part 34 dated August 25, 1990 as amended through Amendment 34-1.
- (3) Special Conditions:
 - No. 25-ANM-109 dated October 31, 1995 (HIRF).
 - 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 Change to Type Design June 14, 1993.

Change to Type Design approved November 2, 1995.

Equivalent safety has been established for the following requirements:

(a) <u>CL-600-1A11 (600)</u>, <u>CL-600-2A12 (601)</u>, and <u>CL-600-2B16 (601-3A & 3R Variants)</u>.

- (1) FAR 25.773(b)(2) DV Window
- (2) 25.955(a)(4) Blocked Flow Meter Fuel Flow Requirements
- (3) FAR 25.201 Stall Determination

(b) <u>CL-600-2B16 (604 Variant)</u>

- (1) FAR 25.955 (a)(4) Blocked Flow Meter Fuel Flow Requirements
- (2) Several FAR's for the use of Reduced Minimum Operating Speed Factors
- (3) FAR 25.125(a) Increased Flare Height, for Steep Approach Landing Ops. at London City

(c) CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R, & 604 Variant)

- (1) Ditching provisions of 14 CFR 25.801
- (2) Ice Protection of 14 CFR 25.1419

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

Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants)

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

Equipment

Part 26 – Continued Airworthiness and Safety Improvements for Transport Page **13** of **20** A21EA

Category Airplanes

compliance with the applicable sections.

Exemption 9947

This exemption grants relief to Bombardier Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A & 3R Variants) from having to meet the airworthiness requirements of §§ 26.11, 26.33, 26.35, 26.43, 26.45, and 26.49.

(See Note 10 for a list of related operational requirements and associated considerations)

Model CL-600-2B16 (604 Variant)

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

Exemption 9947

This exemption grants relief to Bombardier $\underline{\text{Model CL-600-2B16 (604 Variant)}}$ from having to meet the airworthiness requirements of §§ 26.11, 26.33, 26.35, 26.45, and 26.49.

(See Note 10 for a list of related operational requirements and associated considerations)

This Aircraft Type Certificate Data Sheet defines a configuration which does not include passenger provision for the CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R & 604 Variants) models. Carriage of persons in the cabin is permitted when an approved seating arrangement and related required passenger provisions are incorporated.

(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-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 3R & 604 Variants)

System fuel, which must be included in the empty weight, is the amount of fuel required to fill the system plumbing and tanks to the undrainable level plus unusable fuel in the fuel tanks. The total amount of "system fuel" for the following Challenger variants is:

 Model:
 Total Unusable (system fuel)

 CL-600-1A11 (600), 2A12 (601)
 16.0 gal. total, 109 lb., (arm +500.00)

 CL-600-2B16 (601-3A & 3R Variants)
 17.5 gal. total, 119 lb., (arm +524.80)

 CL-600-2B16 (604 Variant)
 19.0 gal. total, 129 lb., (arm +536.60)

(c) Model CL-600-1A11 (600)

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:

7.38 U.S. gal. (total) 56.8 lb., (arm +623)

Model CL-600-2A12 (601) and CL-600-2B16 (601-3A, 3R and 604 Variant)

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:

6.1 U.S. gal. (total), 47 lb., (arm +680.5)

(d) Model CL-600-1A11 (600)

Aircraft which incorporate Canadair Limited Modification Summaries:

- 1) 600-556 Modified main landing gear wheel,
- 2) 600-592 Modified main landing gear sidestay,
- 3) 600-1933 Revised airspeed limitation placard.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 through 1037):

Maximum Weight	<u>lb.</u>
Ramp	38650
Takeoff	38500
Landing	32500
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew)

C.G. Range

NOTE 1

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	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 38650	16 % (+502.848)	
38650		28% (+513.965)
25800		33% (+518.598)
24000		33% (+518.598)
Straight line variation bet	ween points given.	

Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 40000 ft.

41000 ft.

with Canadair Limited Modification Summaries 600-1923 & 600-8330 incorporated.

(e) Model CL-600-1A11 (600)

Aircraft which incorporate Canadair Limited Modification Summaries:

- 1) 600-594 Landing gear for 40400 lb. takeoff weight aircraft,
- 2) 600-616 Wheels and brakes for the 40400 lb. takeoff weight aircraft,
- 3) 600-643 Structural reinforcement at wing B.L. O rib,
- 4) 600-752 Modified anti-skid unit,
- 5) 600-817 Stall protection system computer for the 40400 lb. takeoff weight aircraft,
- 6) 600-8150 Placard for the 40400 lb. takeoff weight aircraft,
- 600-760 Drop down passenger door-production improvement (required only on S/N 1024 & subsequent).

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent):

Maximum Weight	<u>lb.</u>
Ramp	40550
Takeoff	40400
Landing	36000
Zero fuel	28500

Maximum Occupants Twenty-two (includes crew)

C.G. Range (Aircraft without Canadair Modification Summary 600-8265 incorporated)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

C.G. Range (Aircraft with Canadair Modification Summary 600-8265 incorporated)

	Forward Limit	Aft Limit
Weight, lb.	<u>% MAC (Sta.)</u>	% MAC (Sta.)
24000 to 40550	16 % (+502.848)	-
40550	-	27% (+513.039)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	33% (+520.450)

Straight line variation between points given.

Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 40000 ft.

41000 ft. with Canadair Modification Summaries 600-1923

& 600-8330 incorporated

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(f) Model CL-600-1A11 (600)

Airspeed Limits (CAS)

Aircraft which, in addition to the Canadair Modification Summaries essential for operation at a maximum takeoff weight of 40400 lb., also incorporate the following Canadair Modification Summary:

 600-665 Revised Vmo/Mmo outputs of ADC and limitations placard may be operated at the following limitations:

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	Knots	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted unless the following additional Canadair Modification Summaries are incorporated:

- 1) 600-512 Prevention of spoiler asymmetry
- 2) 600-809 Dormant failure protection of the flight spoiler detent
- 3) 600-8212 Hydraulic pipe routing to suit spoiler detent mechanism.

(g) Model CL-600-1A11 (600)

Aircraft Serial Numbers 1086 and subsequent and aircraft incorporated the following:

- 1) Either
 - Canadair Service Bulletin
 600-0378 Modification Stall Protection System Stall Strip Removal and Altitude Compensation
- or b) Supplementary Type Certificate SA99NE Wing Stall Strip Removed and
- 2) Canadair Service Bulletin

600-0379 - Modification - Tires and Airspeed Limitation Placards - 41100 Pounds Takeoff Weight.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent)

Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and subsequent and Aircraft incorporating Canadair Service Bulletin 600-0221 or 600-0486

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	=
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

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Straight line variation between points given.

Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	Knots	Mach.
Sea level to 10000 feet	345	300	-
Above 10000 feet	420	365	0.835

Extension of the flight spoilers at airspeeds above Mach = 0.80 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

(h) Model CL-600-1A11 (600)

Aircraft incorporating the following Canadair Service Bulletins

- a) 600-0350 Modification Engine Speed Indicating- N1 Fan Speed Indicator
- 600-0379 Modification Tires and Airspeed Limitation Placards 41100 lb. Takeoff Weight.
- c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

600-0380 Modification - Nose Gear - Steer by Wire.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41250
Takeoff	41100
Landing	36000
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft

Incorporating Canadair Service Bulletin 600-0221 or 600-0486

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41250	16% (+502.848)	-
41250	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft. Page 17 of 20 A21EA

Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h.</u>	<u>Knots</u>	Mach
Sea level to 10000 feet	345	300	-
10000 ft. to 21420 ft.	420	365	-
21420 ft. to 25740 ft.	-	-	0.79
25740 ft. to 28640 ft.	385	335	-
above 28640 ft.	-	-	0.835
Vfe (Flaps extended)			
20°	265	230	
30°	226	196	
45°	215	187	

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification - Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

(i) Model CL-600-1A11 (600)

Aircraft incorporating the following Canadair Service Bulletins

- a) 600-0350 Modification Engine Speed Indicating- N₁ Fan Speed Indicator
- b) 600-0446 Modification Placard-41250 lb. Take-off Weight (Aircraft with Winglets).
- c) 600-0401 Modification Winglets Addition

With Aircraft Serial Numbers 1005 to 1008 and 1010 to 1051 incorporating the following additional Canadair Service Bulletins

either 600-0096 Modification - Nose Landing Gear Steering

or 600-0380 Modification - Nose Gear - Steer by Wire.

May be operated to the following limitations (eligible Serial Numbers 1002, 1004 and subsequent).

Maximum Weight	<u>lb.</u>
Ramp	41400
Takeoff	41250
Landing	36000
Zero Fuel	28500

<u>Maximum Occupants</u> Twenty-two (includes crew).

C.G. Range Aircraft 1004, 1009, 1053 to 1056, 1066 and Subsequent and Aircraft Incorporating Canadair Service Bulletin 600-0221

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41400	16% (+502.848)	-
41400	<u>-</u>	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
28500	-	35% (+520.450)
24000	-	35% (+520.450)

Straight line variation between points given.

C.G. Range (Other Aircraft)

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
24000 to 41400	16% (+502.848)	-
41400	-	26% (+512.112)
38000	-	31% (+516.745)
31000	-	31% (+516.745)
27500	-	33% (+518.598)
24000	-	33% (+518.598)

Straight line variation between points given.

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Maximum Operating Altitude

Takeoff and landing 10000 ft. En route 41000 ft.

Airspeed Limits (CAS)

Vmo and Mmo (maximum operating)	<u>m.p.h</u>	Knots	Mach
Sea level to 10000 feet	345	300	=
10000 ft. to 21420 ft.	420	365	-
21420 ft. to 25740 ft.	-	-	0.79
25740 ft. to 28640 ft.	385	335	-
above 28640 ft.	-	-	-0.835
Vfe (Flaps extended)			
20°	265	230	
30°	226	196	
45°	215	187	

Extension of the flight spoilers at airspeeds above Mach = 0.79 is not permitted on Aircraft S/N 1005 to 1008, 1010 to 1052, 1057 to 1066 not incorporating Canadair Service Bulletin 600-0086 Modification – Spoilers - Ground Spoiler Activation and Flight Spoiler Detent Mechanism.

(j) Model CL-600-2A12 (601)

Aircraft Serial Numbers 3018 and subsequent and aircraft incorporating the following Canadair Service Bulletin 601-0032 - Modification - Tires and Airspeed Limitation Placards 43100 lb. Takeoff Weight may be operated to the following limitations (eligible Serial Numbers 3001 and subsequent)

Maximum Weight	<u>lb.</u>
Ramp	43250
Takeoff	43100

Maximum Occupants Twenty-two (includes crew).

C.G. Range

	Forward Limit	Aft Limit
Weight, lb.	% MAC (Sta.)	% MAC (Sta.)
25000 to 43250	16% (+502.848)	-
43250	· -	30% (+515.818)
31000	-	35% (+520.450)
25000	-	35% (+520.450)
Straight line variation bet	ween points given.	· · · · · · · · · · · · · · · · · · ·

NOTE 2

Model CL-600-1A11 (600)

All placards must be installed in accordance with Canadair Limited Drawings: 600-40402, 600-40452, 600-51000, 600-51002, 600-51004

Model CL-600-2A12 (601)

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 600-51000, 600-51002, 601-51004.

Model CL-600-2B16 (601-3A, 3R and 604 Variants)

All placards must be installed in accordance with Canadair Limited Drawings: 601-40402, 601-40452, 601A51000, 601A51002, 601A51004.(601-3A & 3R Variants) 601-40402, 601-40452 & 604-51000 (604 Variant)

NOTE 3

Model CL-600-1A11 (600)

The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 605. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 602 and Job Inspection Card Manual PSP 622, NDT-612 contain all information essential for proper maintenance.

Model CL-600-2A12 (601)

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The airplane life limits and repetitive inspections for components and equipment are listed in Canadair Time Limits/Maintenance Checks, PSP 601-5. These limitations may not be changed without FAA Engineering approval. This document with Canadair Maintenance Manual, PSP 601-2 and Job Inspection Card Manual PSP 601-22, NDT-612 contain all information essential for proper maintenance.

Model CL-600-2B16 (601-3A, 3R and 604 Variants)

The airplane life limits and repetitive inspections for components and equipment are listed as follows:

- 1. 601 3A and 3R Variants: Canadair Time Limits/Maintenance Checks, PSP 601A-5;
- 604 Variant (s/n 5301 to 5664): Time Limits/Maintenance Checks, Identification No. CH 604 TLMC, Section 5-10;
- 604 Variant (s/n 5701 to 5988): Time Limits/Maintenance Checks, Identification No. CH 605 TLMC, Section 5-10.
- 4. 604 Variant (s/n 6050 and subsequent): Time Limits/Maintenance Checks, Identification No. CH 650 TLMC, Section 5-10.

These limitations may not be changed without FAA Engineering approval. These documents and the associated Canadair Maintenance Manual:

- 601 3A and 3R Variants: Aircraft Maintenance Manual PSP 601-2 Identification No. CH 601MM;
- 604 Variant (s/n 5301 to 5664): Aircraft Maintenance Manual Identification No. CH 604 MM:
- 604 Variant (s/n 5701 to 5988): Aircraft Maintenance Manual Identification No. CH 605 MM;
- 604 Variant (s/n 6050 and subsequent): Aircraft Maintenance Manual Identification No. CH 650MM:

and/or Job Inspection Card Manuals PSP601A-22 (601-3A Variant) and/or PSP 601R-22 (601-3R Variant), PSP604-22 (604 Variant), NDT604-12 contain all information essential for proper maintenance.

NOTE 4 RESERVED

NOTE 5 RESERVED

NOTE 6 RESERVED

NOTE 7 <u>Model Cl-600-2B16 (604 Variant)</u>

The following additional requirements must be included with FAR 25.109 at Amendment 25-37:

- Airplane Flight Manual information, in the form of guidance material, must be provided for supplementary operating procedures and performance information for operating on wet and contaminated runways.
- 2. The accelerate-stop distance and landing distance must be determined using the braking performance which is obtained with the brake conditions that are expected in service.

NOTE 8 RESERVED

NOTE 9

NOTE 10

The Challenger 605 is a marketing designation for the Challenger CL-600-2B16 (604 Variant) with Modsums 604DX10000, 604DX20000 and 604DX30000 incorporated, beginning with aircraft s/n 5701 to s/n 5988. This designation is for marketing purposes only.

This exemption does not grant relief from the related operational requirements contained in §§ 121.1109, 121.1111, 121.1117, 125.509, 129.109, 129.111 or 129.117. Should a person choose to operate a Bombardier Model CL-600-1A11 (600), CL-600-2A12 (601), CL-600-2B16 (601-3A Variant), CL-600-2B16 (601-3R Variant) or CL-600-2B16 (604 Variant) airplane under part 121, 125, or part 129 beyond the operational compliance deadlines as stated in §§ 121.1109, 121.1111, 121.1117, 125.509, 129.109, 129.111 or 129.117, that person will be required to comply with those operational requirements.

NOTE 11 RESERVED

NOTE 12 RESERVED

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NOTE 13 RESERVED

NOTE 14 The Challenger 650 is a marketing designation for the Challenger CL-600-2B16 (604 Variant) beginning with aircraft s/n 6050 and subsequent. This designation is for marketing purposes only.

NOTE 15 RESERVED

NOTE 16 RESERVED

NOTE 17

The following models were previously recorded on Revision No. 48 of this TCDS A21EA and have been administratively transferred to TCDS A21EA-1 Revision No. IR on November 26, 2019 pursuant to 14 CFR § 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 this FAA Type Certificate A21EA since the approved type design was recorded on this 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 this 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 this FAA Type Certificate A21EA and list 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.

Model	Variant Designation	Marketing Designation	Serial Number
CL600-1A11		CL600	1002, 1004-1085
CL600-2A12		CL601	3001-3066
CL600-2B16	601-3A	CL601-3A	5001-5134
CL600-2B16	601-3R	CL601-3R	5135-5194
CL600-2B16	604	CL604	5301-5664
CL600-2B16	604	CL605	5701-5988
CL600-2B16	604	CL650	6050-6999