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Content:

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RAPPORT Nº
REPORT NO. RAO-215-100

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D.3363 REV 1993/04

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REPORT NO. RAO-215-100
CERTIFICATION STANDARD FOR
CANADAIR MODEL CL-215
SPECIAL PURPOSE AIRCRAFT
12 MARCH 1965

		DATE
PREPARED	M. E. Gagnon	12 Mar 65
CHECKED		
APPROVED		12 Mar 65

REVISION LOG

REV. LETTER	DATE	REVISED BY	APPROVED BY	PAGES AFFECTED	CANCELLED	ADDED	REMARKS
NC	12 Mar 65						
2	15 Jan 66		MEG				
3	1 Nov 67		MEG	i, ii, iii, IV, 1, 2, 3, 4, 28, 29, 33, 34, 36-41			Revised or rewritten
3	28 Feb 69	(Rescinded)	KLH				
2 Rev.A	28 Feb 69	MEG	KLH	1, 2, 5, 8, 9, 10, 23, 25, 25, 28, 29, 33, 34, 36, 37, 38, 39, 40, 41			
2 Rev.B	21 May 70	MEG	KLH	1, 2, 15.			Adds Amend. No. 25-18.
2 Rev.C	13 Sep 73	C. A. S.	KLH	15, 16, 40A, 40B, 40C.			Special Conditions for Alcohol System
Rev.C Add.1	27 May 74	C. A. S.	KLH	15, 16.			Symbol changed

THIS REPORT CONTAINS ..... PAGES

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RAO-215-100

Plus Supplement 1

Certification Standard for

Model CL 215 & CL 215T

DATE

PREPARED See Original Cover Sheet _____

CHECKED _____ _____

APPROVED _____ _____

REVISION LOG

REV. LETTER	DATE	REVISED BY	APPROVED BY	PAGES AFFECTED	REMOVED	ADDED	REMARKS
NC							
Iss.2 Rev.D	June 1988	K.A.B.	K.A.F.	i, 4, 43 to 54			Introduces Suppt. 1
Iss.2 Rev.E	Dec. 1988	K.A.B.	K.A.F.	i, 4, 43 to 55			Supplement 1 revised to final CL-215T std.
Iss.2 Rev.F	May 1989	K.A.B.	K.A.F.	4, 43 to 55			Correction to Para. 255 & code of symbols.
Iss.2 Rev.G	Feb. 1991	A.K. Nassim	W.B. Remington	i, ii, iii, iv, 43 to 67			General Rev. to Supplement 1 for Final Type Board Meeting
Iss.2 Rev.H	Sept.1991	F. Farag	W.B. Remington	i, 43 to 122			General Rev. to Supplement 1

THIS REPORT CONTAINS . . . . . PAGES

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WATER BOMBER MODEL CL-215-6B11 (CL-415)

TYPE APPROVAL SUBMISSION

REPORT NO. RAO-215-100

TITLE: Plus Supplement 2
Certification Standard for
Model CL-215 & CL-215T & CL-415

DATE

PREPARED see original cover sheet _____

CHECKED _____

APPROVED _____

REVISION LOG

REV LETTER	DATE	REVISED BY	APPROVED BY	PAGES AFFECTED	REMOVED	ADDED	REMARKS
NC							
Iss 2 Rev I	June 1994	F.K. Farag	W.B. Remington	123 to 152			addition of Supplement 2

THIS REPORT CONTAINS _____ PAGES

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WING		
	AREA	1080 SQ.FT.
	SPAN	93'-10"
	CHORD	139.4"
	A/R	8.15
HORIZONTAL TAIL		
	AREA	306 SQ.FT.
	SPAN	36'-0"
	CHORD	104.0"
	A/R	4.24
VERTICAL TAIL		
	AREA	161 SQ.FT.
	ROOT CHORD	190.0"
	TIP CHORD	70.3" THEORETICAL
	HEIGHT	179.0"
	A/R	1.38
FUSELAGE		
	OVERALL LENGTH	63'-6.6"
	BEAM	102.0"
	HEADROOM	75.0"

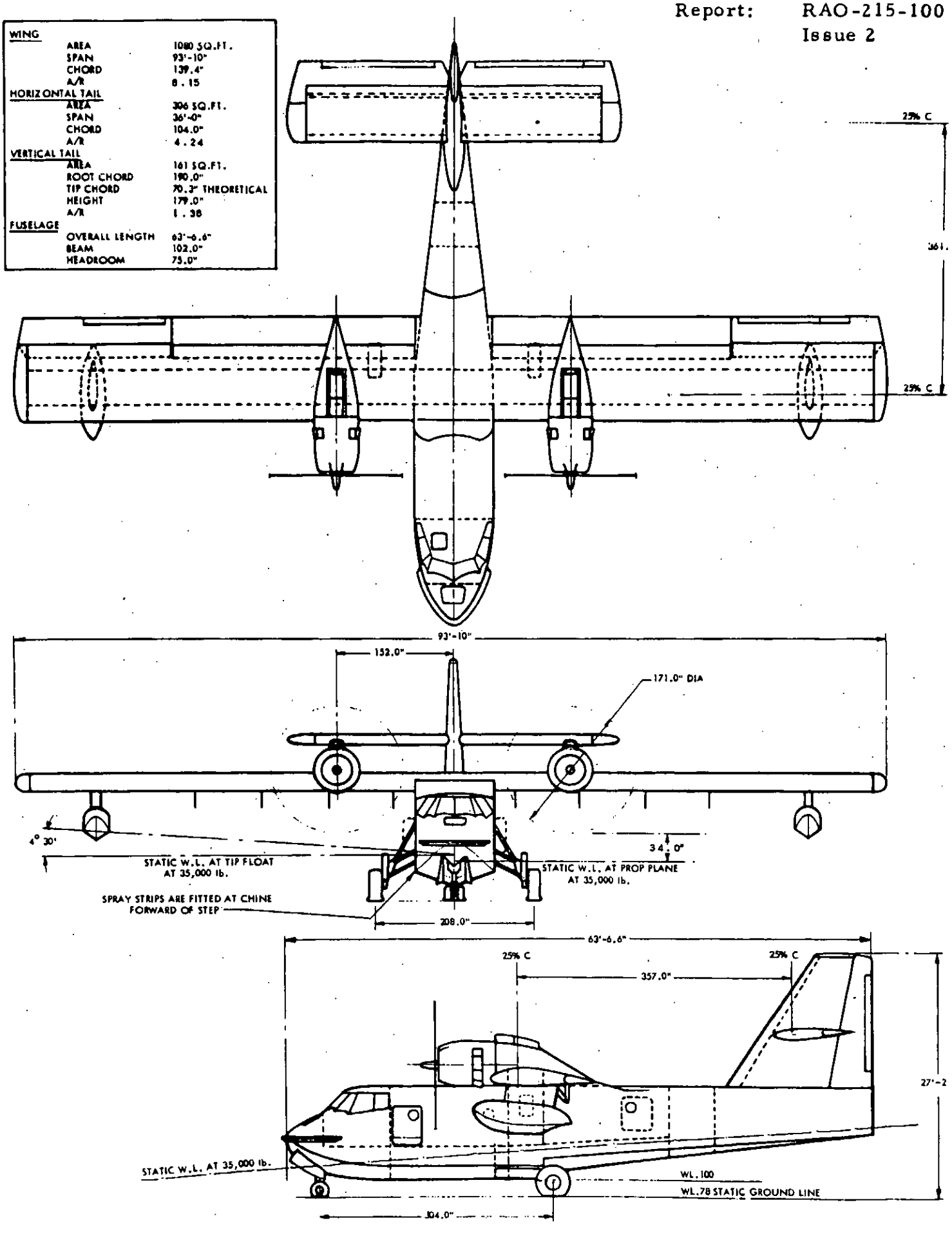

Figure 1 CL-215 GENERAL ARRANGEMENT

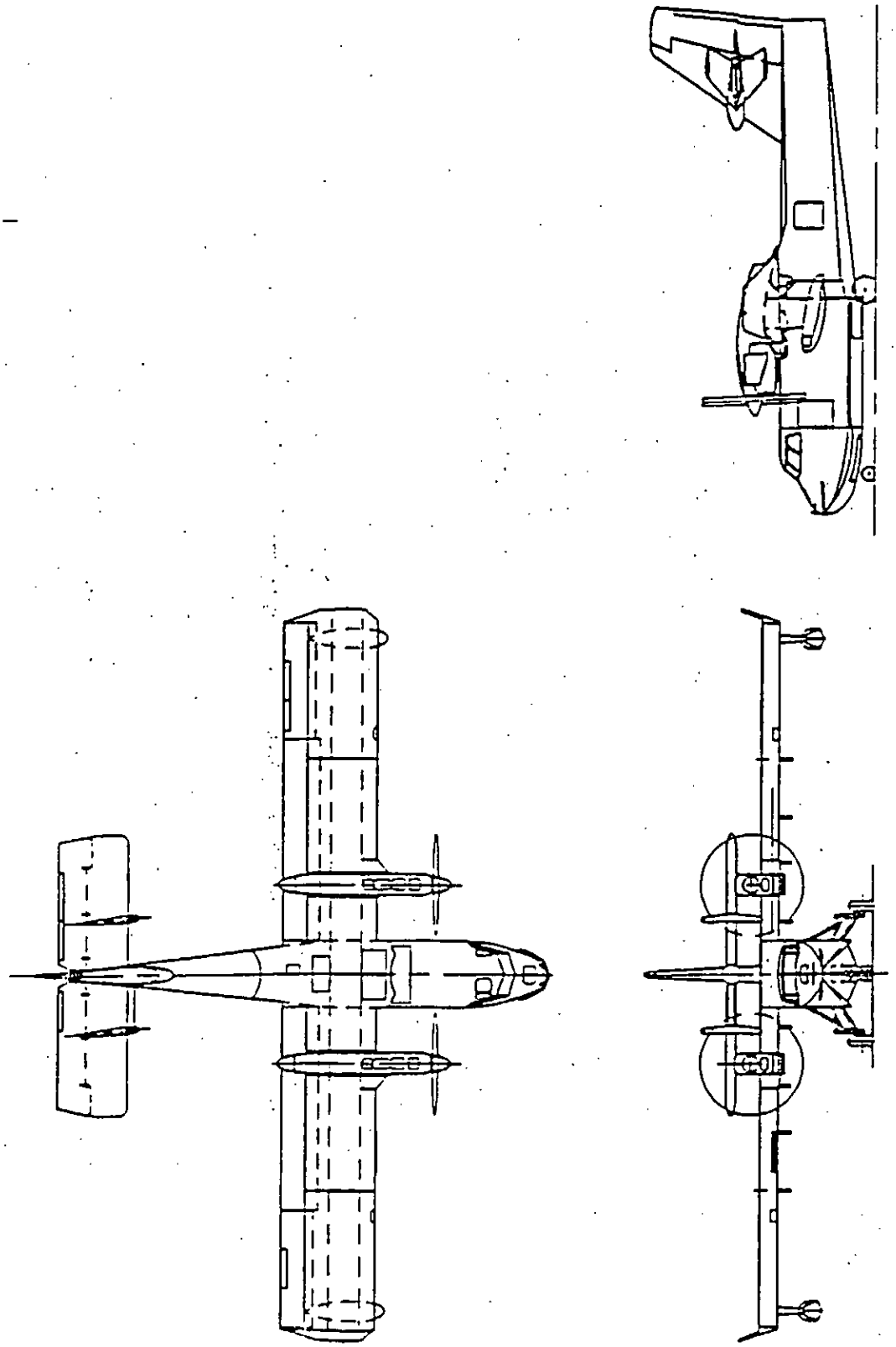

FIGURE (A)
CL-215 GENERAL ARRANGEMENT

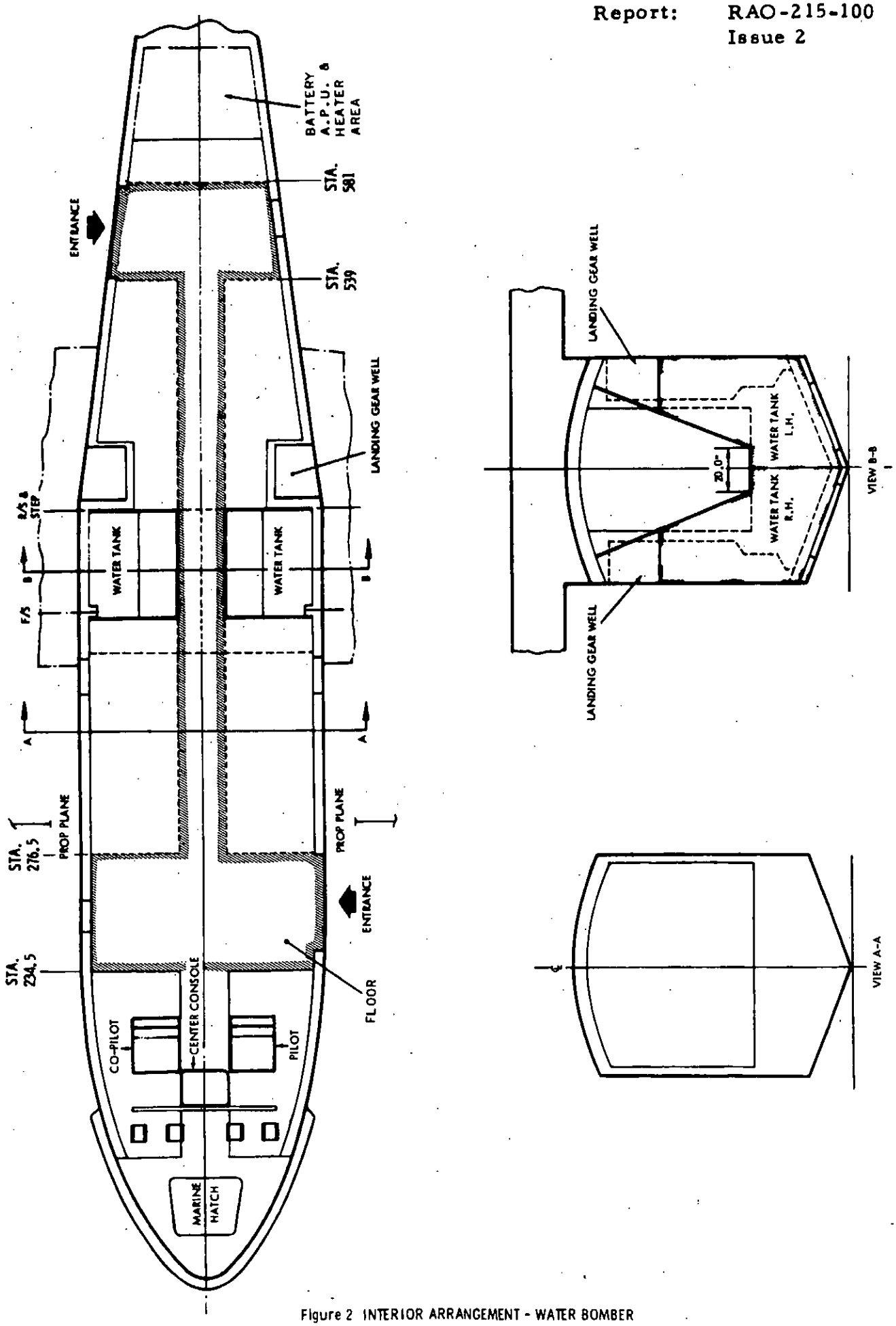

Figure 2 INTERIOR ARRANGEMENT - WATER BOMBER

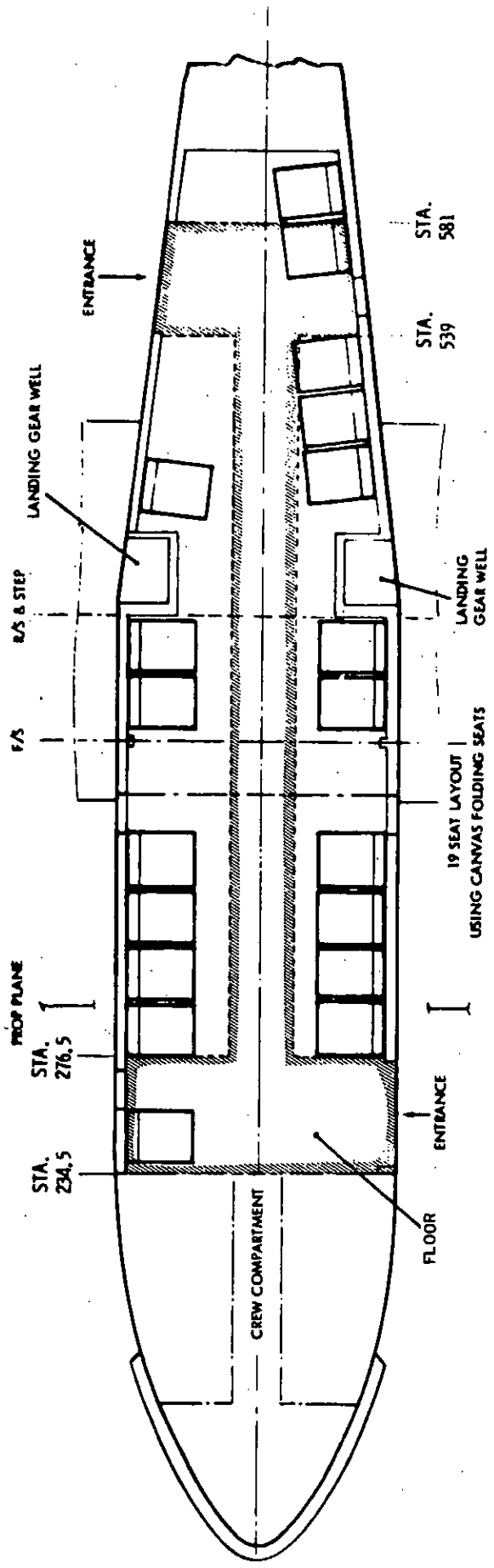

Figure 3 INTERIOR ARRANGEMENT - UTILITY AIRCRAFT

FOREWORD

The requirements approved by the Canadian Department of Transport for Type Approval, or certification, of the Canadair Model CL-215 are basically those of FAR Part 25, but with exceptions, alleviations, and additions that are considered appropriate to the particular design and to the intended usage.

The approved requirements and "special conditions" are presented in this report, which, together with FAR Part 25, effective February 1, 1965, plus Amendment No. 25-18, dated September 29, 1968, comprise the approved certification basis for the Model CL-215.

SUMMARY

The Canadair Model CL-215 is an amphibious flying boat of 43,500 pounds maximum weight, powered by two piston engines. It is intended primarily for Restricted Category special-purpose operations such as forest fire control or insecticide spraying, and intended secondarily for Utility Category general-purpose or utility operations by both governmental and commercial agencies. Canadair document RAD-215-102, "Type Specification for Canadair Model CL-215" describes the airplane in general detail. This report presents the requirements and "special conditions" approved by the Canadian Department of Transport for Type Approval, or certification, of the Model CL-215 for each of the above-noted categories.

INTRODUCTION

General

It is generally recognized by certifying agencies that design and certification standards for Restricted Category special-purpose aircraft must of necessity be related to the demands of the intended operation, and aircraft designed for special-purpose roles are therefore accorded a lower standard than is prescribed for general operations. Provisions for certification to such lower standard are contained in the Restricted

Category of former CAR Part 8, now prescribed in Federal Aviation Regulation (FAR) Part 21. The general-utility role, however, demands a standard that is significantly higher than that of the Restricted Category, and as a consequence new aircraft above 12,500 pounds gross weight that are intended for general operations must meet the same stringent certification standards that apply to scheduled air-carrier aircraft because no provisions, other than those of the Restricted Category, currently exist for alleviating large aircraft from the Transport Category requirements. When comparison is made between the vastly different operational standards applied to general versus scheduled air-carrier service, it becomes evident that an intermediate standard is in order for the certification of large aircraft intended for the general-utility role.

Department of Transport letter to Canadair of October 29 1964, recognised the need for an "intermediate transit" category applicable to large aircraft intended for general-utility operations of non-airline type, such as air taxi, charter, and executive service. The DOT has also indicated, however, that certification of large aircraft for operation under Instrument Flight Rules, or for any role involving the carriage of non-crew persons other than person directly associated with a special-purpose operation, will necessitate compliance with the substance of the Transport Category requirements, but that considerable alleviation with respect to details of demonstrating compliance with such requirements may be justified. Taken together, these stipulation have the effect of dictating the selection of FAR Part 25 (formerly CAR 4b) as the guiding standard for deriving specific certification requirements for both the special-purpose and the general-utility roles.

The approved certification standard of this report,which conforms with the above-noted concepts, is directed toward providing a basis for "dual" certification in the Restricted and Utility Categories under terms that will permit the maximum practicable payload for each category, and, additionall will permit intermixed operation in the two categories without the necessity for special inspections when converting the operation from one category to the other.

Application for DOT Type Approval for the Model CL-215 was submitted March 12, 1965, with designated airworthiness requirements of FAR Part 25, dated February 1, 1965, plus Amendment No. 25-18, dated September 29, 1968, but with exceptions and "special conditions" as set forth in this report.

RESTRICTED CATEGORY CERTIFICATION

For the special-purpose role, the Model CL-215 will be certificated in accordance with Restricted Category provisions such as those of FAR Part dated February 1, 1965, applying the airworthiness requirements of FAR Part 25, exclusive of those detail requirements designated herein as inappropriate to special-purpose operations. Additionally,

for those cases where a requirement is considered appropriate but does not adequately cater to a particular CL-215 feature, or for those cases where departure from conventional certification practice with respect to an applicable requirement is considered to be appropriate, "special conditions" are presented as a basis for certification. The detail requirements of FAR 25 have been assessed with respect to Restricted Category certification of the CL-215 for the special-purpose water bomber role, and conclusions concerning applicability of each specific requirement are presented in Appendix I. Approved special conditions are presented in Appendix II.

The objective of these requirements and special conditions is to provide a basis for certification in the Restricted Category at minimum cost, and with maximum operating weights consistent with the lower level of safety associated with special-purpose operations. It is intended that compliance with the requirements presented herein for the Restricted Category will qualify the aircraft for a variety of special-purpose operations in general accord with restrictive operating rules such as those prescribed by FAR 91.39.

UTILITY CATEGORY CERTIFICATION

For the general-utility role, it is proposed to certificate the CL-215 in general accord with the Transport Category requirements of FAR 25, but with specific alleviations concerning the extent or degree of substantiation necessary for certain requirements. The latter alleviations are presented herein as special conditions applicable to the particular requirement. Applicability of specific FAR 25 requirements to certification for the general-utility role is presented in Appendix I, and approved special conditions are presented in Appendix II.

The objective of these requirements and special conditions is to enable certification in the Utility Category with the minimum additional substantiation, over that required for the Restricted Category, but under terms which will provide both a reasonable level of flight performance (similar to CAR 4b) and reasonable assurance that the aircraft does not possess any major deficiency or characteristic which would render it incapable of full certification in the Transport Category if so desired. It is intended that compliance with the requirements presented herein for the Utility Category will qualify the aircraft for Canadian registration as a "commercial aircraft", and for operation in Canadian non-scheduled passenger-carrying commercial air service in general accord with the operating standard of DOT Information Circular No. 0/6/65, "Commercial Operations".

15 January 1966

For convenient usage in this report, the term "Restricted Category" is hereafter employed to denote the special-purpose role, and the term "Utility Category" is employed to denote the general-utility or intermediate transit role.

With respect to Appendix I, for each specific requirement of FAR 25 the degree of applicability to certification of the CL-215 is indicated by the designation C, P, or N. The symbol C indicates that the requirement is considered to be completely applicable; P indicates that the requirement is partially applicable, ie., one or more aspects of the particula requirement is considered inappropriate to certification in the noted category; N indicates that the requirement is not appropriate to certification in the noted category. Additionally, for each specific FAR 25 requirement for which a special condition is proposed, the page of Appendix II which contains the special condition is noted in Appendix I. Finally, the CAR 4b paragraph number corresponding to each specific requirement of FAR 25 is presented for convenient reference.

With respect to the special conditions of Appendix II, the specific requirement of FAR 25 to which the special condition applies is indicated by the decimal portion of the FAR 25 paragraph number, (i.e., -.321), and the category to which the special condition applies is indicated by the prefix "R" for Restricted, "U" for Utility, and by the prefix "RU" when the special condition applies to certification in both categories (i.e., RU.321).

Issue 2 of this report supersedes Issue 1, dated 12 March, 1965, in its entirety.

Revision D

This issue introduces Supplement 1 to the document, which identifies the changes to the certification standard for the addition of model CL-215-6B11 to the existing Transport Canada Type Approval A-86.

Revision E

Revises Supplement 1 to introduce final CL-215T certification standard. (no technical change)

Revision F

Changes definition of "N" in code of symbols and corrects page reference for para. 25.255 compliance.

December 1988

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART A - GENERAL							
25.1	Applicability	P	23			P	23	4b.0
	SUBPART B - FLIGHT							
	General							
25.21	Proof of Compliance					P	23	4b.100
25.23	Load Distribution Limits					C		4b.103
25.25	Weight Limits	P	24	C				4b.101
25.27	Center of Gravity Limits					C		4b.102
25.29	Empty Weight and Corresponding Center of Gravity					C		4b.101
25.31	Removable Ballast					C		4b.105
25.33	Propeller Speed and Pitch Limits					C		4b.404
	Performance: Reciprocating Engine Powered Airplanes							
25.45	General	P	25	C				4b.110
25.47	Wing Flap Position	C	26	C				4b.111
25.49	Stalling Speeds	C	26	C				4b.112
25.51	Take-Off	P	27	C				4b.113
25.55	Take-Off Speeds	P	27	C				4b.114
25.57	Accelerate-Stop Distance	P	27	P	27			4b.115
25.59	Take-Off Path	P	27	P	27			4b.116
25.61	Temperature Accountability					P	28	4b.117
25.65	Climb; All Engines Operating	P	28	C				4b.119
25.67	Climb; One Engine Inoperative	N	29					4b.120
25.69	Climb; Two Engines Inoperative					N		4b.121
25.75	Landing	P	29	C				4b.122 to 4b.125 (incl)

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART B - FLIGHT (Continued)							
	Performance: Turbine Engine Powered Airplanes							
25.101	General					N		4T-110
								4T-111
25.103	Stalling Speed					N		4T-112
25.105	Take-Off					N		4T-113
25.107	Take-Off Speeds					N		4T-114
25.109	Accelerate-Stop Distance					N		4T-115
25.111	Take-Off Path					N		4T-116
25.113	Take-Off Distance and Take-Off Run					N		4T-117
25.115	Take-Off Flight Path					N		4T-117
25.117	Climb: General					N		4T-118
25.119	Landing Climb; All-Engine-Operating					N		4T-119
25.121	Climb; One-Engine-Inoperative					N		4T-120
25.123	En Route Flight Paths					N		4T-121
25.125	Landing					N		4T-122
	Controllability and Maneuverability							
25.143	General	P	29	C				4b.130
25.145	Longitudinal Control					C		4b.131
25.147	Directional and Lateral Control					C		4b.132
25.149	Minimum Control Speed	P	30	C				4b.133
								4T.112
	Trim							
25.161	Trim	P	30	C				4b.140 to 4b.144
	Stability							
25.171	General	P	31			P	30	4b.150
25.173	Static Longitudinal Stability					P	30	4b.151
25.175	Demonstration of Static Longitudinal Stability					P	30	4b.152 to 4b.155

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART B - FLIGHT (Continued)							
	Stability (Continued)							
25.177	Static Directional and Lateral Stability					P	30	4b.157
25.181	Dynamic Longitudinal Directional and Lateral Stability					C		4b.156 4b.158
	Stalls							
25.201	Stall Demonstration					C		4b.160
25.203	Stall Characteristics					C		4b.160
25.205	Stalls; Critical Engine Inoperative	N	31	C				4b.161
25.207	Stall Warning					C		4b.162
	Ground & Water Handling Characteristics							
25.231	Longitudinal Stability & Control					C		4b.170 4b.180
25.233	Directional Stability & Control					C		4b.171
25.235	Taxiing Condition					C		4b.172
25.237	Wind Velocities					C		4b.173 4b.181
25.239	Spray Characteristics, Control, and Stability on Water					C		4b.182
	Miscellaneous Flight Requirements							
25.251	Vibration and Buffeting					C		4b.308 (c)&(d) 4b.190
25.253	High-Speed Characteristics					P	31	4b.191
	SUBPART C - STRUCTURE							
	General							
25.301	Loads					C		4b.200
25.303	Factor of Safety					C		4b.200
25.305	Strength and Deformation					C		4b.201
25.307	Proof of Structure					P	31	4b.202

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART C - STRUCTURE (Continued)							
	Flight Loads							
25.321	General					C	32	4b.210
	Flight Maneuver and Gust Conditions							
25.331	General					C		4b.213
25.333	Flight Envelope	P	32	C				4b.211
25.335	Design Airspeeds					C		4b-1;-2 4b.210(c)
25.337	Limit Maneuvering Load Factors	P	33	C				4b.211(a)
25.341	Gust Loads					C		4b.211(c)
25.343	Design Fuel and Oil Loads					C		4b.210(c)
25.345	High Lift Devices	P	33	C				4b.212
25.349	Rolling Conditions					C		4b.214
25.351	Yawing Conditions					C		4b.215
	Supplementary Conditions							
25.361	Engine Torque					C		4b.216
25.363	Side Load on Engine Mount					C		4b.216(b)
25.365	Pressurized Cabin Loads					N		4b.216(c)
25.367	Unsymmetrical Loads Due to Engine Failure					C		4b.216(d)
25.371	Gyroscopic Loads					C		4b.216(e)
25.373	Speed Control Devices					C		4b.217
	Control Surface & System Loads							
25.391	Control Surface Loads; General					C		4b.220
25.393	Loads Parallel to Hinge Line					C		4b.220(b)
25.395	Control System					C		4b.224
25.397	Control System Loads					C		4b-5 4b.220(b) 4b.224
25.399	Dual Control Systems					C		4b.225
25.405	Secondary Control System					C		4b-6 4b.227

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART C - STRUCTURE (Continued)							
	Control Surface & System Loads (Continued)							
25.407	Trim Tab Effects					C		4b.220(b
25.409	Tabs					C		4b.222
25.415	Ground Gust Conditions					C		4b-4
								4b.226
25.427	Unsymmetrical Loads					C		4b.220(c
25.445	Outboard Fins					C		4b.220(d
25.457	Wing Flaps					C		4b.221
25.459	Special Devices					C		4b.223
	Ground Loads							
25.471	General					C		4b.230
25.473	Ground Load Conditions and Assumptions					C		4b.230
25.477	Landing Gear Arrangement					C		4b.230(1
25.479	Level Landing Conditions					C		4b.231
25.481	Tail-Down Landing Conditions					C		4b.232
25.483	One-Wheel Landing Conditions					C		4b.233
25.485	Side Load Conditions					C		4b.234
25.487	Rebound Landing Conditions					C		4b.234(
25.489	Ground Handling Conditions					C		4b.235
25.491	Take-Off Run					C		4b.235(
25.493	Braked Roll Conditions					C		4b.235
								4b.235(
25.495	Turning					C		4b.235(
25.497	Tail-Wheel Yawing					N		4b.235(
25.499	Nose-Wheel Yaw					C		4b.235
								4b.235(
25.503	Pivoting					C		4b.235(
25.507	Reverse Braking					C		4b.235(
25.509	Towing Loads					C		4b.26
								4b.235
25.511	Ground Loads; Unsymmetrical Loads on Multiple-Wheel Units					C		4b.236

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted Appl	Restricted Page	Utility Appl	Utility Page	Both Appl	Both Page	CAR 4b ref.
	SUBPART C - STRUCTURE (Continued)							
	Water Loads							
25.521	General					C		4b.250
25.523	Design Weights and Center of Gravity Positions					C		4b.251
						C		4b.252
25.525	Application of Loads					C		4b.253
25.527	Hull & Main Float Load Factors					C		4b.254
25.529	Hull & Main Float Landing Conditions					C		4b.255
25.531	Hull & Main Float Take-Off Condition					C		4b.256
25.533	Hull & Main Float Bottom Pressures					C		4b.257
						C		4b.258
25.535	Auxiliary Float Loads							
25.537	Seawing Loads							
	Emergency Landing Conditions							
25.561	General					C		4b.260
25.563	Structural Ditching Provisions					N	34	4b.261
	Fatigue Evaluation							
25.571	Fatigue Evaluation of Flight Structure					P	34	4b.270
25.573	Fatigue Evaluation of Landing Gear					P	34	4b.271
	SUBPART D - DESIGN AND CONSTRUCTION							
25.601	General					C		4b.300
25.603	Materials					C		4b.301
25.605	Fabrication Methods					C		4b.302
25.607	Self-Locking Nuts					C		4b.303
25.609	Protection of Structure					C		4b.304
25.611	Inspection Provisions					C		4b.305
25.613	Material Strength Properties and Design Values					C		4b.306

CANADAIR MODEL CL-215
APPLICABILITY OF FAR PART 25

FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART D - DESIGN AND CONSTRUCTION (Continued)							
	General (Continued)							
25.615	Design Properties					C		4b.306(
25.619	Special Factors					C		4b.307
25.621	Casting Factors					C		4b.307(
25.623	Bearing Factors					C		4b.307(
25.625	Fitting Factors					C		4b.307(
25.629	Flutter, Deformation, and Fail-Safe Criteria					C	35	4b.308
	Control Surfaces							
25.651	Proof of Strength					P	35	4b.311
25.655	Installation					C		4b.312
25.657	Hinges					C		4b.313
	Control Systems							
25.671	General					C		4b.320
25.673	Two-Control Airplanes					C		4b.321
25.675	Stops					C		4b.325
25.677	Trim Systems					C		4b.322
25.679	Control System Gust Locks					P	35	4b.326
25.681	Limit Load Static Tests					C		4b.327
25.683	Operation Tests					C		4b.328
25.685	Control System Details					C		4b.329
25.689	Cable Systems					C		4b.329(
25.693	Joints					C		4b.329(
								4b.329
25.695	Power Boost & Power Operated Control System					C		4b.320(
25.697	Wing Flap Controls	C	36	C				4b.323
25.699	Wing Flap Position Indicator	C	36	C				4b.323 (e)&(f)
25.701	Flap Interconnection					C		4b.324

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART D - DESIGN AND CONSTRUCTION (Continued)							
	Landing Gear							
25.721	General					C		4b. 330
								4b. 332
25.723	Shock Absorption Tests					C		4b. 332
25.725	Limit Drop Tests					C		4b. 332
								4b. 333
25.727	Reserve Energy Absorption Drop Tests					C		4b. 332
						C		4b. 334
25.729	Retracting Mechanism							4b. 334
25.731	Wheels					C		4b. 335 (a)&(b)
						C		4b. 336
25.733	Tires					C		4b. 335
25.735	Brakes							4b. 337
								4b. 337
25.737	Skis					C		4b. 338
	Floats and Hulls							
25.751	Main Float Buoyancy					N		4b. 341 (a)&(b)
						N		4b. 341
25.753	Main Float Design					P	36	4b. 342
25.755	Hulls	P	36					
	Personnel and Cargo Accommodations							
25.771	Pilot Compartment					P	36	4b. 350
25.773	Pilot Compartment View					C		4b. 35
25.775	Windshields and Windows					P	36	4b. 35
25.777	Cockpit Controls					C		4b. 35
25.779	Motion & Effect of Cockpit Controls					C		4b. 16
								4b. 17
25.781	Cockpit Control Knob Shape					C		4b. 22

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART D - DESIGN AND CONSTRUCTION (Continued)							
	Personnel and Cargo Accommodations (Continued)							
25.783	Doors					C		4b.356 4b.356- 4b.356-
25.785	Seats, Berths, Safety Belts, and Harnesses					C		4b.358 4b.358-
25.787	Cargo and Baggage Compartments	C	36	C				4b.359
	Emergency Provisions							
25.801	Ditching					N	37	4b.361
25.803	Emergency Evacuation	P	37	C				4b.362
25.805	Flight Crew Emergency Exits					C		4b.362(
25.807	Passenger Emergency Exits	P	37	P	37			4b.362 (b)(c)(d)
25.809	Emergency Exit Arrangement					C		4b.362(
25.811	Emergency Exit Marking					C		4b.362(and -1
25.813	Emergency Exit Access					C		4b.362(and -1
25.815	Width of Main Aisle					C		4b.362
	Ventilation and Heating							
25.831	Ventilation					P	38	4b.371
25.833	Heating Systems					C		4b.372
	Pressurization							
25.841	Pressurized Cabins					N		4b.374 4b.375
25.843	Tests for Pressurized Cabins					N		4b.376

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART D - DESIGN AND CONSTRUCTION (Continued)							
	Fire Protection							
25.851	Fire Extinguishers					C		4b.380 4b.383
25.853	Compartment Interiors					C		4b.381
25.855	Cargo & Baggage Compartments					C		4b.382 4b.384
25.857	Cargo Compartment Classification					C		4b.383
25.859	Combustion Heater Fire Protection.					C		4b.386
25.863	Flammable Fluid Fire Protection.					C		4b.385
	Miscellaneous							
25.871	Leveling Marks					C		4b.391
25.875	Reinforcement Near Propellers					C		4b.390
	SUBPART E - POWERPLANT							
	General							
25.901	Installation					C		4b.400
25.903	Engines					C		4b.401
25.905	Propellers					C		4b.402
25.907	Propeller Vibration					C		4b.403
25.925	Propeller Clearance					C		4b.405
25.929	Propeller Deicing.					C		4b.406
25.933	Reversing Systems					C		4b.407 4b.407
25.937	Turbopropeller - Drag Limiting Systems					N		4b.40
25.939	Turbine Engine Powerplant Operating Characteristics					N		4b.40

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART E - POWERPLANT (Continued)							
	Fuel System							
25.951	General			C*		C		4b.410
25.953	Fuel System Independence					C		4b.411
25.955	Fuel Flow					C		4b.413
25.957	Flow Between Interconnected Tanks					C		4b.418
						C		4b.416
25.959	Unusable Fuel Supply							
25.961	Fuel System Hot Weather Operation					C		4b.417
						C		4b.420
25.963	Fuel Tanks; General					C		4b.421
25.965	Fuel Tank Tests					C		4b.422
25.967	Fuel Tank Installations					C		4b.423
25.969	Fuel Tank Expansion Space					C		4b.424
25.971	Fuel Tank Sump					C		4b.425
25.973	Fuel Tank Filler Connection							
25.975	Fuel Tank Vents & Carburator Vapor Vents					C		4b.426
						C		4b.427
25.977	Fuel Tank Outlet					C		4b.428
25.979	Under-Wing Fueling Provisions							
	Fuel System Components							
25.991	Fuel Pumps					C		4b.430
25.993	Fuel System Lines and Fittings					C		4b.432
25.995	Fuel Valves					C		4b.434
25.997	Fuel Stainer or Filter					C		4b.435
25.999	Fuel System Drains					C		4b.436
25.1001	*Fuel Jettisoning System	P	38	C				4b.437
	Oil System							
25.1011	General			C ⁂	40A	C		4b.440
25.1013	Oil Tanks			C ⁂	40A	C		4b.441
								4b.443
25.1015	Oil Tank Tests			C ⁂	40B	C		4b.442

* 25.1001 as amended by Amendment No.25018, effective September 29,1968.

⁂ Alcohol System, Rev. "C". Refer to Page 40A.

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		Appl	Page	Appl	Page	Appl	Page	
	SUBPART E - POWERPLANT (Continued)							
	Oil System (Continued)							
25.1017	Oil Lines and Fittings.....			C ⁂	40C	C		4b.444
25.1019	Oil Strainer or Filter.....			C ⁂	40C	C		4b.447
25.1021	Oil Drains.....			C ⁂	40C	C		4b.448
25.1023	Oil Radiators.....					C		4b.446
25.1025	Oil Valves.....			C⁂	40C	C		4b.445
25.1027	Propeller Feathering System...					C		4b.449
								4b.449-
	Cooling							
25.1041	General.....					C		4b.450
25.1043	Cooling Tests.....					C		4b.451
25.1045	Cooling Test Procedures.....					C		4b.452
								4b.454
	Induction System							
25.1091	Air Induction.....					C		4b.460
25.1093	Induction System Deicing and Anti-Icing Provisions.....					C		4b.461
25.1101	Carburator Air PreheaterDesign					C		4b.462
25.1103	Induction System Ducts.....					C		4b.463
25.1105	Induction System Screens.....					C		4b.464
25.1107	Inter-Coolers & After-Coolers.					C		4b.466
	Exhaust System							
25.1121	General.....					C		4b.467(
								4b.467-
25.1123	Exhaust Piping.....					C		4b.467(
25.1125	Exhaust Heat Exchangers.....					C		4b.467(
								4b.467(
25.1127	Exhaust Driven Turbo-Superchargers.....					C		4b.467 less (a)-(d

⁂ Alcohol System, Rev. "C"
Refer to Page 40A.

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART E - POWERPLANT (Continued)							
	Powerplant Controls and Accessories							
25.1141	Powerplant Controls; General. . .					C		4b.470
25.1143	Throttle & Anti-Detonant Injection System Controls					C		4b.471
25.1145	Ignition Switches					C		4b.472
25.1147	Mixture Controls					C		4b.473
25.1149	Propeller Speed and Pitch Controls					C		4b.474(
25.1153	Propeller Feathering Controls . .					C		4b.474 less (a)
25.1155	Reverse Thrust Controls					C		4b.474(
25.1157	Carburator Air Temperature Controls					C		4b.476
25.1159	Supercharger Controls					C		4b.476(
25.1161	Fuel Jettisoning System Controls					C		4b.475
25.1163	Powerplant Accessories					C		4b.477
25.1165	Engine Ignition Systems.					C		4b.478
	Powerplant Fire Protection							
25.1181	Designated Fire Zones; Regions Included					P	38	4b.480
25.1183	Lines and Fittings					C		4b.433
								4b.483
25.1185	Flammable Fluids					C		4b.481
25.1187	Drainage and Ventilation of Fire Zones.					C		4b.489
25.1189	Shutoff Means					C		4b.482
25.1191	Firewalls					C		4b.486
25.1193	Cowling and Nacelle Skin.					C		4b.487
25.1195	Fire Extinguishing Systems					P	39	4b.480 (a)(7)
								4b.484
25.1197	Fire Extinguishing Agents					C		4b.484
25.1199	Extinguishing Agent Containers. .					C		4b.484 (c) (d)

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART E - POWERPLANT (Continued)							
	Powerplant Fire Protection (Continued)							
25.1201	Fire Extinguishing System Material					C		4b.484 less (a)-(d)
25.1203	Fire-Detector System					C		4b.485
25.1205	Fire Protection; Other Components					C		4b.490
	SUBPART F - EQUIPMENT							
	General							
25.1301	Function and Installation	C	39	C				4b.600 4b.601
25.1303	Flight and Navigation Instruments					P	39	4b.603
25.1305	Powerplant Instruments					C		4b.604
25.1307	Miscellaneous Equipment					C		4b.605
25.1309	Equipment Systems and Installations					C		4b.606
	Instruments; Installation							
25.1321	Arrangement and Visibility					P	40	4b.610 4b.611
25.1323	Airspeed Indicating System					C		4b.612
25.1325	Static Air Vent & Pressure Altimeter Systems					C		4b.612
25.1327	Magnetic Direction Indicator					C		4b.612
25.1329	Automatic Pilot System					C		4b.612
25.1331	Instruments Using a Power Supply					C		4b.612
25.1333	Duplicate Instrument Systems					C		4b.612 less (a) -(c
25.1337	Powerplant Instruments					C		4b.613

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FAR 25	TITLE or SUBJECT	Restricted	Utility	Both	CAR 4b ref
	SUBPART F - EQUIPMENT (Continued)				
	Electrical Systems and Equipment				
25.1351	General			C	4b.621 4b.622
25.1353	Electrical Equipment and Installations			C	4b.625 4b.625
25.1355	Distribution System			C	4b.623
25.1357	Circuit Protective Devices			C	4b.624 and -
25.1359	Electrical System Fire and Smoke Protection			C	4b.626
25.1363	Electrical System Tests			C	4b.627
25.1369	Lightning Strike Protection			C	4b.628
	Lights				
25.1381	Instrument Lights			C	4b.63
25.1383	Landing Lights			C	4b.63
25.1385	Position Light System Installation			C	4b.63
25.1387	Position Light System Dihedral Angles			C	4b.63
25.1389	Position Light Distribution and Intensities			C	4b.63 4b.63
25.1391	Minimum Intensities in the Horizontal Plane of Forward and Rear Position Lights			C	4b.18
25.1393	Minimum Intensities in any Vertical Plane of Forward and Rear Position Lights			C	4b.19
25.1395	Maximum Intensities in Over-Lapping Beams of Forward and Rear Position Lights			C	4b.20

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART F - EQUIPMENT (Continued)							
	Lights (Continued)							
25.1397	Colour Specifications					C		4b.635
25.1399	Riding Light					C		4b.636
25.1401	Anticollision Light System					C		4b.27 4b.637
	Safety Equipment							
25.1411	General					C		4b.645 4b.646
25.1413	Safety Belts					C		4b.643 4b.644
25.1415	Ditching Equipment					N	40	4b.645 4b.647
25.1419	Ice Protection					C	40	4b.640
	Miscellaneous Equipment							
25.1431	Electronic Equipment					C		4b.650
25.1433	Vacuum Systems					C		4b.658
25.1435	Hydraulic Systems					C		4b.653 4b.654 4b.655
25.1439	Protective Breathing Equipment					C		4b.380 4b.651
25.1441	Oxygen Equipment and Supply					C		4b.651
25.1443	Minimum Mass Flow of Supplemental Oxygen					C		4b.651
25.1445	Equipment Standards for the Oxygen Distributing System					C		4b.651 4b.651-5(a)
25.1447	Equipment Standards for Oxygen Dispensing Units					C		4b.651
25.1449	Means for Determining Use of Oxygen					C		4b.651

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART F - EQUIPMENT (Continued)							
	Miscellaneous Equipment (Continued)							
25.1451	Fire Protection for Oxygen Equipment					C		4b.651
25.1453	Protection of Oxygen Equipment from Rupture					C		4b.651
25.1455	Draining of Fluids Subject to Freezing					C		4b.660
25.1457	Cockpit Voice Recorders					N	40	4b.656
	SUBPART G - OPERATING LIMITATIONS & INFORMATION							
25.1501	General					C	41	4b.700
	Operating Limitations							
25.1503	Airspeed Limitations; General					C		4b.710
25.1505	Maximum Operating Limit Speed					C	41	4b.711
25.1507	Maneuvering Speed					C		4b.713
25.1511	Flap Extended Speed					C		4b.714
25.1513	Minimum Control Speed					C		4b.717
25.1515	Landing Gear Speeds					C		4b.715
								4b.716
25.1519	Weight, Center of Gravity and Weight Distribution					C		4b.719
25.1521	Powerplant Limitations					C		4b.718
25.1523	Minimum Flight Crew					C		4b.720
25.1525	Kinds of Operation					C		4b.72
25.1527	Maximum Operating Altitude					C		4b.722
25.1531	Maneuvering Flight Load Factors					C		4b.723
25.1533	Additional Operating Limitations for Turbine Engine Powered Airplanes					N		4T.12

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FAR 25	TITLE or SUBJECT	Restricted		Utility		Both		CAR 4b ref.
		Appl	Page	Appl	Page	Appl	Page	
	SUBPART G - OPERATING LIMITATIONS & INFORMATION (Continued)							
	Markings and Placards							
25.1541	General					C	41	4b.730
25.1543	Instrument Markings; General					C		4b.731
25.1545	Airspeed Limitation Information					C		4b.732
25.1547	Magnetic Direction Indicator					C		4b.733
25.1549	Powerplant Instruments					C		4b.734
25.1551	Oil Quantity Indicator					C		4b.735
25.1553	Fuel Quantity Indicator					C		4b.736
25.1555	Control Markings					C		4b.737
25.1557	Miscellaneous Markings and Placards					C		4b.362(g 4b.738 (a)(b)(c)
25.1561	Safety Equipment					C		4b.645 4b.646 4b.738(
25.1563	Airspeed Placard					C		4b.738 less (a)-(d)
	Airplane Flight Manual							
25.1581	General					P	41	4b.740
25.1583	Operating Limitations					P	41	4b.719 4b.736 4b.741 4T.743(a
25.1585	Operating Procedures					P	41	4b.361 4b.742
25.1587	Performance Information					P	41	4b.117 4b.743 4T.123 4T.743
- -	Maintenance Manual					C	42	- -

APPENDIX II

SPECIAL CONDITIONS FOR CERTIFICATION OF THE CANADAIR MODEL CL-215

SUBPART A - GENERAL

Applicability

R.1 For certification in the Restricted Category, provisions such as those of 21.25(a)(1) may be applied in lieu of 25.1(b). (The former provisions authorize waiver of specific requirements considered to be inappropriate for the special purpose for which the aircraft is to be used.).

RU.1 Wherever employed in Part 25, or in Appendix II of this report, the term "this part", or "this subpart", or reference to a specific paragraph number, is interpreted to exclude those requirements designated "not appropriate" in Appendix I of this report, and to include the associated special conditions presented in Appendix II of this report.

SUBPART B - FLIGHT

RU.21 Proof of Compliance

-1 It will be acceptable to demonstrate compliance with a particular requirement by tests at one weight only, and at one altitude range only (i.e., low, intermediate, or high), provided the installed engine power is established in accord with 25.45 over the entire altitude range for which approval is desired.

-2 For those tests in which results may be significantly influenced by airplane weight, the weight selected for test should be the maximum take-off weight or the maximum landing weight, as appropriate, unless reason exists to anticipate that a lesser weight may be more critical.

SUBPART B - FLIGHT (Continued)

RU.21 Proof of Compliance (Continued)

-3 Permissible test tolerences of 25.21 will apply with respect to the selected test weight and to other designated factors.

-4 Representative performance data resulting from tests conducted in accordance with Items 1 through 3 above may be extrapolated over the entire range of weights, altitudes, and ambient temperatures for which such data are desired.

-5 Compliance with flying quality test procedures and requirements in which stalling speed is prescribed may be based upon stalling speeds corresponding to forward c.g. position, irrespective of the c.g. position at which the particular flying quality test is conducted, unless reason exists to anticipate that use of the stalling speed apporpriate to the aftc.g. position may be more critical.

-6 Function and reliability tests may be directed solely toward those features, systems, and components essential to safe operation of the aircraft. Satisfactory operation of the aircraft through 50 representative water-drop cycles with routine maintenance during the interim period, will be acceptable for compliance with the F & R requirements of FAR 21.25, provided the airplane is in the final configuration with respect to systems at the start of the Type Approval flight demonstrations, that the systems are cycled during such flight demonstrations in accordance with a comprehensive cycling program, and that records are maintained of the cycle test results.

R.25 Weight Limits

-1 Maximum weight limits for the Restricted Category may be greater than the corresponding weight limits of the Utility Category.

-2 For certification in the Restricted Category, it will be acceptable to establish maximum weight limits for water take-off operations compatible with an approved procedure for on-loading water while planing "on the step", and to demonstrate compliance with the buoyancy requirements of 25.755 at a

lesser weight selected as a limitation for the static flotation condition.

R.45 Performance - General

The preceding issue of CAR 4b (dated 1 September 1949) contained provisions for the certification of non-air-carrier Transport Category aircraft (ref. 4b.92) which precluded the necessity for establishing the great variety of performance information necessary for application of the U.S. scheduled air carrier operating rules. That concept will be acceptable for certification in the Restricted Category as prescribed below:

-1 The following items of performance information will be acceptable in lieu of the performance information prescribed by 25.45(a):

(a) The all-engine take-off distance to 50 feet height for standard sea level conditions, smooth level surface, no wind, determined in accordance with Special Condition R.51. For land operation, the airplane weight must be the maximum take-off weight; for water operation, the airplane weight must be the maximum weight approved for the static flotation condition in accordance with Special Condition R.25-1.

(b) The unfactored distance to land from a height of 50 feet, for standard sea level conditions, maximum landing weight, smooth level surface, no wind, determined in accordance with Special Condition R.75.

(c) The all-engine climb performance for standard sea level conditions, maximum take-off weight, in the take-off configuration, landing gear retracted, take-off power, and the climb speed existing at the point of 50-foot height following all-engine take-off.

SUBPART B - FLIGHT (Continued)

R.45 Performance - General (Continued)

-1 (d) Power-off stalling and stall warning speeds, in the landing configuration with maximum landing weight, and in the take-off and water-drop configurations with maximum take-off weight and also with maximum take-off weight less jettisonable cargo load, determined in accordance with 25.49.

(e) Power-on stalling and stall warning speeds, in the configuration for the particular special-purpose operation, with maximum take-off weight, determined in accordance with Special Condition R.49.

(f) Additional items of performance information having a direct bearing on safe operation of the airplane in the particular special-purpose role, e.g. the total distance to land from 50 feet, to on-load water cargo, and to take-off to 50 feet.

R.47 Wing Flap Position

Wing flap positions may be selected by the applicant as appropriate for the particular special-purpose operation.

R.49 (Stall Warning Speed & Stall Speed - Special-Purpose Configuration).

In the configuration selected by the applicant for conduct of the particular special-purpose operation, with the most adverse center of gravity with respect to stall characteristics, maximum weight, and with symmetrical power as required to maintain substantially level flight at the stall-warning speed, the stall-warning speed and the approximate stalling speed must be established by tests conducted in accordance with 25.49(c)(1), and compliance must be shown with the flight requirements of 25.203(a). The stall speed and stall-warning speed thus established must be presented in the Airplane Flight Manual. When stalled with greater power up to the Maximum Continuous rating, the airplane must not become uncontrollable.

SUBPART B - FLIGHT (Continued)

R.51
R.55 Take-Off
R.57
R.59

-1 Take-off distance determination with presumed engine failure is an emergency condition considered inappropriate to certification in the Restricted Category. In lieu of the take-off distance established in accordance with the provisions of 25.55 concerning take-off speeds, and 25.57 concerning accelerate-stop distance, and 25.59 concerning take-off path, it will be acceptable to establish the take-off distance as the all-engine distance from start to 50 feet height with all engines operating within prescribed take-off power limitations, and with airspeeds, operating procedure, and aircraft configuration as selected by the applicant.

-2 Procedures for aborting the take-off, and the corresponding approximate distance requirements, must be established and demonstrated as appropriate for the particular special-purpose operation. It will be acceptable to present the associated distance as an incremental distance or percentage factor with respect to the corresponding all-engine take-off distance established in accordance with special condition R.51-1 above.

U.57 Accelerate-Stop Distance

It will be acceptable to establish the accelerate-stop distance in general accord with 25.57 but on the basis of separate acceleration and deceleration distance data, provided one acceptable accelerate-stop run is conducted at the maximum V_1 speed on water, and at the maximum K.E. condition on land, to establish the "inertia distance" and to verify braking capability, provided the resulting distance is suitably factored to account for probable deviations in service.

U.59 Take-Off Path

It will be acceptable to provide take-off path data in general accord with 25.59, but to a maximum height of 50 feet only.

SUBPART B - FLIGHT (Continued)

RU.61 Temperature Accountability

-1 Operating correction factors for the effect of temperature upon take-off weight at constant take-off distance (i.e. runway length), as prescribed by 25.61, are intended for application of US. scheduled air-carrier operating rules and are considered inappropriate to aircraft of the subject type.

-2 For compliance with the requirements of 25.61, it will be acceptable to provide performance data concerning take-off distance, and other items of performance as selected by the applicant, for a range of ambient temperatures above and below standard, together with appropriate operating speeds. Performance data for this purpose may be determined by extrapolation in accordance with Special Condition RU.21-4.

-3 Consistent with FAR 25.61, temperature accountability need not be applied in determining compliance with prescribed climb performance requirements; humidity accountability will be applied to all Flight Manual performance information in accordance with the "rational" humidity variation prescribed by 25.101(b), i.e. 80% RH at and below ISA, decreasing linearly to 34% RH at and above ISA + 50°F.

R.65 Climb: All Engines Operating

-1 For the conditions prescribed in 25.65(a), Items (1) through (6), except with wing flap position, airspeed, and altitude selected by the applicant for conduct of the particular special-purpose operation, a minimum rate of climb of 300 fpm under standard conditions will be acceptable, provided a rate of climb equal, in fpm, to 9.0 V_{so} is promptly available upon demand by dumping jettisonable liquid cargo or by application of take-off power, or both, and further provided the airplane is demonstrated to be capable of continued safe flight following failure of the most critical engine, and subsequent dumping of jettisonable liquid cargo, at any point in the flight path following lift-off in accordance with the all-engine take-off procedure of Special Condition R.51-1. For this special condition, V_{so} corresponds to the weight after jettisoning.

SUBPART B - FLIGHT (Continued)

-2 Climb performance in the landing configuration must be established for the conditions prescribed in 25.65(b), Items (1) through (7). A minimum requirement for this condition is considered inappropriate to certification in the Restricted Category.

R.67 Climb; One Engine Inoperative

Climb performance with one engine inoperative is an emergency condition considered inappropriate to certification in the Restricted Category.

R.75 Landing

The horizontal distance necessary to land and come to a stop (or to a speed of 3 knots for water landings) must be established in general accord with the provisions of 25.75 except items (a)(1) through (a) (3). In lieu of the provisions of 25.75(a)(1) through (a)(3), it will be acceptable to utilize a configuration, airspeed, and operating technique as selected by the applicant, including use of reverse thrust provided the propeller reversing system is designed in general accord with the reversing system requirements of 25.933(a).

R.143 Controllability and Manoeuverability - General

Longitudinal, lateral, and directional controllability must be demonstrated for the airplane configuration, trim condition, airspeed and symmetrical power condition selected by the applicant for conduct of the particular special-purpose operation. Controllability must be adequate for safe performance of the intended special-purpose operation under such unfavorable operating conditions as may reasonably be anticipated in actual operations.
Capability of dumping jettisonable

SUBPART B - FLIGHT (Continued)

cargo and safely continuing flight, following failure of the critical engine at the most critical point of the special-purpose operation and the corresponding scheduled airspeed, must be demonstrated.

R.149 Minimum Control Speed and Scheduled Special-Purpose Airspeed.

-1 In addition to the airplane configuration and trim condition prescribed by 25.149, V_{mc} must be determined with the airplane in the configuration and trim condition selected by the applicant for conduct of the particular special-purpose operation. The limit value of 1.2 V_S prescribed by 25.149 is not applicable to this condition.

-2 Time delays appropriate to recognition of engine failure at the scheduled special-purpose airspeed, and to each of the subsequent crew actions, must be established together with the associated loss in airspeed, if any, following engine failure.

-3 The minimum scheduled special-purpose airspeed must be not less than the sum of the V_{mc} established in accordance with Special Condition R.149-1 above, plus the speed loss established in accordance with R.149-2 above, plus sufficient margin to ensure that airspeeds greater than V_{mc} can be maintained in service throughout the recovery manoeuvre.

R.161 Trim - (One Engine Inoperative)

The one-engine-inoperative trim provisions of 25.161(d) are considered inappropriate to certification in the Restricted Category.

RU.171 through RU.177 Stability - General

-1 Stability must be demonstrated in general accord with the provisions of 25.173 through 25.177, the stability criteria of which are considered to be desirable objectives for certification in both the Restricted and Utility Categories. Any indications of non-compliance with a particular portion of a specific stability requirement must be fully assessed with respect to that requirement, and non-compliance may be acceptable provided:

SUBPART B - FLIGHT (Continued)

RU.171 through RU.177 Stability - General (Continued)

(a) Substantial compliance with the specific stability requirement is shown for all conditions, relevant to the requirement, that may reasonably be expected to be encountered in operations conducted in accordance with established operating procedures, and

(b) The particular item or condition of non-compliance does not jeoparidze safe-operation of the airplane in the relevant role or roles.

R.171 Stability - (Special-Purpose Operation)

Suitable longitudinal, lateral, and directional stability must be demonstrated for the airplane configuration, trim condition, airspeed, and symmetrical power operating condition selected by the applicant for conduct of the particular special-purpose operation.

R.205 Stalls - Critical Engine Inoperative

The one-engine-inoperative stall demonstration requirements of 25.205 are considered inappropriate to certification in the Restricted Category.

RU.253 High-Speed Characteristics

For compliance with the provisions of 25.253, compressibility effects need not be considered for Mach numbers of 0.5M and less. (See Special Conditions RU.321 and RU.1505).

SUBPART C- STRUCTURE

RU.307 Proof of Structure

-1 Compliance with proof of strength and deformation requirements of 25.307 for a particular composite structure or for the entire airframe, except elevators, ailerons, and rudder, may be completely substantiated by analysis alone,

SUBPART C- STRUCTURE (Continued)

RU.307 Proof of Structure (Continued)

provided that the structure is of conventional design, and the analysis is rational and based upon conservative assumptions, and further provided the detail design and construction are in accordance with accepted principles and standards and excdlude features or details which experience has shown to be hazardous or unreliable. The acceptability of questionable design details, or of structural components that are not amenable to precise analysis, must be established by test. (See Special Conditions RU.651, re tests of control surfaces, and RU.571 re fatigue tests).

-2 Compliance with proof of strength and deformation requirements for the more stringent of the weight and loading conditions appropriate to the Restricted or Utility Categories will qualify the aircraft for conversion in service from Restricted Category operation to Utility Category operation without the inspection prescribed for that purpose by FAR 21.187(b).

RU.321 through RU.459 Flight Loads - General

For compliance with applicable flight load requirements, compressibility effects need not be considered for Mach number values of 0.5M and less. (See Special Conditions RU.253 and RU.1505).

R.333 Flight Envelopes

Flight Envelopes for compliance with the provisions of 25.333 may be established compatible with the airspeed and severity of manoeuvres anticipated for conduct of particular special-purpose operations, and compatible with the aircraft's actual wing-lift characteristics.

R.337 Limit Manoeuvering Load Factors

-1 Limit manoeuvering load factors for compliance with the provisions of 25.337 may be selected by the applicant consistent with Special Condition R.333, but for no condition may the selected positive and negative factors be less than those prescribed by 25.337.

-2 For certification of the CL-215 in the Restricted Category, the limit manoeuvering load factors must be not less than the following:

(a) Positive Factor:

(i) +3.25g, with maximum speed equal to the design flap speed, V_f, for the special-purpose wing flap position chosen in accordance with Special Condition R.47.

(ii) +3.0g, with maximum speed equal to V_d, flaps up.

(b) Negative Factor:

-1.0g, with maximum speed equal to V_c, flaps up.

-3 Limit manoeuver load factors prescribed by 25.337 are considered applicable for operations involving carriage of persons, equipment, and supplies associated with approved special-purpose operations.

R.345 High Lift Devices

If wing flaps and other high-lift devices are intended for use during flight conditions additional to take-off, approach and landing, for certification in the Restricted Category it will be acceptable for the applicant to select design criteria for such additional conditions compatible with the manoeuvering speeds and severity of manoeuvers anticipated for the particular special-purpose operation, and also compatible with the aircraft's maximum lift coefficient with high-lift devices extended to the appropriate position. (Note: For the CL-215 estimated special-purpose wing flap position of 15^{o}, a design speed of 140 knots, with design manoeuver factor of +3.25g, and design gust velocity of 66 fps, is considered to satisfy this requirement.)

SUBPART C - STRUCTURE (Continued)

RU.563 Structural Ditching Provisions

The structural ditching provisions of 25.563 are considered inappropriate to certification of flying boats.

RU.571
RU.573 Fatigue Evaluation

For unpressurized aircraft such as the CL-215, it will be acceptable for compliance with the fatigue requirements of 25.571 and 25.573 to be demonstrated on the basis of design considerations alone, without comprehensive fatigue analyses or cycle tests, provided the structure incorporates known, sound, fatigue-design materials and principles, such as redundancy, crack stoppers, etc., and provided the flight structure is designed in accordance with the fail-safe concepts of CAM 4b, Appendix H, and with the fail-safe strength provisions of 25.571(c), and further provided that fail-safe or safe-life design details not amenable to fatigue analysis are substantiated by sample or specimen tests. For items designed to the safe-life concept, the design load spectrum must be submitted for specific DOT approval.

SUBPART D - DESIGN AND CONSTRUCTION

RU. 629 Flutter, Deformation, and Fail-Safe Criteria

For comparatively low-performance aircraft, such as the CL-215, the general approach and criteria of CAR 4b. 308, including Amendment 4b-11, may be applied for demonstrating compliance with all provisions of 25. 629, providing relevant features and characteristics of the CL-215 propeller-engine-airframe combinations are shown to be similar to an installation having a satisfactory service history.

RU. 651 Control Surfaces - Proof of Strength

Compliance with proof of strength requirements for fixed control surfaces (i. e., fin and stabilizer) may be substantiated by analysis alone, provided the structure is of conventional design and further provided the detail design and construction are in accordance with accepted principles and standards. For purpose of this requirement, wing flaps are not considered to be control surfaces. (See Special Condition RU. 307).

RU. 679 Control System - Gust Locks

Compliance with all objectives of the gust lock provisions of 25. 679 may be satisfied by the use of conspicuously exposed devices attached to the pilot's flight controls, provided the devices can be readily attached and detached, and provided provisions are made for convenient stowage in the pilot compartment.

SUBPART D - DESIGN AND CONSTRUCTION (Continued)

R.697 Wing Flap Controls
R.699 Wing Flap Position Indicator

The requirements of 25.697 and 25.699 apply also to the wing flap position(s) selected by the applicant for conduct of the particular special-purpose operation in accordance with Special Condition R.47.

R.755 Hulls and Floats - Hulls

For certification in the Restricted Category, it will be acceptable for compliance with the buoyancy provisions of 25.755(a) to be demonstrated with assumed flooding of the most critical of any one single compartment. (See Special Condition R.25-2).

RU.755 Hulls and Floats - Hulls

Compartments for carriage of liquid cargo may be considered as buoyant compartment, provided such compartments are suitably watertight.

RU.771 Pilot Compartment

The provisions of 25.771(e) requiring a lockable door between pilot and passenger compartments are considered inappropriate to aircraft of the subject type.

RU.775 Windshields and Windows

For comparatively low-performance aircraft, such as the CL-215, compliance with windshield birdproof strength requirements may be substantiated by analysis alone, without test demonstrations, provided design data developed by FAA, and data or prior approved designs, are applied in the design of the windshield and supporting structure.

R.787 Cargo and Baggage Compartments

For compliance with the crew protection provisions of 25.787(c) with respect to restraint of the water cargo, it will be acceptable for account to be taken of the restraint or energy absorption of all intervening bulkheads between the crew and water compartments.

SUBPART D - DESIGN AND CONSTRUCTION (Continued)

RU.801
RU.1415 Ditching Certification and Equipment

The ditching certification requirements and ditching equipment provisions of 25.801, and 25.1415, respectively, are considered inappropriate to flying boat , provided all prescribed ditching emergency exits are above the water level for the critical flotation condition of FAR 25.755 with two adjacent compartments flooded.

R.803 Emergency Evacuation

For certification in the Restricted Category, in lieu of the 20-inch width of passageway prescribed by 25.813, in applying the provisions of 25.803(c) the minimum width of passageway may be selected by the applicant consistent with the need for ready passage between compartments by flight crew members and by personnel of comparable agility.

R.807 Passenger Emergency Exits

For certification in the Restricted Category with accommodations for the carriage of non-flight-crew persons, means for convenient and expeditious emergency evacuation of such persons must be provided. (See Special Condition RU.801)

U.807 Passenger Emergency Exits

-1 For certification in the Utility Category, the inside step-up and outside step-down heights prescribed by 25.807(a)(2) for Type II over-wing exits are considered appropriate to all Type II side exits of flying boats. Additionally, for those cases where Type II exits are embodied, location in the forward part of the passenger compartment is considered equivalent, over the probable range of flotation trim angles associated with hull damage, to location in the rearward part of the compartment. (See Special Condition RU.801)

SUBPART D - DESIGN AND CONSTRUCTION (Continued)

-2 In establishing passenger seating capacity above 19 for compliance with 25.807(c), credit for oversize exits may be granted on the basis of an evacuation demonstration.

RU.831 Ventilation

The requirements of 25.831(e) for ability to control temperature and quantity of ventilation air supplied to crew compartment independent of temperature and quantity supplied to passenger compartment is considered inappropriate.

SUBPART E - POWERPLANT

RU.965 Fuel Tank Tests

Use of non-metallic tanks with features of design, fabrication, and installation similar to those of the non-metallic centre-section tanks of the CL-44D4 will serve to make the slosh tests of 25.965(c) not applicable.

R.1001 Fuel Jettisoning System

For certification in the Restricted Category, an approved means for discharge of jettisonable cargo, that is capable of reducing the aircraft weight from the maximum take-off weight to the maximum landing weight, will be acceptable in lieu of a fuel jettisoning system for complete compliance with the requirements of 25.1001.

RU.1181 Designated Fire Zones

The auxiliary power unit compartment or area need not be considered as a fire zone with respect to the firewall, fire detection, and fire extinguishant requirements of 25.1191, 25.1195, and 23.1203, respectively, provided compliance is shown with all other fire protection requirements in addition to the following:

SUBPART E - POWERPLANT (Continued)

(a) The unit must be placarded against operation in flight.

(b) The installation must embody safeguards to ensure that the probability of intentional operation in flight is extremely remote.

(c) The area or compartment containing the APU must be constructed of fire resistant materials.

(d) The fuel supply line must embody shut-off valves at both the tank and APU, and the quantity of fuel in the line must not be sufficient to constitute a fire hazard.

(e) A hand fire extinguisher must be located convenient to the APU.

RU.1195 Fire Extinguishing Systems

Fire extinguishment need not be provided in the power section of reciprocating engine installations which have a diaphragm isolating the engine power section from the engine accessory section, provided compliance is shown with all other fire protection requirements of FAR 25.1181 through 25.1205, and further provided the engine-nacelle combination generally conforms to an installation which has been shown by representative service experience to be safe without Zone 1 extinguishment.

SUBPART F - EQUIPMENT

R.1301 Function and Installation

The provisions of 25.1301 and 25.1309 are considered to be equally applicable to the equipment, devices, and installations peculiar to the intended special-purpose operation.

RU.1303 Flight and Navigational Instruments

The flight and navigational instruments prescribed by 25.1303 for certification, and by DOT Information Circular No. 0/6/65, Para 4.7, for IFR operation, together with applicable arrangement and visibility requirements are

SUBPART F - EQUIPMENT (Continued)

considered appropriate only to the pilot. It will be acceptable for the co-pilot's instrument complement and arrangement to be selected by the applicant, provided the layout of the co-pilot's panel is in general accord with the layout of the pilot's panel.

RU.1321 Instrument Arrangement and Visibility

(See Special Condition RU.1303.)

RU.1415 Ditching Equipment

(See Special Condition RU.801.)

RU.1457 Cockpit Voice Recorder

Cockpit voice recorder is considered inappropriate because of Canadian operating rules.

SUBPART F - EQUIPMENT (continued)

Certification of the Fluid De-Icing Alcohol System Installation.

For those Utility aircraft which incorporate this modification, the following special conditions are in force. These special conditions are modelled after the Fuel and Oil Systems FAR 25 Sections .951 and .1011 to .1025 inclusive as appropriate.

ALCOHOL SYSTEM

U.951 General

(a) Each alcohol system must be constructed and arranged to ensure a flow of fluid at a rate and pressure established for proper functioning under each likely operating condition, including any maneuver for which certification is requested.

U.1011 General

(a) N/A

(b) (Usable alcohol capacity.)
The usable alcohol capacity may not be less than the product of the endurance of the airplane under critical operating conditions and the specified maximum alcohol consumption under the same conditions, plus a suitable margin to ensure system priming. Refer as well to the requirements of 25.1419(b).

(b)(1),(b)(2) N/A
(c) N/A

U.1013 Alcohol Tanks.

(a) Installation. The alcohol tank installation must meet the requirements of 25.967. However, the alcohol tank may be in a designated fire zone if the tank and its supports are fireproof to the extent that damage by fire to any non-fireproof part will not cause leakage or spillage of fluid.

(b) Expansion space. Alcohol tank expansion space must be provided as prescribed in Section 25.969.

(b)(1),(b)(2)& N/A
(b)(3) N/A

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SUBPART F - EQUIPMENT (continued)

ALCOHOL SYSTEM (Continued)

U.1013 Alcohol Tanks (Cont'd.)

(c) Filler Connection. Each recessed alcohol tank filler connection that can retain any appreciable quantity of alcohol must have a drain that discharges clear of each part of the airplane. In addition -

(1) (Filler Cap). Each alcohol tank filler cap must provide an alcohol tight seal and

(2) (Markings). Each alcohol filler must be marked under 25.1557(b).

(d) Vent. The alcohol tank must be vented as follows:

(1) (Vent location). The alcohol tank must be vented from the top part of the expansion space so that venting is effective under any normal flight condition.

(2) (Ice obstruction). The alcohol tank vent must be arranged so that condensed water vapor that might freeze and obstruct the line cannot accumulate at any point.

(e)&(f) N/A

U.1015 Alcohol Tank Tests.

The alcohol tank must be designed and installed so that:

(a) (Loads). It can stand without failure each vibration, inertia and fluid load it may be subjected to in operation and

(b) (Tank Tests). It meets the provisions of 25.965 except

(1) (Test pressure). The test pressure must be 5 PSI instead of the pressure specified in 25.965(a).

(2) N/A.

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SUBPART F - EQUIPMENT (continued)

ALCOHOL SYSTEM (Continued)

U.1017 Alcohol lines and fittings.

(a) Each alcohol line must meet the requirements of 25.993 and each alcohol line in any designated fire zone must meet the requirements of 25.1183.

(b) N/A

U.1019 Alcohol strainer or filter.

Each alcohol strainer or filter must be constructed and installed so that alcohol will flow at the normal rate through the rest of the system with the strainer or filter completely blocked.

U.1021 Alcohol drains.

There must be at least one accessible drain that -

(a) (Safe Drainage). Allows safe drainage of the entire alcohol system and

(b) (Drain Valve) Has manual or automatic means for positive locking in the closed position.

U.1025 Alcohol valves.

(a) Shutoff means. Each alcohol shutoff must meet the requirements of 25.1189.

(b) N/A.

(c) Valve stops and mounting. Each alcohol valve must have positive stops or suitable index provisions in the "on" and "off" positions and must be supported so that no loads resulting from its operation or from accelerated flight conditions are transmitted to the lines attached to the valve.

SUBPART G - OPERATING LIMITATIONS AND INFORMATION

R.1501 General

-1 Limitations, procedures, and information appropriate to safe conduct of particular special-purpose operations for which approval is desired must be established and presented in the Airplane Flight Manual prescribed by 25.1581.

-2 Reasonably expected variations from the established procedures must be investigated, and if such variations in service may be expected to result in a hazardous flight condition, appropriate warning information must be presented in the Airplane Flight Manual.

U.1501 It will be acceptable to establish separate limitations, procedures, and information for operation in the Utility Category.

RU.1505 Maximum Operating Limit Speed

For compliance with the provisions of 25.1505, Mach number need not be considered for operating Mach number values of 0.5 M. and less. (See Special Conditions RU.253 and RU.321.)

RU.1541 Markings and Placards - General

For compliance with the provisions of 25.1541, the aircraft must contain marking and placards corresponding to either the Restricted Category or the Utility Category, as selected by the applicant. Additionally, a placard installed in clear view of each pilot must identify the category for which the aircraft is marked, and must refer the viewer to the Flight Manual for limitations appropriate to the other category.

RU.1581 through RU.1587 Airplane Flight Manual

-1 Limitations, performance information, and operating procedures prescribed by 25.1581 through 25.1587 are considered appropriate to the Utility Category.

SUBPART G - OPERATING LIMITATIONS & INFORMATION (Continued)

-2 Limitations, performance information, and operating procedures prescribed by 25.1581 through 25.1587, as modified by the Special Conditions of this report, are considered appropriate to the Restricted Category.

-3 Flight Manual limitations, performance information, and procedures must be clearly and unmistakably identified as to the applicable category.

Maintenance Manual

A Maintenance Manual must be furnished with each aircraft. The manual must contain inspection and maintenance procedures, together with associated service periods for accomplishment, adequate to ensure continued airworthiness of the aircraft in service.

END

SUBJECT :

SUPPLEMENT 1

1. Introduction

1.1 Modification to Achieve the Model CL-215-6B11

Model CL-215-6B11 is based on model CL-215-1A10 with the changes listed below. The primary change being the original Pratt & Whitney Double Wasp CA3 piston engines replaced with Pratt & Whitney PW123AF turbopropeller engines. The following is a listing of Canadair Modification Summaries required to be incorporated for converting a model CL-215-1A10 to a model CL-215-6B11.

M/S No.	Description
215T001	Basic modification consisting of the following parts: A. Structural modification B. Engine, propeller system, and cockpit heating. C. Electrical power, engine indicating and warning system and modular wiring. D. Powerplant controls, hydraulic power, and flap actuation.
215T003	Addition or deletion of cockpit air-conditioning
215T004	Drop counter
215T011	Brake accumulator pressure gauge
215T012	Entrance ladder
215T013	Aerodynamic modification (finlets, bullet, slat, fuselage reinforcement, relocation of radio altimeter and VHF antennae, relocation of bilge pump and addition of fixed rudder gear tab ratio).
215T016	Powered rudder control system
215T017	Powered elevator control system
215T020 A	Structure Mods (Additional)

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215T020 B	Engine & Propeller Systems, Nacelle System, Firex Systems, Fuel Sytems & Cockpit Heating Installation (Mods Additional)
215T020 C	Electrical Power, Engine Installation & Warning System of Modular Wiring (Mods Additional)
215T020 D	Powerplant Controls, Hydro Power, Surface Control Systems, Furnishing and Paint Schemes (Mods Additional)
215T021	Powered Rudder & Elevator Installation (Mods Additional).
215T022	Kit Powered Aileron (Mod's Additional)
215T023	Cockpit Air Conditioning (Mods Additional)
215T024	Replacement of AFC To WB04 Configuration
215T025	Miscellaneous (DOT Items)
215T026	Kit Soft Stop Installation

The above listed modifications are defined in more detail in Canadair Report No. RAD-215T103, Issue C-1, "Kit Specification for the Retrofit of CL-215 Piston Aircraft with Turboprop Engines".

Model CL-215-6B11 is also intended for the eventual production version as defined in Canadair Report No. RAD-215T-102, Issue D-1, "Type Specification for the Canadair Model CL-215-6B11 Variant CL-215T Equipped with Pratt & Whitney, Canada PW123AF Engines".

1.2 Certification Basis

The concept behind the level of airworthiness agreed for the original type approval of the CL-215-1A10 is described in the introduction to the main document. This concept remains valid for the CL-215-6B11, hence the variant will be added to the existing Transport Canada type approval A-86 in both the Restricted and Utility categories and will be added to the existing FAA Type Certification Data Sheet No. A14EA in the Restricted Category.

SUBJECT :

SUPPLEMENT 1

This supplement is intended to record the minimum certification standards for the model CL-215-6B11. It is Canadair's objective to demonstrate a "higher" level of airworthiness where this is possible, though to always ensure a level of safety that is at least equivalent to model CL-215-1A10.

This supplement defines those requirements of FAR 25 which are considered inappropriate to the role of model CL-215-6B11 considering the effects of modifications described above on the original design. Canadair Report No. RAZ-215T-100 "Model CL-215T General Compliance Program" identifies the requirements which need to be addressed for the turbopropeller engine installation conversion and it is intended to comply with affected sections of FAR Part 25 up to and including Amendment 25-61 or Change 1 of CAM 525 unless a particular section/paragraph is otherwise identified in this Supplement 1 of RAO-215-100 and also the GCP RAZ-215T-100. Aspects of the design that are not associated with engine conversion continue to demonstrate compliance with the requirements stated in the certification standard of the original model CL-215-1A10 as identified in the main part of this report.

This approach has been agreed with transport Canada and follows the guidelines of FAR 21.101(c).

2.0 Applicable Requirements and Deviations

Contained in this section is a listing, in tabular format, of those requirements of FAR Part 25 that are considered either fully applicable, partially applicable or not applicable to the conversion from the Model CL-215-1A10 to CL-215-6B11. The following are the descriptions of the contents of each column and the abbreviation used:

a) Column 1 entitled "FAR 25" list the sections of FAR Part 25 dated 1 February 1965 at the following amendment levels:

- Those followed by an asterisk (*) identify FAR 25 dated 1 February 1965 plus amendment 25-18.
- Those followed by a dollar sign ($) identify no change between FAR Part 25 dated 1 February 1965 and FAR Part 25 at amendments 25-1 through 25-61.
- Those with no sign identify FAR Part 25 at amendments 25-1 through 25-61.

b) Column 2: entitled "Heading" is self explanatory.

c) Columns 3: entitled "Applicability". Under this title the following abreviations are identified.

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SUPPLEMENT 1

- The letter "C" for full compliance with the individual section.
- The letter "P" for partial compliance.
- The letter "N" for sections not considered appropriate/or not affected by change.

c) Column 4 entitled: "Deviation": This column contains information for those requirements which are not fully complied with (ie) requirements with "P" in the third column.

d) Column (5) entitled "Reason/Comment". This column contains information for requirements with "P" or/and "N" in the third column.

This list is divided into two parts:

2.1 - Restricted Category Certification basis list
and 2.2 - Utility Category Certification basis list

The first list, Restricted Category, calls all the requirements at the amendment level as described above.

The second list, Utility Category, calls the requirements that

a) Were complied with partially during the Restricted Category Certification and are to be fully complied with for the Utility category.

b) Were complied with partially during the Restricted Category Certification and are to be partially complied with for the Utility category with different deviation.

c) Result in different limitations for the Utility Category from those for the Restricted Category.

and d) Are applicable only to the Utility Category.

NOTE For the Utility Category, requirements which are equally applicable to Restricted Category with no change in compliance are listed in 2.1 but are not listed in 2.2.

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
	SUBPART A GENERAL			DOT Issue Paper F-10 & F-11 AWM chapter 511 / FAR 25
1.$	Applicability	C		
2.	Special retroactive req.	N		No increase in passenger seating capability
	SUBPART B FLIGHT			DOT Issue Paper F-6
21.0.	Proof of compliance	P		Partial compliance due to 25.23.e.
21.a.	Means of compliance	C		
21.b.	Flying qualities	C		
21.c.	Controllability, stabillity	C		
21.d.	Allowable tolerances	C		
21.e.	Automatic system	P	For power control system (Power Elevator and Power Rudder) only. The systems comply exept that probability is "extremely remote" in certain cases instead of "extremely improbable"	Power control system will allow continued safe flight and landing after a single failure, combination of failures, control jam and runaway not shown to be "extremely remote". This is per agreement with Transport Canada as appropriate for the Restricted Category References: "Proposed Powered Rudder and Elevator Certification Basis" Canadair letter WBR-11988 dated 17/7/90 "Model CL-215-6B11 Powered Elevator and Rudder" Transport Canada letter 5010-A246 (AARDE) dated 11/10/90
21.f.	Wind velocity measurement	C		
23.0.$	Load distribution limits	C		
23.a.$	Ranges of wts. & C.G.	C		
23.b.1.$	Selected limits	C		
23.b.2.$	Structural limits	C		
23.b.3.$	Flight limits	C		
25.0.	Weight limits:	P	It will be acceptable to establish maximimum weight limits for Water Take-Off operations compatible with an approved procedure for on-loading water while planing "on the step" and to demonstrate compliance with the buoyancy requirements of 525 /25.755 at lesser weight selected as a limitation for	

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
			the static flotation condition.	
25.a.	Maximum weights	P		
25.a.1.	Highest selected weight	P		DOT Issue Paper F-11 (replaces Issue Papers F-2 & F-3)
25.a.2.	Highest structures & flt. wgt.	P		
25.b.	Minimum weight	P		
25.b.1.	Lowest selected weight	P		
25.b.2.	Lowest struct. & flight weight	P		
25.b.3.	Lowest weight	P		
27.0.$	Center of gravity limits	C		
27.a.$	Extreme limits selected	C		
27.b.$	Extreme limits stucture proven	C		
27.c.$	Extremes for flight	C		
29.0.	Empty wt. & corresponding C.G.	C		
29.a.	Determination by weighing	C		
29.b.	Condition of airplane	C		
31.$	Removable ballast	C		
33.0.	Prop. speed & pitch limits	C		
33.a.1.	Safe normal operating cond.	C		
33.a.2.	Performance	C		
33.b.	Prop speed limiting means	C		
33.c.	Low pitch relat. to eng. speed	C		
33.c.1.	Governer inoperative	C		
33.c.2.	T/O power a/c stationary	N		
	PERFORMANCE			
101.0.	Performance general	P		DOT Issue Paper G-1 and FAA Issue Paper G-1 Transport Canada Policy For Performance of Turbine Engined Large Aircraft Used For Special Purpose (Restricted Category) AMA 525/10-X
101.a-e.	Performance, general	P	Performance at MTOW of the a/c -Will be with all engine operating.	AMA 525/10-X
101.f.	Performance general	P	Reference to TAKE OFF flight path not applicable	AMA 525/10-X

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
101.g.	Performance general	P	Reference to 25.119 and 25.121(d) are not applicable	AMA 525/10-X
101.h.	Performance general	C		DOT Issue Paper F-16
103.0.$	Stalling speed	C		
103.a.$	Calibrated (Vs)	C		Including proposed amendment NPA 90-9
103.b.$	Stalling speed definition	C		
105.0.$	Takeoff	P		AMA 525/10-X DOT Issue Paper F-9
105.a.$	T.O.speed acl-stop distance	P	Reference to TAKE OFF path described in 25.111, TAKE OFF RUN in FAR 25.113 not applicable	AMA 525/10-X
105.b.$	Pilot skill or alertness	C		
105.c.$	T.O. conditions	C		
105.d.$	Operation correction factors	C		
107.0.	Take-off speeds	P		AMA 525/10-X DOT Issue Paper F-9
107.a.	Calibrated VEF (C.E.F.)	P		
107.b.	Min. T.O. safety sp.(V2min)	P		
107.c.	T.O. safety sp. (V2)	P	Reference to 25.121(b) and 25.111(c)(2) in paragraph 25.107(c)(2) are not applicable	AMA 525/10-X
107.d.	Minimum unstick sp. (Vmu)	N		AMA 525/10-X
107.e.	Rotation speed (Vr)	P		AMA 525/10-X
107.e.1	(i) Rotation speed (Vr)	C		
107.e.1.	(ii) Rotation speed (Vr)	C		
107.e.1·	(iii) Rotation speed (Vr)	P	In lieu of this requirement substitute Vr may not be less than 1.1 Vs	AMA 525/10-X
107.e.1··	(iv) Rotation speed (Vr)	N		AMA 525/10-X
107.e.2.	Rotation speed (Vr)	P	Reference to one-engine inoperative is not applicable	AMA 525/10-X
107.e.3.	Rotation speed (Vr)	N		AMA 525/10-X
107.e.4.	Rotation speed (Vr)	C		
107.f.	Lift off speed (Vlof)	N		AMA 525/10-X
109.0.	Accelerate- stop distance:	P	Compliance will be demonstrated without the acc. at V1; V1 constant speed for 2 sec.	AMA 525/10-X

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
109.a.1.	Definition	N		AMA 525/10-X
109.a.2.	Definition	C	25.109.a.(1) Not Applicable	AMA 525/10-X
109.b.	Means other than wheel brakes	C		Reference AMA 525/8-X
109.c.	Landing gear position	C		
109.d.	Factors for other surfaces	N		AMA 525/10-X
111.0.	Take-off path	N		AMA 525/10-X
111.a.	Definition	N		AMA 525/10-X
111.b.	Landing gear position	N		AMA 525/10-X
111.c.	Conditions & configuration	N		AMA 525/10-X
111.d.	Continuous demonstrated T.O.	N		AMA 525/10-X
111.e.	Standby power rocket engines	N		The airplane is not equipped with standby power rocket engines.
113.0.	Take-off dist. & take-off run	P		AMA 525/10-X
113.a.1.	Take-off distance	N		AMA 525/10-X
113.a.2.	Take-off distance	P	Reference to 25.111 is not applicable	AMA 525/10-X
113.b.	Clearway	N		AMA 525/10-X
115.0.$	Take-off flight path	N		AMA 525/10-X
115.a.$	Definition	N		AMA 525/10-X
115.b.$	Net take-off flight path	N		AMA 525/10-X
115.c.$	Reducing climb gradient	N		AMA 525/10-X
117.0.$	Climb, general	N	References to 25.119 and 25.121 are not applicable	AMA 525/10-X
119.0.$	Baulked Landing A.E.O.	P	This section is replaced by the following Baulked Landing Climb, All Engines Operating The airplaine must be able to maintain a steady rate of climb of at least 250 ft/min with: 1- Take-off power on each engine; 2- The landing gear extended; 3- The wing flaps in the landing position; 4- A speed selected by the applicant which is not less than:- a) 1.2 Vs;	AMA 525/10-X

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
			b) VMCL in the applicable configuration 5- Pressure altitude and ambient temperature at 1000 ft above airfield altitude. The maximum landing weight (as limited by climb requirements)must be established as the weight at which compliance is shown with this paragrah and must be presented in the AFM.	
119.a.$	Thrust requirements	N		AMA 525/10-X
119.b.$	Climb speed	N		AMA 525/10-X
121 .0.$	Climb Requirement	N		AMA 525/10-X
121.	Climb: One engine inoperative	P	Section 4.2(a) This section is replaced by the following The airplane must be able to maintain a steady rate of climb of at least 100 ft/min with: 1- The critical engine inoperative and its propeller in the minimum drag position; 2- Remaining engine at not more than maximum continuous power; 3- Landing gear retracted; 4- Wing flaps position selected by the applicant;df=0° 5- A speed selected by the applicant which is not less than:- a) 1.2 VS b) 1.1 VMC in the applicable configuration 6- Pressure altitude and ambient temprature at 1000 ft above airfield altitude. 7- Takeoff weight (or takeoff weight less disposable load)	AMA 525/10-X
121..	Credit for Load Jettison	P	Section 4.2(b) This section is replaced by the following In meeting the engine inoperative climb requirement it is permissible to take credit for jettisoning of a disposable load such as water or fire retardant following engine failure. Use of the load jettison system must be safe and	AMA 525/10-X

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
			reliable and be such that consistent results can be expected without excptional skill to control the aircraft. The airplaine weight at which the one engine inoperative climb requirement must be met is the takeoff weight less the disposable load. In addition the airplane must be able to maintain a steady rate of climb of 600 ft/min with:- 1- All engines operating; 2- Not more than maximum continuous power; 3- Landing gear retracted; 4- Wing flaps selected by the applicant df=0° 5- A speed selected by the applicant which is not less than:- a) 1.3 VS b) 1.1 VMC in the selected configuration 6- Pressure altitude and ambient temperature at 1000 ft above airfield altitude; 7- Takeoff weight.	
121...	Take-off WAT Limit	P	Section 4.2(c) This section is replaced by the following The maximum take off weight (as limited by climb requirements) must be established as the weight at which compliance is shown with paragraph 4.2(a) or the most restrictive of paragraph 4.2(a) and 4.2(b) if credit is requested for a jettison system. The climb limited maximum takeoff weight must be presented in the AFM.	AMA 525/10-X
121.a.$	Climb:O.E.I. Landing gear ext.	N	Not applicable see FAR 25.121	AMA 525/10-X DOT Issue Paper F-2 replaced by F-7
121.b.$	Climb:OEI TO landing gear ext.	N	Not applicable see FAR 25.121	AMA 525/10-X DOT Issue Paper F-2 replaced by F-7
121.c.$	Climb: OEI Final takeoff	N	Not applicable see FAR 25.121	AMA 525/10-X DOT Issue Paper F-2 replaced by F-7
121.d.$	Climb:O.E.I. approach	N	Not applicable see FAR 25.121	AMA 525/10-X

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
123.0.$	En route Climb, OEI	P	Section 4.2(d) This section is replaced by the following The aircraft one engine inoperative enroute net climb performance represents the gross climb performance as determined below reduced by a rate of climb of 50 ft/min. The gross climb performance is determined with; 1- Critical engine inoperative and its propeller in the minimum drag position; 2- Remaining engine at not more than maximum continuous power; 3- Wing flaps in the enroute position; df=0° 4- Landing gear retracted; 5- A speed selected by the applicant which is not less than;- a) 1.25 VS b) 1.1 VMC in the applicable configuration. 6- Pressure altitudes and ambient temperatures within the operational limits selected by the applicant; 7- The weight of the airplane taking into account progressive consumption of fuel; and 8- The weight of the airplaine resulting from fuel jettison or disposable load jettison if such a system is approved. The enroute net climb performance must be presented in the AFM.	AMA 525/10-X
123.a.$	Various config. & conditions	N		AMA 525/10-X
123.b.$	O.E.I. net flight path	N		AMA 525/10-X DOT Issue Paper F-3 replaced by F-7
123.c.$	Three or Four engine airplane	N		Airplane equiped with two engines only
125.0.$	Landing	P		DOT Issue Paper F-5
125.a.$	Landing distance def., config.	C		
125.b.$	Land landing distance conditio	C		
125.c.$	Water landing conditions	C		
125.d.$	Skiplanes	N		Not a skiplane

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
125.e.$	Wind correction factor	C		
125.f.$	Engine dependent devices	N	In lieu of this requirement a one engine inoperative landing distance may be established and presented in the AFM	AMA 525/8-X AMA 525/10-X
	CONTROLABILITY & MANEUVABILITY			
143.0.	General	C		DOT Issue Paper F-8 and F-9
143.a.	Safely controlable	C		
143.b.	Smooth transition	C		
143.c.	Pilot's strength	C		
143.d.	Conventional oprting practice	C		
143.e.	Prolonged force application	C		
145.0.	Longtudinal control	C		
145.a.	Nose downward pitch	C		
145.b.	Change in trim control	C		
145.c.	Effect of retrctg lift devices	C		
147.0.	Directional & Lateral Control	C		
147.a.	Directional control: general	C		
147.b.	Directional controls	N		Airplane equiped with two engines only
147.c.	Lateral control:general	C		
147.d.	Lateral controls	N		Airplane equiped with two engines only
147.e.	All engines operating	C		
149.0.	Minimum control speed	C		DOT Issue Paper G-1
149.a.	Engine failure method	C		
149.b.	Definition of Vmc	C		
149.c.	VMC conditions	C		
149.d.	Rudder forces	C		
149.e.	Definition of Vmcg	C		
149.f.	Definition of Vmcl	C	Vmcl is defined as the speed at which a safe single engine go around can be executed in the landing configuration.	
149.g.	Vmcl, for A/C with >3 engines	N		Airplane equiped with two engines only
149.h.	Vmcl, rudder forces	C		
	TRIM			
161.0.	Trim	C		
161.a.	General	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
161.b.	Lateral & directional trim	C		
161.c.	Longitudinal trim	C		
161.d.	Long., direct. & lateral trim	C		
161.e.	Airplanes with 4 or more eng.	N		Airplane equiped with two engines only
	STABILITY			
171.	General	C		
173.0.	Static longitudinal stability	C		
173.a.	Push or pull requirements	C		
173.b.	Airspeed requirements	C		
173.c.	Stick force/ speed curve	C		
173.d.	Trim speed tolerance	C		
175.0.	Demo. of static long. stabil.	C		DOT Issue Paper F-1 replacsd by F-6
175.a.	Climb	C		
175.b.	Cruise	C		
175.c.	Approach	C		
175.d.	Landing	C		
177.0.	Static direct. & lateral stab.	C		DOT Issue Paper F-4 replaced by F-6
177.a.	Static directional stability	C		
177.b.	Static lateral stability	C		
177.c.	Sideslips	C		
181.0.	Dynamic stability	C		
181.a.	Dynamic stab. stick free/fixed	C		
181.b.	Dutch roll stability	C		
	STALLS			
201.0.	Stall demonstration	C		
201.a.	Straight & banked turns	C		
201.b.	Aircraft configuration	C		
201.c.	Procedures for compliance	C		
201.d.	Stall definition - FAR	C		
	Stall definition - CAM	C		
203.0.$	Stall characteristics	C		
203.a.$	Roll & yaw corrrection	C		
203.b.$	Wings level	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
203.c.$	Turning flight stalls	C		
205.0.$	Stalls: critical eng. inop.	C		
205.a.$	Safe recovery	C		
205.b.$	Operation of throttles	C		
207.0.	Stall warning	C		
207.a.	Nature & margin	C		DOT Issue Paper F-8
207.b.	Warning means- FAR	C		
	Warning means- CAM	C		
207.c.	Speed margin	C		
	GROUND AND WATER HANDLING			
231.0.$	Longitudinal stab. & control	C		
231.a.$	Nose over characteristics	C		
231.b.$	Seaplanes & amphibians	C		
233.0.	Directional stab. & control	C		
233.a.	Ground loop characteristics	C		DOT Issue Paper F-9
233.b.	Landing controllability	C		
233.c.	Taxiing directional control	C		
235.$	Taxiing condition	N		DOT Issue Paper F-9 Compliance demonstrated for original certification of the CL-215-1A10
237.0.	Wind velocities	C		
237.a.	Cross compt, on land	C		
237.b.1.	90 deg. cross component water	C		
237.b.2.	Taxiing on water	C		
239.0.$	Spray characs. on water	C		
239.a.$	Forbidden characteristics	C		
239.b.$	Conditions	C		
239.c.$	Drifting	C		
	MISCELLANEOUS FLIGHT REQ'TS			
251.0.	Vibration & buffeting	C		
251.a.	Ability to withstand	C		
251.b.	Freedom from excessive vib.	C		
251.c.	Effects of buffeting	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
251.d.		Buffeting in cruise config	C		
251.e.		Determination- buffet boundary	C		
253.0.		High speed characteristics	P	For Restricted Category compliance demonstration will be limited to the two-axis gust upset test specified in FAA Advisory Circular 25-7, paragraph 32.c(3)(iii).	DOT Issue Paper F-9
253.a.		Speed increase & recovery	P		
253.b.		Maximum speed for stability	P		
255.0.		Out-of-trim characteristics	P	A trim system safety assessment in conjunction with a demonstration of safe flight characteristics will be carried out, following a 3 sec. runaway nose up and down at VMO.	
255.a.		Satisfactory maneuvouring	P		
255.b.		Out-of-trim with normal accel.	N		
255.c.		Acceleration range	N		
255.d.		If marginal cond. for (c.2.)	N		
255.e.		Limit maneuvering load factors	N		
255.f.		Overspeed at Vdf/Mdf	N		
		SUBPART C STRUCTURES GENERAL			
301.0.	*	Loads	C		
301.a.	*	Strength requirements	C		
301.b.	*	Loading conditions	C		
301.c.	*	Effect of deflections	C		
303.	*	Factor of safety	C		
305.0.	*	Strength & deformation	P	Full compliance will be demonstrated for 25.305(a),(b) and (c) to amendment 25-61. Compliance will not be demonstrated with 305.(d)	Requirement 25.305.(d) was not included in the original Certification basis
305.a.	*	Limit load	C		
305.b.	*	Ultimate load	C		
305.c.	*	Structural flexibility	C		
305.d.		Dynamic response	N		Not included in the original certification basis
307.0.		Proof of structure	P	Compliance with strength and deformation requirements of this sub-part may be demonstrated by analysis alone, provided the analyses for the engine mounts and other areas	

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				of modified stucture conform to those for which experience has shown the method to be reliable. Compliance with the fatigue requirements of 25/525.571 will be shown for the engine mounts and nacelle.	
307.a.		Critical loading condition	P		
307.b.		Fatigue evaluation	P		Refer to 25.571
307.c.		General testing	P		
307.d.		Material correction factors	P		
		FLIGHT LOADS			
321.0.		General	P	For compliance with applicable flight load requirements, compressibility effects need not be considered for M=<0.5	Aircraft restricted to Mach=<0.5
321.a.		Factors	C		
321.b.		Conditions for flight loads	P		Aircraft restricted to Mach=<0.5
		FLIGHT MANEUVER & GUST CONDITI			
331.0.	*	General	C		
331.a.	*	Procedure	C		
331.b.	*	Maneuvering balanced condition	C		
331.c.	*	Maneuvering pitching condition	C		
331.d.	*	Gust condition	C		
333.0.$		Flight envelope	C	Strength considerations for the engine modification will be examined using flight envelopes compatible with the airspeed and severity of manoeuvers anticipated for the types of special purpose operations, supported by the aircraft's actual wing-lift characteristics.	
333.a.$		General	C		
333.b.$		Maneuvering envelope	C		
333.c.$		Gust envelope	C		
335.0.		Design airspeeds	C		
335.a.		Design cruising speed (Vc)	C		
335.b.		Design dive speed (Vd)	C		
335.c.		Design maneuvering speed (Va)	C		
335.d.		Design sp. for max. gust (Vb)	C		
335.e.		Design flap speeds (Vf)	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
335.f.		Design drag device speed (Vdd)	N		No special drag devices
337.0.	*	Limit maneuvering load factor	C	Limit manoeuvering load factors may not be less than a)positive factor 1)+3.25g with maximum speed equal to the design flap speed VF for special purpose wing flap position 2)+3.0g with maximum speed equal to Vd flaps retracted b)negative factor 1)-1.0g with maximum speed equal to Vc flaps retracted (then linearly reducing to 0g at VD). Limit manoeuver load factor prescribed by 25/525.337 are considered applicable for operations involving carriage of persons, equipement and supplies associated with approved special purpose operations.	
337.a.	*	Symmetrical maneuvers	C		
337.b.	*	Positive limit man. load fact.	C		
337.c.	*	Negative maneuvering load fact	C		
337.d.	*	Lower factors	C		
341.0.$		Gust loads	C		
341.a.$		Symmetrical vertical gust	C		
341.b.$		Assumptions	C		
341.c.$		Gust load factors	C		
343.0.		Design fuel & oil loads	C		
343.a.		Disposable load combinations	C		
343.b.		Structural reserve fuel cond.	C		
345.0.		High lift devices	C	If wing flaps are to be used for flight conditions other than take off, approach and landing, it will be acceptable to select design criteria for these conditions compatible with the manoeuvering speeds and severity of manoeuvers anticipated for the particular special purpose operation and with the aircrafts maximum lift coeffecient with flaps at the appropriate position.	
345.a.		Design flap conditions	C		
345.b.		Exceptions	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
345.c.	En route conditions	C		
345.d.	Landing at MTOW	C		
349.0.	Rolling conditions	C		
349.a.	Maneuvering loads	C		
349.b.	Unsymmetrical gust loads	C		
351.0.	Yawing conditions	C		
351.a.	Maneuvering loads	C		
351.b.	Lateral gust loads	C		
	SUPPLEMENTARY CONDITIONS			
361.0.	Engine torque	C		
361.a.	Eng/prop torque limits	C		
361.b.	Turbine eng torque limit	C		
361.c.	Turboprop torque limits	C		
363.0.	Side load on engine mount	C		
363.a.	Limit load factor	C		
363.b.	Independent side load	C		
365.0.	Pressurized cabin loads	N		Aircraft is unpressurised
365.a.	Strenth of stucture	N		Aircraft is unpressurised
365.b.	Conditions for calculation	N		Aircraft is unpressurised
365.c.	Loads during landing	N		Aircraft is unpressurised
365.d.	Max differential relief loads	N		Aircraft is unpressurised
365.e.	Design for decompression	N		Aircraft is unpressurised
365.f.	Use of compartment venting	N		Aircraft is unpressurised
365.g.	Prevent injury to occupants	N		Aircraft is unpressurised
367.0.$	Unsymm. loads due to eng fail	C		
367.a.$	Turboprop conditions	C		
367.b.$	Pilot corrective action	C		
371.$	Gyroscopic loads	C		
373.0.$	Speed control devices	N		No speed control devices
373.a.$	Design conditions	N		No speed control devices
373.b.$	Auto or load limiting features	N		No speed control devices
	CONTROL SURFACE & SYSTEM LOADS			
391.0.$	General	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
391.a-d.$	Control surface loads	C		
391.e.$	Outboard fins	C		
393.0.$	Loads parallel to hinge line	C		
393.a.$	Inertia loads	C		
393.b.$	Inertia load formula	C		
395.0.	Control system	C		
395.a.	Control hinge loads	C		
395.b.	System limit loads	C		
397.0.	Control system loads	C		
397.a.	General	C		
397.b.	Pilot effort effects	C		
397.c.	Limit pilot forces	C		
399.0.$	Dual control system	C		
399.a.$	Opposing pilot forces	C		
399.b.$	Cumulative pilot forces	C		
405.$	Secondary control system	C		
407.0.$	Trim tab effects	C		
407.a.$	Elevator trim tabs	C		
407.b.$	Aileron & rudder trim tabs	C		
409.0.$	Tabs	C		
409.a.$	Trim tabs	C		
409.b.$	Balancing tabs	C		
409.c.$	Servo tabs	C		
415.0.$	Ground gust conditions	C		
415.a.$	Design conditions	C		
415.b.$	Moment factor K	C		
427.0.	Unsymmetrical loads	C		
427.a.	Horizontal tail surfaces	C		
427.b.	Application of loads	C		
445.0.$	Outboard fins	C		
445.a.$	Design conditions	C		
445.b.$	Unsymmetrical loads	C		
457.$	Wing flaps	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
459.$	Special devices	N		No special devices
	GROUND LOADS			
471.0.	General	C		
471.a.	Loads & equilibrium	C		
471.b.	Critical center of gravity	C		
471.c.	Landing gear dimension data	C		
473.0.	Ground load condts & assumpt.	C		
473.a.	Landing conditions	C		
473.b.	Descent velocities	C		
473.c.	Min. inertia load factors	C		
477.$	Landing gear arrangement	C		
479.0.	Level landing conditions	C		
479.a.	Ground contact speed	C		
479.b.	Ground speeds with tailwind	N		Downwind landing exceeding 10 knots not required by applicant
479.c.	Application of loads	C		
479.d.	Airplane with tail wheels	N		Aircraft not fitted with tail wheel
479.e.	Level landing attitude	C		
481.0.$	Tail-down landing conditions	C		
481.a.$	Ground contact speeds	C		
481.b.	Airplane with tail wheels	N		Aircraft not fitted with tail wheel
481.c.$	Attitude, nosewheel aircraft	C		
483.0.$	One wheel landing conditions	C		
483.a.$	Ground reactions	C		
483.b.$	Unbalanced external load	C		
485.0.$	Side load conditions	C		
485.a.$	Assumed attitude	C		
485.b.$	Side load	C		
487.0.$	Rebound landing condition	C		
487.a.$	Affected structure	C		
487.b.$	Load factor	C		
489. *	Ground handling conditions	C		
491.$	Take-off run	C		

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
493.0.	*	Braked roll conditions	C		
493.a.		Design criteria, tail wheel	N		Aircraft not fitted with tail wheel
493.b.	*	Design criteria, nose wheel	C		
493.c.	*	Reduced drag load	C		
495.$		Turning	C		
497.0.$		Tail wheel yawing	N		Aircraft not fitted with tail wheel
497.a.$		Ground reaction	N		Aircraft not fitted with tail wheel
497.b.$		90° swivel	N		Aircraft not fitted with tail wheel
497.c.$		Lock/steering dev./shimmy damp	N		Aircraft not fitted with tail wheel
499.0.	*	Nose wheel yaw	C		
499.a.	*	Load factors	C		
499.b.	*	Design criteria	C		
499.c.	*	High nose gear side load	C		
499.d.	*	Reduced drag load	C		
503.0.$		Pivoting	C		
503.a.$		Design criteria	C		
503.b.$		Airplane in equilibrium	C		
507.0.$		Reversed braking	C		
507.a.$		Design criteria	C		
507.b.$		Pitching moment, nose wheel	C		
507.c.$		Ground reaction, tail wheel	N		Aircraft not fitted with tail wheel
509.0.	*	Towing loads	C		
509.a.	*	Load conditions	C		
509.b.	*	Towing points	C		
509.c.	*	Reactions	C		
509.d.	*	Loads	C		
511.0.$		Unsymm. loads, muli. whl. unit	C		
511.a.$		General	C		
511.b.$		Load distrib., tires inflated	C		
511.c.$		Deflated tires	C		
511.d.$		Landing conditions	C		
511.e.$		Taxi & ground handling	C		
511.f.$		Towing condition	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
	WATER LOADS			
521.0.$	General	C		
521.a.$	Take off & landing water desig	C		
521.b.$	Analysis of water loads	C		
521.c.$	Amphibians requirements	C		
523.0.	Design weights & CG positions	C		
523.a.	Design weight	C		
523.b.	Center of gravity positions	C		
525.0.$	Application of loads	C		
525.a.$	Load factors	C		
525.b.$	Float pressures	C		
525.c.$	Aerodynamic lift twin floats	N		Aircraft not a twin float seaplane
525.d.$	Unsymetrical step laoding	C		
527.0.	Hull & main float load factors	C		
527.a-b.	Water reaction load factors	C		
527.c.	Twin float seaplane	N		Aircraft not a twin float seaplane
529.0.$	Hull & main float landing cond	C		
529.a.$	Symm. step, bow, & stern landg	C		
529.a.1.$	Symm. step landings	C		
529.a.2.$	Symm. bow landings	C		
529.a.3.$	Symm. stern landings	C		
529.b.$	Unsymm. landing for hull	C		
529.c.$	Twin float seaplane unsym.land	N		Aircraft not a twin float seaplane
531.0.	Hull & main float takeoff cond	C		
531.a.	Wing lift	C		
531.b.	Inertia load	C		
533.0.	Hull & main float bottom press	C		
533.a.	General	C		
533.b.	Local pressures	C		
533.c.	Distributed pressures	C		
535.0.	Auxiliary float loads	C		
535.a.	General	C		
535.b.	Step loading	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
535.c.	Bow loading	C		
535.d.	Unsymmetrical step loading	C		
535.e.	Unsymmetrical bow loading	C		
535.f.	Immersed float condition	C		
535.g.	Float bottom pressures	C		
537.$	Seawing loads	N		Aircraft does not have seawing
	EMERGENCY LANDING CONDITIONS			
561.0.	General	C		
561.a.	Designed to protect occupants	C		
561.b.	Design criteria & g loads	C		
561.c.	Restrain items of mass	C		
563.$	Structural ditching provision	N		Refer to 25.801(e)
	FATIGUE EVALUATION			
571.0.	Damage tolerance & fat. eval.	P	A damage tolerance assessment will be provided for the engine mounts and nacelle (including testing), horizontal tail leading edge slat and finlets based on an appropriate load spectrum.	Basic aeroplane is designed to original FAR 25 issue. Damage tolerance requirements were not applicable in 1965
571.a.	General	P		
571.b.	Damage tolerance evaluation	P		
571.c.	Fatigue evaluation	P		
571.d.	Sonic fatigue strength	N		Not a turbojet powered airplane
571.e.	Dam. tol, (discrete source)	P		
571.e.1.	Four pound bird impact	N		Not part of the original certification of the CL-215-1A10
571.e.2.	Propeller & fan blade impact	N		Not part of the original certification of the CL-215-1A10
571.e.3.	Uncontained engine failure	P	It will be demonstrated that continued safe flight and landing is possible after structural failure resulting from engine debris.	DOT Issue Paper E-1 and FAA Issue Paper P-1
571.e.4.	Uncontained rot. mach. failure	P		Dot Issue Paper E-1 and FAA Issue Paper P-1
573.0. *	Fatigue eval. of landing gear	C		
573.a. *	Strength, design	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
573.b. *	Fatigue strength	C		
573.c. *	Fail safe strength	N		Not part of the original certification of the CL-215-1A10
	LIGHTNING PROTECTION			
581.0.	Lightning protection	C		
581.a.	Protection against catastrophy	C		
581.b.	Metallic components	C		
581.c.	Non-metallic components	C		
	SUBPART D			
	DESIGN & CONSTRACTION			
	GENERAL			
601.$	General	C		
603.0.	Materials	C		
603.a.	Materials suitability & durab.	C		
603.b.	Approval	C		
603.c.	Environmental effects	C		
605.0.	Fabrication methods	C		
605.a.	Consistently sound	C		
605.b.	Substantiated	C		
607.0.	Fasteners	C		
607.a.	Two seperate lock devices	C		
607.b.	Environmental conditions	C		
607.c.	Bolt in rotation	C		
609.0.$	Protection of structure	C		
609.a.$	Environment	C		
609.b.$	Ventilation & drainage	C		
611.	Accessibility provisions	C		
613.0.	Material properties & values	C		
613.a.	Strength	C		
613.b.	Design values	C		
613.c.	Temperature effects	C		
613.d.	Minimize fatigue failure	C		
613.e.	Acceptable design values	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
615.0.	Design properties	C		
615.a.	Conditions	C		
615.b.	Specimen testing	C		
619.0.	Special factors	C		
619.a-c	Special factors	C		
621.0.$	Casting factors	C		
621.a.$	General	C		
621.b.$	Bearing stresses & surfaces	C		
621.c.$	Critical castings	C		
621.d.$	Non-critical castings	C		
623.0.$	Bearing factors	C		
623.a.$	Relative motion	C		
623.b.$	Larger factors	C		
625.0.	Fitting factors	C		
625.a.	Applicability	C		
625.b.	Stiffness & Rigidity	C		
625.c.	Integral fitting	C		
625.d. *	Seat, berth, belt & harness	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
629.0.	Flutter, deform & F.S criteria	P	Complies with up to ammendment 61 for propeller whirl flutter, for the rest of the aircraft compliance is shown for this requirement prior to ammendment 46.	The control surface and tab mass balance requirements are set to clear single flight control system failures (hydraulic / mechanical) to the full Vd/Md flight envelope. This an improvement over the original certification basis however multiple failures are not covered
629.a.	General	P		
629.b.	Flutter & divergence prevent.	P		
629.c.	Loss of cont. due to str. def.	P		
629.d.0	Fail-safe criteria	P		
629.d.1.	Freedom from flutter or diver.	P		
629.d.2.	Failure simul.n during flight	P		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
629.d.3.	Negligible prob of occurance	P		
629.d.4.	Failure cases	P		
631.	Bird strike damage	N		Not part of the original certification of the CL-215-1A10
	CONTROL SURFACES			
651.0.$	Proof of strength	C		
651.a.$	Limit load tests	C		DOT Issue Paper E-9
651.b.$	Special factors	C		
655.0.$	Installation	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
655.a.$	Surface interference	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
655.b.$	Adjustable stabilizer	N		No adjustable stabilizer installed
657.0.	Hinges	C		
657.a.	Bearing strength	C		
657.b.	Strength & rigidity	C		
	CONTROL SYSTEMS			
671.0.	General	P		Partial compliance is due to 25.671.c.
671.a.	Smooth operation	C		
671.a. *	Smooth operation	C		
671.b.	Minimize incorrect assembly	C		
671.b. *	Minimize incorrect assembly	C		
671.c.	Failure cases & jamming	P	Compliance will be demonstrated exept that probability is "extremely remote" in certain cases instead of "extremely improbable".	Continued safe flight and landing is possible after a single failure, combination of failures control jam and runaway not shown to be "extermely remote". This is per agreement with Transport Canada (see comments 25.21(e)).
671.c. *	Failure cases	C		
671.d.	Control all engine failed	C		
671.d. *	Adjustable stabilizer	C		
672.0.	Power-operated systems	C		DOT Issue Paper F-9

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
672.a.		Failure warning	C		
672.b.		Counteraction of failures	C		
672.c.		Stability after single failure	C		
673.$		Two-control airplanes	N		Not a two control airplane
675.0.		Stops	C		
675.a.		Limit control range	C		
675.a.	*	Limit control range	C		
675.b.		Location	C		
675.b.	*	Location	C		
675.c.		Strength	C		
675.c.	*	Strength	C		
677.0.		Trim systems	C		
677.a.		Operating criteria	C		
677.a.	*	Operating criteria	C		
677.b.		Trim indication	C		
677.b.	*	Trim indication	C		
677.c.		Prevent creep & reversibility	C		
677.c.	*	Prevent creep & reversibility	C		
677.d.		Irreversible tab	C		
679.0.$		Control system gust locks	C		
679.a.$		Device design	C		
679.b.$		Prevent engagement in flight	C		
681.0.$		Limit load static tests	C		
681.a.$		Test definition	C		
681.b.$		Include special factors	C		
683.		Operation tests	C		
683.	*	Operation tests	C		
685.0.		Control system details	C		
685.a.		Design criteria	C		
685.a.	*	Design criteria	C		
685.b.		Prevent f.o. from cockpit	C		
685.b.	*	Prevent f.o. from cockpit	C		
685.c.		Prevent tube or cables slap	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
685.c.	*	Prevent tube or cables slap	C		
685.d.		Requirements for cables	C		
685.d.	*	Requirements for cables	C		
689.0.$		Cable systems	C		
689.a.$		Cable approval & design	C		
689.b.$		Pulley design	C		
689.c.$		Fairleads	C		
689.d.$		Clevis pins	C		
689.e.$		Turnbuckles	C		
689.f.$		Means for inspection	C		
693.$		Joints	C		
695.0.	*	Pwr-boost & pwr op. cont. sys.	C		
695.a.	*	Alternate system	C		
695.b.	*	Duplicate system	C		
695.c.	*	Mechanical failure (jaming)	C		
695.d.	*	Engine failure operation	C		
697.0.	*	Wing Flap control	C		
697.a.	*	Design	C		
697.b.	*	Prevent inadvertent operation	C		
697.c.	*	Surface rate of motion	C		
697.d.	*	Flap control	C		
699.0.	*	Wing Flap position indicator	C		
699.a.	*	Indicate position of device	C		
699.b.	*	Flaps extention indication	C		
699.c.	*	Specific indication	N		Aircraft does not use extention of the lift and drag devices beyond the landing position
701.0.	*	Flap interconnection	C		
701.a.	*	Required mechanical connection	C		
701.b.	*	Design for unsymm. loads	C		
701.c.	*	Flap interconnect unsym.loads	C		
701.d.	*	Design for symmetric loads	N		Flaps are subjected to slipstream conditions
703.0.		Takeoff warning system	N		DOT Issue Paper E-7 Take offs with extreme mistrimmed elevator and

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					with abnormal flap configuration have been performed, good handling quantities were demonstrated in all cases, and stick forces were well within the acceptable standards for temporary application
703.a-c		Takeoff configuration warning	N		
		LANDING GEAR			
721.0.	*	General	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
721.a.	*	Consideration of failure	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
721.b.	*	One gear landing	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
721.c.	*	Means of compliance	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
723.0.		Shock absorbtion tests	C		
723.a.		Energy absorb. tests	C		
723.b.	*	Descent velocity capability	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.0.	*	Limit drop tests	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.a.	*	Free drop tests	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.b.	*	Airplane lift simulation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
725.c.	*	Test attitude	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.d.	*	Value of d	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.e.	*	Limit inertia load factor	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
725.f.	*	Value of n	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
727.0.	*	Reserve energy absorption test	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
727.a.	*	Drop height	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
727.b.	*	Airplane lift simulation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
729.0.		Retracting mechanism	C		
729.a.	*	General	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
729.b.	*	Landing gear lock	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
729.c.	*	Emergency operation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
729.d.	*	Operation test	N		Not affected by modification, compliance demonstrated for the original certification of the

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				CL-215-1A10
729.e.	Position indicator & warning	C		
729.f. *	Protn of equip in wheel wells	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
731.0.$	Wheels	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
731.a.$	Approval	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
731.b.$	Max load rating	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
731.c.$	Max limit load rating	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
733.0. *	Tires	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
733.a. *	Speed & load rating	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
733.b. *	Ground reactions	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
733.c. *	Load rating	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
733.d. *	Clearance	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
735.0. *	Brakes	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
735.a. *	Brake	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
735.b. *	Brake system	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
735.c. *	Control force	C		
735.d.	Parking brake	C		
735.e.	Anti-skid devices	N		Not equipped with antiskid devices
735.f.	Kinetic energy capacity	C		
735.g.	Minimun stalling speed	C		
737.$	Skis	N		Not equipped with skis
	FLOATS AND HULLS			
751.0.$	Main float buoyancy	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
751.a.$	Maximum weight buoyancy	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
751.b.$	Watertight compartments	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
753.$	Main float design	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
755.0.$	Hulls	P	To demonstrate compliance with the buoyancy provisions 755(a) it will be acceptable to assume flooding of the most critical of any one single compartment	Ref. 25.25
755.a.$	Watertight compartements	P		
755.b.$	Bulkheads	N		No watertight doors used for communication between compartments
	PERSONNEL/CARGO ACCOMMODATIONS			
771.0.	Pilot compartment	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
771.a.	Duties without fatigue	C		
771.b.	Location of controls	C		
771.c.	Second pilot	C		
771.d.	Compartment leakage	C		
771.e.	Vibration & noise	C		
772.0.	Pilot compartment doors	N		No cockpit door installed, Restricted Category Aircraft carries no passengers and less than 20 personnel
772.a.	Emergency exit configuration	N		No cockpit door installed, Restricted Category Aircraft carries no passengers and less than 20 personnel
772.b.	Exceptions	N		No cockpit door installed, Restricted Category Aircraft carries no passengers and less than 20 personnel
773.0.	Pilot compartment view	C		
773.a.1.*	Clear view, non precipitation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
773.a.2.	Free of glare & reflection	C		
773.b.1.*	Clear view, precipitation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
773.b.2.*	Pilots DV window	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
773.c. *	Windshield/window fogging	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
775.0. *	Windshields and windows	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
775.a. *	Internal panes	N		Not affected by modification, compliance demonstrated for the original certification of the

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					CL-215-1A10
775.b.	*	Windshield, birdstrike	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
775.c.	*	Minimize hazard from fragments	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
775.d.	*	Pressurization effects	N		Aircraft is unpressurized
777.0.		Cockpit controls	C		
777.a.		Location	C		
777.b.		Control movement	C		
777.c.		Location for all pilots	C		
777.d.		Powerplant controls	C		
777.e.	*	Flap & other aux controls	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
777.f.	*	Landing gear control	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
777.g.		Control knobs	C		
777.h.		Flight engineer station	N		No flight engineer station required
779.0.$		Motion of controls	C		
779.a.$		Aerodynamic controls	C		
779.b.1.$		Powerplant controls	C		
779.b.2.$		Auxiliary controls	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
781.$		Cockpit control knob shape	C		
783.0.	*	Doors	C		
783.a.	*	One accessible door	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.b.	*	Door design criteria	N		Not affected by modification, compliance

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					demonstrated for the original certification of the CL-215-1A10
783.c.	*	Prevent jamming	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.d.	*	Propeller/door interface	C		DOT Issue Paper E-3
783.e.	*	Door lock indication	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.f.	*	Prevent pressurization	N		Aircraft is unpressurized
783.g.	*	Cargo & service doors	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.h.	*	Pax entry door qualification	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.i.	*	Entry door & integl airstairs	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
783.j.	*	Lavatory door locks	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
785.0.	*	Seats, seatbelts etc	C		
785.a.	*	Designed to prevent injury	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
785.b.	*	Approval	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
785.c.	*	Safety belt criteria	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
785.d.	*	Hand grip or rail	N		Not affected by modification, compliance

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					demonstrated for the original certification of the CL-215-1A10
785.e.	*	Projecting object	C		
785.f.	*	Berth design	N		Not part of the original certification basis
785.g.	*	Crew shoulder harness	N		
785.h.	*	Attendant seat location	N		No attendant seat installed
785.i.	*	Seat loading conditions	N		No passenger, berth, attendant seat installed
787.0.	*	Stowage compartments	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
787.a.	*	Compartment load	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
787.b.	*	Prevent load shifting	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
787.c.	*	Compartment lamps	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
789.0.		Retention of items of mass	N		Not part of the original certification basis (No passenger compartment)
789.a.		Means to retain items of mass	N		Not part of the original certification basis (No passenger compartment)
789.b.		Interphone restraint system	N		Not part of the original certification basis (No passenger compartment)
791.		Passenger information signs	N		Not part of the original certification basis (No passenger compartment)
793.		Floor surfaces	N		Not part of the original certification basis (No passenger compartment)
		EMERGENCY PROVISIONS			
801.0.$		Ditching	N		All prescribed ditching emergency exits are above level for the critical flotation condition of the requirement 25.755 with two adjacent compartments

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					flooded
801.a.$		Requirements	N		
801.b.$		Prevent injury on water impact	N		
801.c.$		Model test or comparison	N		
801.d.$		Permit evacuation of occupents	N		
801.e.$		Doors & windows	N		
803.0.	*	Emergency evacuation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
803.a.	*	Provide means of rapid escape	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
803.b.	*	Emergency exit requirements	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
803.c.	*	Evacuation demonstration	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
803.d.	*	Means of compliance	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
803.e.	*	Escape route, overwing exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
805.0.$		Flight crew emergency exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
805.a.$		Location	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
805.b.$		Size	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
807.0.	*	Passenger emergency exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
807.a.	*	Type & location	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
807.b.	*	Accessibility	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
807.c.	*	Passenger emergency exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
807.d.	*	Ditching emergency exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.0.	*	Emergency exit arrangement	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.a.	*	Exit definition	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.b.	*	Exit opening criteria	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.c.	*	Means of opening	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.d.	*	Means to lock exit	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.e.	*	Minimize jamming	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
809.f. *	Requirements for slides	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.g. *	Means of compliance	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
809.h-j.*	Assist means & other exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.0. *	Emergency exit marking	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.a. *	Conspicuous	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.b. *	Marking visibility	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.c. *	Smoke conditions	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.d. *	Exit signs	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.e. *	Operating handle	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.f. *	Outside markings	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
811.g. *	Appropriate words	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
812.0.		Emergency lighting	N		Not part of the original certification basis
812.a.		Power supply	N		Not part of the original certification basis
812.b.		Emergency exit sign lighting	N		Not part of the original certification basis
812.c.		General illumination	N		Not part of the original certification basis
812.d.		Floor level illumination	N		Not part of the original certification basis
812.e.		Floor proximity lighting	N		Not part of the original certification basis
812.f.		Emergency lighting operation	N		Not part of the original certification basis
812.g.		Exterior emergency lighting	N		Not part of the original certification basis
812.h.		Slide illumination	N		Not part of the original certification basis
812.i.		Time of emergency power	N		Not part of the original certification basis
812.j.		Batteries as power supply	N		Not part of the original certification basis
812.k.		Operation after inertia loads	N		Not part of the original certification basis
812.l.		Operation after separation	N		Not part of the original certification basis
813.0.	*	Emergency exit access	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
813.a.	*	Passageways	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
813.b.	*	Space adjacent to exit	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
813.c.	*	Access to Type III & IV exits	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
813.d.	*	Unobstructed passageways	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
813.e.	*	No door between compartments	N		No door installed
813.f.	*	Door latches	N		No door installed
815.	*	Width of aisle	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
817. *	Max number of seats abreast	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
819.	Lower deck compartments	N		No lower deck compartment
	VENTILATION AND HEATING			
831.0.	Ventilation	P	25/525.831(e) independent control of air quantity and temperature between crew and passenger compartment is inappropriate.	
831.a.	Fresh air	C		
831.b.1.	Harmful gas, CO	C		
831.b.2.	Harmful gas, CO2	C		
831.c.	After probable failures	C		
831.d. *	Smoke evacuation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
831.e.	Temp & quantity of air	P		Only firefighting personnel will be occassionally carried in cabin, heating/cooling only provided by air interchange from cockpit same as original certification of the CL-215-1A10
831.f.	Independent control	N		Only firefighting personnel will be occassionally carried in cabin, heating/cooling only provided by air interchange from cockpit same as original certification of the CL-215-1A10
832.0.	Cabin ozone concentration	N		Aircraft max altitude is 20000 ft
832.a.	Cabin ozone concentration	N		Aircraft max altitude is 20000 ft
832.b.	Sea level equivalent	N		Aircraft max altitude is 20000 ft
832.c.	Compliance by analysis or test	N		Aircraft max altitude is 20000 ft
833.0.$	Heating systems	C		
833.a.$	Approval of heaters	C		
833.b.$	Engine exhaust heaters	N		No exhaust heater incorporated
	PRESSURIZATION			
841.0.	Pressurized cabins	N		Aircraft is unpressurized
841.a.	Cabin altitude requirements	N		Aircraft is unpressurized

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
841.b.1-3	Pressurization equipment	N		Aircraft is unpressurized
841.b.4-8	Instruments, sensors & warning	N		Aircraft is unpressurized
843.0.$	Test for pressurized cabins	N		Aircraft is unpressurized
843.a.$	Strength test	N		Aircraft is unpressurized
843.b.1-3$	Functional tests	N		Aircraft is unpressurized
843.b.4$	Doors	N		Aircraft is unpressurized
	FIRE PROTECTION			
851.0. *	Fire extinguishers	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
851.a. *	Hand extinguishers	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
851.b. *	Built-in fire extinguishers	N		Built in fire extinguishers not required
853.0.	Compartment interiors	C		
853.a.	Materials	C		
853.b.	Walls & ceiling linings	C		
855.0. *	Cargo & baggage compartments	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
855.a. *	Material testing	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
855.b. *	Equipement in compartment	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
855.c. *	Prevent interference	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
855.d. *	Scources of heat	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
855.e. *	Required classification	N		Not affected by modification, compliance

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				demonstrated for the original certification of the CL-215-1A10
857.0. *	Cargo compartmt classification	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
857.a. *	Classification	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
857.b-e.*	Classification	N		Cargo compartment is of class A
858.0.	Cargo compartment fire det.n	N		Not part of the original certification basis
858.a.	Visual indication	N		Not part of the original certification basis
858.b.	Temperature sensitivity	N		Not part of the original certification basis
858.c.	In-flight checking	N		Not part of the original certification basis
858.d.	Operational effectiveness	N		Not part of the original certification basis
859.0.	Combustion heater fire prot.n	C		
859.a.	Fire zones	C		
859.b.	Vent ducts in fire zone	C		
859.c.	Combustion air ducts	C		
859.d.	Heater controls	C		
859.e.	Safety controls	C		
859.f.	Air intakes	C		
859.g.	Exhaust	C		
859.h.	Fuel systems	C		
859.i.	Drains	C		
863.0.	Flammable fluid fire prot.n	C		
863.a.	Minimize fluid ignition	C		
863.a. *	Minimize fluid ignition	C		
863.b.	Compliance considerations	C		
863.b. *	Control fire	C		
863.b.2.	Flammability charac. of fluids	C		
863.c.	Action by crew	C		
863.d.	Define leakage areas	C		
865.	Fire prot.n, struct & controls	C		

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
867.0.	Fire prot.n, other components	C		
867.a.	Surfaces rear of nacelles	C		
867.b.	Surfaces not affected	C		
	MISCELLANEOUS			
871. *	Leveling means	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
875.0.$	Reinforcement near props	C		
875.a.$	Structure near tips	C		
	SUBPART E POWERPLANT			DOT Issue paper G-1
901.0.	Powerplant, installation	C		
901.a.	Definition	C		
901.b.	Installation requirements	C		
901.c.	Effects of failure	C		
901.d.	APU installation	N		No APU installed
903.0.	Engines	P		
903.a.	Engine type certificate	C		
903.b.	Engine isolation	C		
903.c.	Control of engine rotation	C		
903.d.1.	Eng. inst. hazards of failures	P	The shield will be an acceptable design feature in the Restricted / Utility Category, without analysis, as suitably minimizing the hazard due to rotorburst. Reference JAR-25 ACJ-N°2	DOT Issue Paper E-1 and FAA Issue Paper P-1
903.d.2.	Engine control devices	C		
903.e.	Restart capability	C		
905.0.	Propellers	C		
905.a.	Propeller type certificate	C		
905.b.	Power & speed limits	C		
905.c.	Blade pitch control reqm.ts	C		
907.0.$	Propeller vibration	C		
907.a.$	Stress determination	C		
907.b.$	Stress limits	C		
925.0.$	Propeller clearance	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
925.a.$	Ground clearance	C		
925.b.$	Water clearance	C		
925.c.$	Structural clearance	C		
929.$	Propeller deicing	N		Aircraft is not cleared for flight into known icing conditions FAR 25.1419 not yet applied to CL-215-6B11
933.0.	Reversing systems	C		
933.a.	Reversing system reqm.ts	C		
933.b.	Turbojet reversing systems	N		Not a turbojet
933.c.	In flight reverces & MOC	C		
933.d.	Turbojet reversing malfunction	N		Not a turbojet
934.	Turbojet reverser system tests	N		Not a turbojet
937.$	Turbo-prop drag limiting systm	C		FAA Issue Paper G-1
939.0.	Turbine eng. oprtng charactics	C		FAA Issue Paper G-1
939.a.	No adverse characteristics	C		
939.c.	Air inlet vibration	C		
941.0.	Variable inlet, exhaust	N		No variable inlet or exhaust
941.a.	System operation	N		No variable inlet or exhaust
941.b.	Effects on control	N		No variable inlet or exhaust
941.c.	Pilot strength limitations	N		No variable inlet or exhaust
943.	Negative acceleration	C		
945.0.	Trust/power augmentation sys	N		No thrust augmentation system
945.a.	General	N		No thrust augmentation system
945.b.	Fluid tanks	N		No thrust augmentation system
945.c.	Augmentation system drains	N		No thrust augmentation system
945.d.	Augmentation liquid tank capa.	N		No thrust augmentation system
945.e.	N/A to fuel injection systems	N		No thrust augmentation system
	FUEL SYSTEM			
951.0.	Fuel system, general	C		
951.a.	Ensure fuel supply	C		
951.b.	Power/flameout prot.n	C		
951.c.	Operation with water in fuel	C		
952.0.	Fuel system, analysis & test	C		

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
952.a.	Proper functioning	C		
952.b.	Heat exchanger failure	N		Powerplant installation does not include any heat exchangers except those supplied as part of the engine
953.0.$	Fuel system independence	C		
953.a&b$	Method for compliance	C		
954.0.	Fuel system lightning protect.	C		
954.a.	Direct lightning strikes	C		
954.b.	Swept lightnings strokes	C		
954.c.	Corona & streamering at vents	C		
955.0.	Fuel flow	C		FAA Issue Paper G-1
955.a.	Flow requirements	C		
955.b.1	Each reciprocating engine	N		CL-215-6B11 uses turboprops
955.b.2.	Uninterrupted flow	C		
957.$	Flow between intercon. tanks	C		
959.	Unusable fuel supply	C		
961.0.	Fuel, hot weather operation	C		
961.a.1	For reciprocating engine	N		CL-215-6B11 uses turboprops
961.a.2.	Test or Analysis	C		
961.a.5.	Fuel temperature	C		
963.0.	Fuel tanks: General	C		
963.a.	Ability to take loads	C		
963.b. *	Flexible tank liners	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
963.c.	Integral tanks	N		No integral tanks installed
963.d.	Tanks in fuselage	N		No tanks in the fuselage
963.f.	Pressurised fuel tanks	N		Tanks are not pressurized
965.0.	Fuel tank tests	C		
965.a.	Test definition	C		
965.b.	Metallic tank tests	N		Tank is non metallic
965.c.	Non-metallic tanks	C		
965.d.	Pressurised fuel tanks	N		Tank is unpressurized

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
967.0.$	Fuel tank installation	C		
967.a.1-2$	Fuel tank loads	N		No pads installed
967.a.3-4$	Fuel tank loads	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
967.b.$	Spaces adjacent to tank	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
967.c.$	Location	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
967.d.$	Nacelle as tank wall	C		
967.e.$	Isolated from personnel compar	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
969.	Fuel tank expansion space	C		
971.0.$	Fuel tank sump	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
971.a.$	Capacity	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
971.b.$	Drainage	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
971.c.$	Drain	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
973.0.	Fuel tank filler connection	C		
973.a.	Filler marking	C		
973.b.	Drainage	C		
973.c.	Fuel tight cap	C		
973.d.	Fuel filler bonding	N		Fuel filling point is pressurized

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
975.0.$	Fuel tank vents	C		
975.a.1-2$	Fuel tank vent	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
975.a.3i$	Fuel tank vent	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
975.a.3ii$	Fuel tank vent	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
975.a.4-6$	Fuel tank vent	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
975.a3iii$	Fuel tank vents	C		
975.b.$	Carburator vapour vents	N		Not applicable for turboprop
977.0.	Fuel tank outlet	C		FAA Issue Paper G-1
977.a.1.	Strainer requirements	N		Not applicable for turboprop
977.a.2.	Strainer requirements	C		
977.c.	Area	C		
977.d.	Diameter	C		
977.e.	Finger strainer	N		The fuel system does not contain any finger strainers
979.0.	Pressure fueling system	C		
979.a.	Manifold connenction	C		
979.b.	Auto shut-off means	C		
979.c.	Failure case	C		
979.d.	Fueling load conditions	C		
979.e.	Defueling load conditions	C		
981.0.	Fuel tank temperature	N		There are no heat sources or potential heat sources within the fuel tanks except as already certified on CL-215-1A10
981.a.	Temperature limit	C		
981.b.	Ensure below limit	N		There are no heat sources or potential heat

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				sources within the fuel tanks except as already certified on CL-215-1A10
981.b.	FUEL SYSTEM COMPONENTS			
991.0.$	Fuel pumps	C		
991.a.$	Main pumps	C		
991.b.$	Emergency pumps	C		
993.0.	Fuel system lines & fittings	C		
993.a.	Installations	C		
993.b.	Connection flexibility	C		
993.c.	Hoses with axial loads	C		
993.d.	Hose approval	C		
993.e.	High temprature	C	993.f. C.	
994.	Fuel system components	C		
995.0.	Fuel valves	C		
995.b.	Supports	C		
997.0.	Fuel strainer or filter	C		
997.a.	Draining & cleaning	C		
997.b.	Sediment trap	C		
997.c.	Mounting	C		
997.d.	Capacity	C		
999.0.	Fuel system drains	C		
999.a&b	Fuel system drains	C		
1001.0. *	Fuel jettisoning system	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1001.a-i *	System requirements	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
	OIL SYSTEM			
1011.0.$	General	C		
1011.a.$	Temperature limit	C		
1011.b.$	Usable capacity	C		
1011.c.$	Fuel / oil ratio	N		Fuel/oil ratio not higher than those prescribed in

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				(b)
1013.0.	Oil tanks	C		
1013.a.	Installation	C		
1013.b.	Expansion space	C		
1013.c.	Filler connections	C		
1013.d.	Vent	C		
1013.e.	Outlet	C		
1013.f.	Flexible oil tank liners	C		
1015.0.	Oil tank tests	C		
1015.a.	Loads	C		
1015.b.	Test provisions	C		
1017.0.$	Oil lines & fittings	C		
1017.a.$	Requirements	C		
1017.b.$	Breather lines	C		
1019.0.	Oil strainer or filter	C		
1019.a.	Strainer or filter req.ments	C		
1019.b.	Strainer/filter for recip. eng	N		Not applicable to turboprop
1021.0.	Oil systems drains	C		
1021.a.	Accessibility	C		
1021.b.	Locking means	C		
1023.0.$	Oil radiators	C		
1023.a.$	Loads	C		
1023.b.$	Location	C		
1025.0.$	Oil valves	C		
1025.a.$	Requirements	C		
1025.b.$	Shut-off means	C		
1025.c.$	Stops and support provisions	C		
1027.0.	Propeller feathering system	C		
1027.a.	Oil supply	C		
1027.b.	Capacity & availability	C		
1027.c.	Oil trap test	C		
1027.d.	Prevent contamination	C		
	COOLING			

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1041.	General	C		
1043.0.	Cooling tests	C		
1043.a.	General	C		
1043.b.	Max. ambient temp	C		
1043.c.	Correction factor	C		
1045.0.	Cooling test procedures	C		
1045.a.	Conditions	C		
1045.b.	Stabilize temperatures	C		
1045.c.	Test duration	C		
1045.d.	For reciprocating engine	N		Not applicable to turboprop
1045.e.	Taxiing test	C		
	INDUCTION SYSTEM			
1091.0.	Air induction	C		
1091.a.	Air supply	C		
1091.b.	Reciprocating engines	N		Not applicable to turboprop
1091.c.1.	Air intakes	C		
1091.c.2	Reciprocating engines Air int.	N		Not applicable to turboprop
1091.d.1.	Fuel leakage	C		
1091.d.2.	Water/FOD ingestion	C		
1091.e.	Compliance with 33.77	C		
1093.0.	Induction system icing prot.n	C		
1093.a.	Reciprocating engines	N		Not applicable to turboprop
1093.b.	Turbine engines	C		
1093.c.	Supercharged reciprocating eng	N		Not applicable to turboprop
1101.0.$	Carburator air preheat design	N		Not applicable to turboprop
1101.a.$	Ventilation	N		Not applicable to turboprop
1101.b.$	Inspection of exhaust manifold	N		Not applicable to turboprop
1101.c.$	Inspection of pre-heater	N		Not applicable to turboprop
1103.0.	Induction & air system ducts	C		FAA Issue paper G-1
1103.a.	Ducts recip engines	N		Not applicable to turboprop
1103.b.1.	Prevent induc. sys. failure	N		Not applicable to turboprop
1103.b.2.	Fire resistant ducts	C		
1103.c.	Connection flexibility	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1103.d.	Bleed air failures	C		
1103.e.	Fireproof of APU induction sys	N		No APU installed
1103.f.	Material of APU	N		No APU installed
1105.$	Induction system screens	N		No induction system screen installed
1107.$	Inter-coolers & after-coolers	N		No inter-coolers &/or after coolers are installed
	EXHAUST SYSTEM			
1121.0.	General	C		
1121.a.	Disposal of gases	C		
1121.b.	Fire hazard	C		
1121.c.	Exhaust system components	C		
1121.d.	Exhaust relation to drains	C		
1121.e.	Exhaust glare	C		
1121.f.	Ventilation	C		
1121.g.	Shroud design	C		
1123.0.	Exhaust piping	C		
1123.a.	Materials & expansion means	C		
1123.b.	Support loads	C		
1123.c.	Connection flexibility	C		
1125.	Exhaust heat exchangers	N		Not installed
1127.$	Exhaust driven turbo-superchar	N		Not installed
	POWERPLANT CONTROLS & ACCES.			
1141.0.	General	C		
1141.a.	Location	C		
1141.b.	Flexible control	C		
1141.c.	Strength & rigidity	C		
1141.d.	Position retention	C		
1141.f.	Powerplant valve controls	C		
1142.	Auxiliary power unit controls	N		No APU installed
1143.0.	Engine controls	C		
1143.a.	Seperate controls	C		
1143.b.	Control operation	C		
1143.c.	Positive response	C		
1143.d.	Fluid injection (not fuel)	N		No fluid injection installed

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1143.e.	Shut-off feature	C		
1145.0.	Ignition switches	C		
1145.a.	Switch for each engine	C		
1145.b.	Switch grouping	C		
1145.c.	Inadvertent operation	C		
1147.0.	Mixture controls	N		Not applicable to turboprop
1147.a.	Separate control	N		Not applicable to turboprop
1147.b.	Intermidiate position	N		Not applicable to turboprop
1147.c.	Accessible to both pilots	N		Not applicable to turboprop
1149.0.$	Propeller speed & pitch contls	C		
1149.a.$	Seperate controls	C		
1149.b.$	Control grouping	C		
1149.c.$	Propellers synchronization	C		
1149.d.$	Control location	C		
1153.0.	Propeller feathering controls	C		
1153.a.	Control for each prop	C		
1153.b.	Prevent inadvertent movement	C		
1155.	Reverse thrust & prop pitch	C		
1157.$	Carburator air temp controls	N		Not applicable to turboprop
1159.$	Supercharger controls	N		Not applicable to turboprop
1161.$	Fuel jettisoning sys controls	N		No fuel jettisoning system installed
1163.0.	Powerplant accessories	C		
1163.a.	Engine mounted	C		
1163.b.	Electrical equipment	C		
1163.c.	Continued rotation, failure	N		No accessories installed
1165.0.	Engine ignition systems	C		
1165.a.	Battery ignition	C		
1165.b.	Capacity	C		
1165.c.	Design	C		
1165.e.	Wire routing	C		
1165.f.	Circuit independence	C		
1165.g.	Battery discharge warning	C		
1167.0.	Accessory gearboxes	N		The powerplant installation does not include any

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					accessories gearbox except that which is approved as part of the certified engine
1167.a.		Specified tests	N		The powerplant installation does not include any accessories gearbox except that which is approved as part of the certified engine
1167.b.		Requirements	N		The powerplant installation does not include any accessories gearbox except that which is approved as part of the certified engine
1167.c.		Misalignments & torsional load	N		The powerplant installation does not include any accessories gearbox except that which is approved as part of the certified engine
		POWERPLANT FIRE PROTECTION			
1181.0.		Designated fire zones	C		
1181.a.		Zone definition	C		
1181.b.		Zone requirements	C		
1182.0.		Nacelle areas, eng pad strctrs	C		
1182.a.		Associated requirements	C		
1182.b.		Landing gear bays	N		Landing gear does not retract into these areas
1183.0.		Flammable fluid-carrying comp.	C		
1183.a.		Lines fittings & components	C		
1183.a.	*	Lines fittings & components	C		
1183.b.		Exemptions to para. 25.1183(a)	C		
1183.b.	*	Exemptions to para. 25.1183(a)	C		
1185.0.		Flammable fluids	C		
1185.a.		Tank location	C		
1185.a.	*	Tank location	C		
1185.b.		Separation airspace	C		
1185.b.	*	Separation airspace	C		
1185.c.		Absorbant materials	C		
1185.c.	*	Absorbant materials	C		
1187.0.$		Drainage, venting, fire zones	C		
1187.a.$		Effective drainage	C		
1187.b.$		Vapor venting	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1187.c.$		Vent location	C		
1187.d.$		Effective venting	C		
1187.e.$		Shut-off means	C		
1189.0.		Shut-off means	C		
1189.a.		Means & exceptions	C		
1189.a.	*	Means & exceptions	C		
1189.b.		Fuel SOV	C		
1189.c.		Isolation of SOV	C		
1189.c.	*	Isolation of SOV	C		
1189.d.		Location or fireproof	C		
1189.d.	*	Location or fireproof	C		
1189.e.		Flamm fluid draining	C		
1189.e.	*	Flamm fluid draining	C		
1189.f.		Prevent inadvertent ops	C		
1189.f.	*	Prevent inadvertent ops	C		
1189.g.		Tank to engine SOV	C		
1189.h.		SOV pressure relief	C		
1191.0.$		Firewalls	C		
1191.a.$		Location	C		
1191.b.$		Design	C		
1192.		Engine accessory diaphragm	N		Not applicable to turboprop
1193.0.$		Cowling & nacelle skin	C		
1193.a.$		Load capability	C		
1193.b.$		Drainage & ventilation	C		
1193.c.$		Airplanes with a diaphragm	N		Airplane does not have a diaphragm
1193.d.$		Fireproof components	C		
1193.e.$		Restricting spread of fire	C		
1195.0.		Fire extinguishing systems	C		DOT Issue Paper E-2
1195.a.		Where required	C		
1195.b.		Tests	C		
1195.c.		For nacelles	C		
1197.0.		Fire extinguishing agents	C		DOT Issue Paper E-2
1197.a.		Agent capability	C		

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1197.b.	Prevent harmful concentrations	C		
1199.0.	Extinguishing agent containers	C		
1199.a.	Pressure relief	C		
1199.b.	Discharge line location	C		
1199.c.	Pressure indication	C		
1199.d.	Operational temperature	C		
1199.e.	Pyrotechnic capsule	C		
1201.0.$	Fire extinghsing sys materials	C		
1201.a.$	No chemical reaction	C		
1201.b.$	Fireproof components	C		
1203.0.	Fire detector system	C		
1203.a.	Location	C		
1203.b.1.	Loads	C		
1203.b.2.	Failure warning-severing	C		
1203.b.3.	Failure warning-short circuit	C		
1203.c.	Detector contamination	C		
1203.d.	Flight check	C		
1203.e.	Fire-resistant components	C		
1203.f.	Routing in other fire zones	C		
1203.g.	Alarm activation time	C		
1207.0.	Compliance	C		
1207.a-d	Test or other method	C		DOT Issue Paper G-1
	SUBPART F EQUIPMENT			
	GENERAL			
1301.0.$	Function & installation	C		DOT Issue Paper F-8 & F-17
1301.a.$	Design	C		
1301.b.$	Labeled	C		
1301.c.$	Installed to limitations	C		
1301.d.$	Function properly	C		
1301-1$	Operations after cold soak-CAM	C		
1303.0.	Flight & navigation inst.mts	C		
1303.a. *	Those visible by both pilots	N		Not affected by modification, compliance demonstrated for original certification of the CL-

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					215-1A10
1303.b.	*	Installed at each station	N		Not affected by modification, compliance demonstrated for original certification of the CL-215-1A10
1303.c.		For turbine aircraft	C		
1305.0.		Powerplant instruments	C		FAA Issue Paper G-1
1305.a.		All aircraft	C		
1305.b.		Reciprocating engine airplanes	N		Not applicable to turboprop
1305.c.		Turbine aircraft	C		
1305.d.		Turbojet engine airplanes	N		Not applicable to turboprop
1305.e.		Turbo-prop aircraft	C		
1305.f.		Fluid system for thrust	C		
1307.0.		Miscellaneous equipment	C		
1307.a.	*	Seat for each occupant	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1307.b.		Electrical generation	C		
1307.c.		Electrical protective devices	C		
1307.d.		Two-way radio communications	C		
1307.e.		Two systems for radio navigat.	C		
1307.f.		Wind shield wiper	C		
1307.g.		Ignition switch	C		
1307.h.	*	Portable fire extinguishers	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1309.0.		Equipment, systems & install.	P	Full compliance will be demonstrated for powerplant installation and electrical generation system. For 25.1309(b), partial compliance for the powered elevator and rudder will be demonstrated. Other areas not affected by engine replacement will comply with the pre-amendment 25-23 standard.	
1309.a.		Perform intended function	C		
1309.a.	*	Perform intended function	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1309.b.		Improbable/Extremely improb.	P	Partial compliance for power control systems only The systems comply exept that probability is "extremely remote" in certain cases instead of "extremely improbable".	- It is essentially based on the original certification basis but meets the intent of amendment 25-61 as appropriate to the restricted / utility role. - The intent is to allow continued safe flight and landing after a single failure, or combination of failures, control jam and runaway not shown to be extremely remote (see comments 25.21(e)) - A manual activated disconnect at the cockpit is introduced to split the elevator control system so that either pilot or co-pilot can retain control of the aircraft in the event of a jam in the opposite system.
1309.b.	*	Pevent hazards	C		
1309.c.		Warning information	C		
1309.c.	*	Power supply essential load	C		
1309.d.		Compliance with (b)	C		
1309.d.	*	Compliance with (c)(2 & 3)	C		
1309.e.		Power supply for essential lds	C		
1309.e.	*	Critical environmental cond.	C		
1309.f.		Compliance with (e)(2) & (3)	C		
1309.g.		Compliance with (a) & (b)	C		
		INSTRUMENTS: INSTALLATION			DOT Issue Paper F-13 and F-12
1321.0.		Instruments-arrangmt & visibty	C		
1321.a.		Visibility	C		
1321.b.		Location of flight instruments	C		
1321.c.		Location, powerplant instments	C		
1321.d.		Panel vibration	C		
1321.e.		Visible in all conditions	C		
1322.0.		Warning caution & advis. light	C		
1322.a.		Warning lights	C		
1322.b.		Caution lights	C		
1322.c.		Safe lights	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1322.d.		Other lights	C		
1323.0.		Airspeed indicating system	C		
1323.a.		Approved with minimum error	C		
1323.b.		Calibration error	C		
1323.c.		Airspeed error	C		
1325.0.		Static pressure systems	C		
1325.a.		Instrument venting	C		
1325.b.		Static port design	C		
1325.d.		Pressure altimeter	C		
1325.e.		Pressure altitude error	C		
1325.f.	*	Altimeter correction devices	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1325.g.	*	Means to select static source	N		Airplane is unpressurized
1325.h.	*	Unpressurised aeroplanes	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1326.0.		Pitot heat indication systems	N		No pitot heat indication system installed
1326.a&b.		Indication	N		No pitot heat indication system installed
1327.0.	*	Magnetic direction indication	N		Not affected by modification, compliance demonstrated for the original cerfification of the CL-215-1A10
1327.a.	*	Installed for accuracy	N		Not affected by modification, compliance demonstrated for the original cerfification of the CL-215-1A10
1327.b.	*	Compensation limits	N		Not affected by modification, compliance demonstrated for the original cerfification of the CL-215-1A10
1329.0.		Automatic pilot system	N		No automatic pilot system installed
1329.a.		Approval & disengagement	N		No automatic pilot system installed
1329.b.		Indication of actuating device	N		No automatic pilot system installed
1329.c.		Control accessibility	N		No automatic pilot system installed
1329.d.		Quick release controls	N		No automatic pilot system installed

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1329.e.	Attitude controls	N		No automatic pilot system installed
1329.f.	Prevent hazardous loads	N		No automatic pilot system installed
1329.g.	Prevent improper operation	N		No automatic pilot system installed
1329.h.	Mode indication	N		No automatic pilot system installed
1331.0.	Instruments using power supply	C		
1331.a.1.*	Indication of power supply	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1331.a.2.	Two independent power scources	C		
1331.b.	Instrument definition	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1333.0. *	Instrument systems	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1333.a. *	Connections to other stations	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1333.b. *	Data available after failure	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1333.c. *	Additional instruments	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1335.	Flight director systems	N		No flight director system installed
1337.0.	Powerplant instruments	C		
1337.a.	Instrument lines	C		
1337.b.	Fuel quantity indicator	C		
1337.c.	Fuel flow meter system	C		
1337.d.	Oil quantity indicator	C		
1337.e.	Prop blade position indicator	C		
1337.f. *	Fuel pressure indicator	N		Not affected by modification, compliance demonstrated for the original certification of the

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				CL-215-1A10
1337.f. *	ELECTRICAL SYSTEMS & EQUIPMENT			
1351.0.	General	C		
1351.a.	Electrical system capacity	C		
1351.b.1.	Generating system, function	C		
1351.b.2.	Generating system, failures	C		
1351.b.3.	Generating system, limits	C		
1351.b.4.	Generating system, transients	C		
1351.b.5.	Generating system, disconnect	C		
1351.b.6.	Generating system, indication	C		
1351.c.	External power	C		
1351.d.	Flight without norm elec power	C		DOT Issue Paper F-14
1353.0.	Elec equip & installations	C		
1353.a.	Controls & wiring	C		
1353.b.	Cable grouping	C		
1353.c.1.	Battery, design & installation	C		
1353.c.2.	Compliance by test	C		
1353.c.3-6*	Design & operation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1355.0.	Distribution system	C		
1355.a.	Configuration	C		
1355.c.	Independent sources	C		
1357.0.$	Circuit protective devices	C		
1357.a.$	Automatic devices	C		
1357.b.$	Protective & control devices	C		
1357.c.$	Resettable device	C		
1357.d.$	Circuit breaker location	C		
1357.e.$	Circuit protection	C		
1357.f.$	Fuses	C		
1357.g.$	Auto reset c/b	C		
1359.0.	Elec sys. fire & smoke prot.	C		
1359.a.	Requirments	C		

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FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1359.b.		Fire resistance	C		
1359.c.		Power cable design & location	C		
1359.d.		Insulation	C		
1363.0.$		Electrical system tests	C		
1363.a.$		Lab. test conditions	C		
1363.b.$		Requirements for flight tests	C		
		LIGHTS			
1381.0.$		Instrument lights	C		DOT Issue Paper F-13
1381.a.$		Installation & readability	C		
1381.b.$		Control of intensity	C		
1383.0.	*	Landing lights	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1383.a.	*	Approval & installation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1383.b.	*	Switch arrangement	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1383.c.	*	Indicate when extended	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1385.0.	*	Position light system instltn	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1385.a.	*	General	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1385.b.	*	Forward position lights	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1385.c.	*	Rear position light	N		Not affected by modification, compliance demonstrated for the original certification of the

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1385.d. *	Light covers & colour filters	N		CL-215-1A10 Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1385.e. *	Passing light	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1387.0.	Position light system dihedral	C		
1387.a.	Forward and rear position	C		
1387.b.	Dihedral angle L (left)	C		
1387.c.	Dihedral angle R (right)	C		
1387.d.	Dihedral angle A (aft)	C		
1387.e.	Exceptions for rear light	N		No rear position light installed
1389.0.$	Postn light distrib & intnsty	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1389.a.$	General	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1389.b.$	Fwd & rear position lights	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1391.$	Minimum horizontal intensities	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1393.$	Minimum vertical intensities	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1395.0$	Max overlapping intensities	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1395.a&b$	Area A & B	N		Not affected by modification, compliance demonstrated for the original certification of the

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FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				CL-215-1A10
1397.0. *	Color specification	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1399.0.$	Riding light	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1399.a&b$	Anchor & external hung lights	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.0. *	Anticollision light system	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.a. *	General	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.b. *	Field of coverage	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.c. *	Flashing characteristics	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.d. *	Color	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.e. *	Light intensity	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1401.f. *	Minimum effective intensities	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1403.	Wing icing detection lights	N		Wing icing detection system not installed
	SAFETY EQUIPMENT			

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CL-215-6811 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1411.0.	*	General	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.a.	*	Accessibility	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.b.	*	Stowage provisions	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.c.	*	Emergency exit descent device	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.d.	*	Liferafts	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.e.	*	Long-range signaling device	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.f.	*	Life preserver stowage provsn	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1411.g.	*	Life line stowage provisions	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1413.0.	*	Safety belts	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1413.a.	*	Sign switch for both pilots	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1413.b.	*	Belt strength	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1413.c.	*	Load factors for attachment	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.0.	*	Ditching equipement	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.a.	*	Compliance	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.b.	*	Additional raft requirements	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.c.	*	Approved equipment on raft	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.d.	*	Survival type ELT	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1415.e.	*	Approved flotation means	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1416.		Pneumatic de-icer boot system	N		Aircraft not cleared for flight in known icing conditions - Engine inlet de-icing boot complies
1419.0.		Ice protection	N		Aircraft not cleared for flight in known icing conditions
1419.a.		Compliance	N		Aircraft not cleared for flight in known icing conditions
1419.b.		Ice conditions of appendix C	N		Aircraft not cleared for flight in known icing conditions
1419.c.		Required tests	N		Aircraft not cleared for flight in known icing conditions
1419.d.		Reference to other subparts	N		Aircraft not cleared for flight in known icing conditions

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1421.	Megaphones	N		Aircraft is not equipped with megaphones
	MISCELLANEOUS EQUIPMENT			
1431.0.$	Electronic equipment	C		
1431.a.$	Installation considerations	C		
1431.b.$	Power supply	C		
1431.c.$	Effect on other units	C		
1433.$	Vacuum systems	N		Aircraft is unpressurized
1435.0.	Hydraulic systems	C		
1435.a.1.	Design pressures	C		
1435.a.1.*	Design pressures	C		
1435.a.2.	Pressure indication	C		
1435.a.2.*	Pressure indication	C		
1435.a.3.*	Pressure indication	C		
1435.a.4.	System pressure limits	C		
1435.a.4.*	System pressure limits	C		
1435.a.5.	Element installation & fluids	C		
1435.a.5.*	Element installation & fluids	C		
1435.a.6.	Flexibility for connections	C		
1435.a.6.*	Flexibility for connections	C		
1435.a.7.	Transiant pressure	C		
1435.a.8.	Loss of hydraulic fluid	N		
1435.b. *	Tests, installation	C		
1435.b.1	Tests	C		
1435.b.2	Compliance with 1309	P	Safe flight and landing is possible after any failure in the hydraulic system	
1435.c.	Fire protection	C		
1435.c. *	Fire protection	C		
1438.0.	Pressurization & pneumatic sys	N		No pressurization system
1438.a.	Pressurization burst test	N		No pressurization system
1438.b.	Pneumatic burst test	C		
1438.c.	Analysis or test & analysis	N		
1439.0. *	protective breathing equipment	N		Not affected by modification, compliance demonstrated for the original certification of the

MODEL CL-215-6B11
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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				CL-215-1A10
1439.a. *	When required	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1439.b. *	Operational criteria	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1441.0.$	Oxygen equipment & supply	N		Certification with supplement oxygen equipment not required
1441.a.$	Requirements	N		Certification with supplement oxygen equipment not required
1441.b.$	Free from hazards	N		Certification with supplement oxygen equipment not required
1441.c.$	Quantity indication	N		Certification with supplement oxygen equipment not required
1441.d.$	High altitude operation	N		Certification with supplement oxygen equipment not required
1443.0.$	Min flow of supplemental O2	N		No continuous flow equipment is installed
1443.a.$	Continuous flow equipment	N		No continuous flow equipment is installed
1443.b.$	Demand equipment	N		No continuous flow equipment is installed
1443.c.$	Mass flow for pax & attendants	N		No continuous flow equipment is installed
1443.d.$	First aid oxygen	N		No continuous flow equipment is installed
1443.e.$	Portable oxygen equipment	N		No continuous flow equipment is installed
1445.0.$	Equipment stds distrib system	N		No standard equipment for oxygen distribution is installed
1445.a.$	Supply requirements	N		No standard equipment for oxygen distribution is installed
1445.b.$	Unit types which may be used	N		No standard equipment for oxygen distribution is installed
1447.0.	Dispensing unit standard	N		No oxygen dispensing units are installed
1447.a.	Unit design	N		No oxygen dispensing units are installed
1447.b.	Operation @ 25000 ft	N		No oxygen dispensing units are installed
1447.c.	Above 25000 ft	N		No oxygen dispensing units are installed

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1449.$	Means to determine use of O2	N		No oxygen dispensing units are installed
1450.0.	Chemical oxygen generators	N		No chemical oxygen generators are installed
1450.a.	Definition	N		No chemical oxygen generators are installed
1450.b.	Design and installation	N		No chemical oxygen generators are installed
1450.c.	Replaceable generators	N		No chemical oxygen generators are installed
1451.0.$	Fire protection O2 equipment	N		No oxygen equipment installed
1451.a.$	No equipment in fire zone	N		No oxygen equipment installed
1451.b.$	Protection from heat	N		No oxygen equipment installed
1451.c.$	Install to prevent ignition	N		No oxygen equipment installed
1453.0.$	Protection O2 equipt, rupture	N		No oxygen equipment installed
1453.a&b.$	Protections	N		No oxygen equipment installed
1455. *	Draining of fluids, freezing	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1457.0.	Cockpit voice recorders	N		No cockpit voice recorder installed
1457.a.	Approval & parameters	N		No cockpit voice recorder installed
1457.b.	Microphone position	N		No cockpit voice recorder installed
1457.c.	Separate channels	N		No cockpit voice recorder installed
1457.d.	Installation	N		No cockpit voice recorder installed
1457.e.	Location & mounting	N		No cockpit voice recorder installed
1457.f.	Bulk erasure device	N		No cockpit voice recorder installed
1457.g.	CVR color	N		No cockpit voice recorder installed
1459.0.	Flight recorders	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1459.a.	Requirements & features	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1459.b.	Location & mounting	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1459.c.	Correlation	N		Not affected by modification, compliance demonstrated for the original certification of the

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					CL-215-1A10
1459.d.		FDR color	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1461.		High energy rotors	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
		SUBPART G OPERATNG LIMS & INFO			
1501.0.		General	C	Limitations, procedures and information appropriate to safe conduct of particular special purpose operations for which approval is desired must be established and presented in the Airplane Flight Manual. Reasonably expected variations from the established procedures must be investigated and, if such variations could result in a hazardous flight condition in service, appropriate warning information must be presented in the Airplane Flight Manual.	
1501.a.		Data to be established	C		
1501.b.		Data in markings & placards	C		
1501.c.		Available to crew member	C		
		OPERATING LIMITATIONS			
1503.$		Airspeed limitations	C		
1505.		Maximum operating limit speed	C		
1507.$		Maneuvering speed	C		
1511.$		Flap extended speed	C		
1513.$		Minimum control speed	C		
1515.0.	*	Landing gear speeds	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1515.a.	*	Vlo	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1515.b.	*	Vle	N		Not affected by modification, compliance

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
					demonstrated for the original certification of the CL-215-1A10
1519.$		Weight distribution	C		
1521.0.		Powerplant limitations	C		
1521.a.		General	C		
1521.b.		Take-off operation	C		
1521.c.		Continuous operation	C		
1521.d.		Fuel grade or designation	C		
1521.e.		Ambient temperature	C		
1522.$		Aux power unit limitation	N		No auxiliary power unit installed
1523.0.	*	Minimum flight crew	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1523.a.	*	Workload	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1523.b.	*	Accessibility & ease, controls	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1523.c.	*	Kind of operation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1525.$		Kinds of operation	C		
1527.$		Maximum operating altitude	C		
1529.		Maintenance manual	P	The concept of Continued Airworthiness of the CL-215-6B11 will be identical to that for the CL-215-1A10. For the Maintenance Manual, compliance will be demonstated with the original basis of certification, which included a Maintenance Manual but did not include FAR 25.1529. Regarding Appendix H25.3(a)(3), the inspections for engine mounts and nacelle, resulting from the damage tolerance assessement of FAR 25.571, will be included in the Maintenance Specification.	FAA Issue Paper G-1

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1531.$	Maneuvering flt load factors	C		
1533.0.	Additionl operatng limitations	C		Reference AMA 525/10-x DOT Issue Paper G-1
1533.a.1.	Max. take-off weights	C		
1533.a.2.	Max. landing weights	C		
1533.a.3.	Min. take-off distances	C	Compliance with 25.113(a)(2) and 25.103 only.	
1533.b.	Extremes for variable factors	C		
	MARKINGS AND PLACARDS			
1541.0.$	General	C	For compliance with this requirement the aircraft must contain markings and placards corresponding to the Restricted category. Additionaly, a placard installed in clear view of each pilot must identify the category for which the aircraft is marked.	
1541.a.$	Specific marks, placards & inf	C		
1541.b.1.$	Conspicuous location	C		
1541.b.2.$	Not easily erased	C		
1543.0.$	Instrument marking, general	C		
1543.a&b.$	Markings	C		
1545.$	Airspeed limitation info.	C		
1547.$	Magnetic direction indication	C		
1549.0.	Powerplant & APU instruments	C		
1549.a.	Max & min limits	C		
1549.b.	Normal operating range	C		
1549.c.	T.O. and precautionary range	C		
1549.d.	Vibration stress marks	C		
1551.$	Oil quantity indicator	C		
1553.$	Fuel quantity indecator	C		
1555.0.$	Control markings	C		
1555.a.$	Function & method of operation	C		
1555.b.$	Aerodynamic control	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1555.c.1&2$	Powerplant fuel controls	N		Not affected by modification, compliance

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
				demonstrated for the original certification of the CL-215-1A10
1555.c.3.$	Valve control (powerplant)	C		
1555.d.1.$	Emerg. control color red	C		
1555.d.2.$	Visual indicator	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1557.0.	Miscellaneous marks & placards	C		FAA Issue Paper G-1
1557.a.	Baggage, cargo comps & ballast	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1557.b.1&2	Fuel and oil filler openings	C		
1557.b.3.	Additional reqmt for CAM	C		
1557.c. *	Emergency exit placards	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1557.d. *	Doors	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1561.0. *	Safety equipment	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1561.a. *	Equipment control markings	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1561.b. *	Equipment location marking	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1561.c. *	Stowage provision marking	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1561.d. *	Liferaft marking	N		Not affected by modification, compliance demonstrated for the original certification of the

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1561.e. *	Survival equipment marking	N		CL-215-1A10 Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1563.$	Airspeed placard	C		
	AIRPLANE FLIGHT MANUAL			
1581.0.	General	C	Limitations, performance information and operating procedures required by 25/525.1581 through 1587, as modified by the applicable special conditions contained in this document RAO-215-100, will be presented in the Airplane Flight Manual.	DOT Issue Paper F-5 and F-9
1581.a.	Information required	C		
1581.b.	Approved parts of manual	C		
1581.d.	List of contents	C		
1581.e.	Units-CAM only	C		
1581.f.	Operating rules-CAM only	C		
1583.0.	Operating limitations	C	Same as FAR/CAM 25/525.1581.	DOT Issue Paper G-1
1583.a.	Airspeed limitation	C		
1583.b.	Powerplant limitations	C		
1583.c.	Weight & loading instructions	C		
1583.d. *	Flight crew	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1583.e.	Kinds of operation	C		
1583.f.	Altitudes turbine engine airpl	C		
1583.h. *	Add. operating limitation	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1583.i.	Maneuvering load factors	C		
1585 0.	Operating procedures	C	Same as FAR/CAM 25/525.1581.	
1585 a.1-4	Procedures, engine	C		
1585 a.6-8	Procedures, engine/turbulence	C		
1585.a.10.	Disconnecting battery	C		

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1585.a.5 *	Ditching	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1585.a.9	Deployed thrust	N		Not a turbojet
1585.b.	Fuel system information	C		
1585.c.	Buffet onset envelope	C		
1585.d.	Zero fuel read	C		
1585.e.	Inf. total usable fuel	C		
1587.0.	Performance information	C	Same as FAR/CAM 25/525.1581.	DOT Issue paper G-1 and F-5
1587.a.	Free/indicated air temp. convr	N		Not affected by modification, compliance demonstrated for the original certification of the CL-215-1A10
1587.b.	Actual performance	C		
FAR21.25b2	Issue of type certificate	C		FAA Issue Paper G-2
FAR21.29.	Issue of type certificate	C		FAA Issue Paper G-2
SFAR27.00.	SFAR 27 ISSUE 2	C		
SFAR27.11.	Compliance with AW Regulations	C		
SFAR27.13.	Engine classes & test config.	C		
SFAR27.14.	fuel venting & exhaust emmiss.	C		DOT Issue Paper G-1

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
	SUBPART B FLIGHT			
25.0.	Weight limits:	C		
25.a.	Maximum weights	C		
25.a.1.	Highest selected weight	C		
25.a.2.	Highest structures & flt. wgt.	C		
25.b.	Minimum weight	C		
25.b.1.	Lowest selected weight	C		
25.b.2.	Lowest struct. & flight weight	C		
25.b.3.	Lowest weight	C		
	PERFORMANCE			
101.0.	Performance general	C		
101.a-e.	Performance, general	C		
101.f.	Performance general	C		
101.g.	Performance general	C		
101.h.	Performance general	C		
105.0.$	Takeoff	C		
105.a.$	T.O.speed acl-stop distance	C		
107.0.	Take-off speeds	C		
107.a.	Calibrated VEF (C.E.F.)	C		
107.b.	Min. T.O. safety sp.(V2min)	C		
107.c.	T.O. safety sp. (V2)	C		
107.d.	Minimum unstick sp. (Vmu)	C		
107.e.	Rotation speed (Vr)	C		
107.e.1.	(iii) Rotation speed (Vr)	C		
107.e.1..	(iv) Rotation speed (Vr)	C		
107.e.2.	Rotation speed (Vr)	C		
107.e.3.	Rotation speed (Vr)	C		
107.e.4.	Rotation speed (Vr)	C		
107.f.	Lift off speed (Vlof)	C		
109.0.	Accelerate- stop distance:	C		
109.a.1.	Definition	C		
109.a.2.	Definition	C		
109.d.	Factors for other surfaces	C		

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UTILITY CATEGORY CERTIFICATION BASIS

CL-215-6811 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
111.0.	Take-off path	C		
111.a.	Definition	C		
111.b.	Landing gear position	C		
111.c.	Conditions & configuration	C		
111.d.	Continuous demonstrated T.O.	C		
113.0.	Take-off dist. & take-off run	C		
113.a.1.	Take-off distance	C		
113.a.2.	Take-off distance	C		
113.b.	Clearway	C		
115.0.$	Take-off flight path	C		
115.a.$	Definition	C		
115.b.$	Net take-off flight path	C		
115.c.$	Reducing climb gradient	C		
117.0.$	Climb, general	C		
119.0.$	Baulked Landing A.E.O.	C		
119.a.$	Thrust requirements	C		
119.b.$	Climb speed	C		
121.0.$	Climb Requirement	C		
121.a.$	Climb:O.E.I. Landing gear ext.	C		
121.b.$	Climb:OEI TO landing gear ext.	C		
121.c.$	Climb: OEI Final takeoff	C		
121.d.$	Climb:O.E.I. approach	C		
123.0.$	En route Climb, OEI	C		
123.a.$	Various config. & conditions	C		
123.b.$	O.E.I. net flight path	C		
125.0.$	Landing	C		
125.f.$	Engine dependent devices	C		
	CONTROLABILITY & MANEUVABILITY			
149.0.	Minimum control speed	C		
149.f.	Definition of Vmcl	C		
149.h.	Vmcl, rudder forces	C		
	MISCELLANEOUS FLIGHT REQ'TS			
253.0.	High speed characteristics	C	No Mmo boundary	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525		HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
253.a.		Speed increase & recovery	C	No Mmo boundary	
253.b.		Maximum speed for stability	C	No Mmo boundary	
255.0.		Out-of-trim characteristics	C		
255.a.		Satisfactory maneuvouring	C		
		SUBPART C STRUCTURES			
		FLIGHT MANEUVER & GUST CONDITI			
333.0.$		Flight envelope	C		
333.a.$		General	C		
333.b.$		Maneuvering envelope	C		
333.c.$		Gust envelope	C		
337.0.	*	Limit maneuvering load factor	C		
337.a.	*	Symmetrical maneuvers	C		
337.b.	*	Positive limit man. load fact.	C		
337.c.	*	Negative maneuvering load fact	C		
337.d.	*	Lower factors	C		
571.0.		Damage tolerance & fat. eval.	P	A damage tolerance assessment will be provided for the engine mounts and nacelle (including testing), horizontal tail leading edge slat and finlets based on an appropriate load spectrum.	Dot issue paper E-5
629.0.		Flutter, deform & F.S criteria	P	Complies with up to ammendment 61 for propeller whirl flutter, for the rest of the aircraft compliance is shown for this requirement prior to ammendment 46.	Dot issue paper E-5
671.0.		General	P		Dot Issue Paper E-9
903.d.1.		Eng. inst. hazards of failures	P		Dot Issue Paper E-8
1435.0.		Hydraulic systems	C		Dot Issue Paper E-6
		SUBPART G OPERATNG LIMS & INFO			
1501.0.		General	C	It will be acceptable to estabish separate limitations, procedures and information for operation in the utility category.	
1501.a.		Data to be established	C		
1501.b.		Data in markings & placards	C		
1501.c.		Available to crew member	C		
		OPERATING LIMITATIONS			
1503.$		Airspeed limitations	C		
1505.		Maximum operating limit speed	C		

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
1519.$	Weight distribution	C		
1525.$	Kinds of operation	C		
1533.0.	Additionl operatng limitations	C		
1533.a.1.	Max. take-off weights	C		
1533.a.2.	Max. landing weights	C		
1533.a.3.	Min. take-off distances	C		
1533.b.	Extremes for variable factors	C		
	MARKINGS AND PLACARDS			
1541.0.$	General	C	The aircraft must contain markings and placards corresponding to either the Restricted or Utility category. Additionally, a placard installed in clear view of each pilot must identify the category for which the aircraft is marked.	
1541.a.$	Specific marks, placards & inf	C		
1541.b.1.$	Conspicuous location	C		
1541.b.2.$	Not easily erased	C		
	AIRPLANE FLIGHT MANUAL			
1581.0.	General	C	Limitations, performance information and operating procedures required by 25/525.1581 through 1587, are modified by the applicable special conditions contained in RAO-215-100. Those considered appropriate for the Utility Category aircraft will be presented as a supplement to the Restricted Category Flight Manual.	
1581.a.	Information required	C		
1581.b.	Approved parts of manual	C		
1581.d.	List of contents	C		
1581.e.	Units-CAM only	C		
1581.f.	Operating rules-CAM only	C		
1583.0.	Operating limitations	C	Same as 25/525.1581.	
1583.c.	Weight & loading instructions	C		
1583.e.	Kinds of operation	C		
1583.i.	Maneuvering load factors	C		
1587.0.	Performance information	C	Same as 25/525.1581.	
1587.b.	Actual performance	C		

MODEL CL-215-6B11
UTILITY CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLI-CABILITY	DEVIATION	REASON / COMMENTS
FAR21.35.	Function & Reliability	C		
FAR21.35.f	Function & Reliability	C		
FAR3600.	FAR PART 36	C		
FAR3601.	Noise standards:Aircaft type	C		
FAR3602.	Airworthiness certification	C		
FAR3603.	Means of compliance	C		

SUBJECT :

SUPPLEMENT 2

1.0 Introduction

This Supplement 2 is to record the additional and different minimum certification standards for the CL-415 with respect to the CL-215T of the same Model CL-215-6B11. While the CL-215T is a turboprop retrofit conversion of the reciprocating engine powered Model CL-215-1A10, the CL-415 is the turboprop production version. Both the CL-215T and CL-415 are the same Model CL-215-6B11. The production version CL-415 features certain design improvements over the CL-215T to increase its capability as a water bomber.

1.1 Product Improvement Modifications

The following is a list of product improvement modifications introduced to the Model CL-215-6B11 (CL-215T) to define the basic production CL-415 version of the Model CL-215-6B11.

1.1.1 Airframe / Structures Improvements

- Fuselage, wing and empennage structural reinforcements, for after-scooping weight increase from 46 000 lb to 48 000 lb and a pre-scoop weight increase from 36 200 lb to 37 000 lb.
- Airframe structural provisions for :
  - 4 door water system,
  - APU installation and air conditioning unit / cooling ducts

1.1.2 Electrical and Avionics Improvements

- Dual Electronic Flight Instrument System (EFIS)
- Radio Altimeter System
- Master Warning, Caution and Advisory System
- Dual Attitude and Heading Reference System (AHRS)
- HF Communication System
- Angle of Attack System
- Dual Integrated Navigation
- Dual Air Data System
- Four Door Water Drop System
- Dual Integrated Communication
- Electrical Generation System
- Ice and Rain Protection System
- Dual Integrated Radio Management
- Fire Detection and Extinguishing Systems
- Integrated Instrument Display System
- Dual Integrated Audio
- Lighting and Warning Systems

1.1.3 Systems and Equipment Improvements

- Four-Tank Water System
- Control Surface Gust Locks
- Elevator Emergency Trim
- Powered Control Actuators
- Flight Controls and Engine Controls
- Hydraulic System
- Rudder Trim Compensator
- Foam System (option)

1.1.4 Propulsion Improvements
- Auxiliary Power Unit (option)
- Compressor Wash System
- Oil Replenishment System

1.1.5 Environmental and Air Conditioning Improvements
- Fresh Air System
- Air Cooling System
- Avionics Cooling

The above product improvement modifications are defined in more detail in the Canadair Report No. RAD-215T-102F, Issue NC-1 "Type Specification for the Canadair Model CL-215-6B11 Variant CL-415 Equipped with Pratt & Whitney Canada PW123AF Engines".

1.2 Certification Basis

The basis of certification for the CL-215-6B11 CL-415 is the same issue of regulations as the CL-215-6B11 CL-215T. Hence the CL-415 will be added to the existing Transport Canada Type Approval A-86 in both the Restricted and Utility categories and will be added to the existing FAA Type Certificate No. A14EA in the Restricted Category.

It is Canadair's objective to demonstrate a higher level of airworthiness where this is possible. The deviations / alleviations defined in this Supplement 2 are those Transport category requirements of FAR / CAM which are considered inappropriate, to the role of the Model CL-215-6B11, considering the effect of product improvement modifications described above on the CL-215T design.
Canadair report RAZ-415-100 "CL-415 General Compliance Program" identifies the requirements which need to be addressed for the product improvements described above and it is intended to comply with affected sections of FAR Part 25 up to and including Amendment 25-61 together with Change 1 of CAM 525 unless a particular section/paragraph is otherwise identified in this Supplement 2 of the RAO-215-100 and also in the GCP RAZ-415-100. Aspects of the design that are not associated with the product improvement modifications continue to demonstrate compliance with requirements stated in the certification standard of the original Model CL-215-1A10 or the CL-215T of the Model CL-215-6B11 as identified in the main part of this report and in Supplement 1 respectively.

This approach has been agreed with Transport Canada and follows the guidelines of FAR 21.101(c).

1.3 Build Standard of Model CL-215-6B11 (CL-415)

The build standard of the production version of the Model CL-215-6B11 (CL-415) is defined by the RAL-415-101 Issue NC document which consists of a list of drawings and modification summaries plus the following modification summaries 415-75116, -75117, 75118, 75119, 75121 and 75123. The RAL-415-101 list is the basic definition of the CL-415 build standard. It contains all the CL-215 and CL-215T drawings updated to the design definition and requirements of the CL-415 as well as the dedicated CL-415 drawings and Mod Summaries, all of which are grouped by discipline. The RAL-415-101 Issue NC together with the six (6) mod. summaries above are therefore a "stand alone" document.

SUBJECT :

SUPPLEMENT 2

2.0 Applicable Requirements and Deviations

Please refer to paragraph 2.0 of Supplement 1 (page 45) for the description of the format.

The General Compliance Program (GCP) RAZ-415-100 Issue NC addresses those requirements that are affected by the product improvement modifications as described above. Requirements not affected by these modifications continue to have compliance demonstrated as stated in the certification standard of the CL-215T of the Model CL-215-6B11 (Supplement 1).

Since the objective of this Supplement 2 is to define requirements of FAR/CAM which are considered inappropriate to the Model CL-215-6B11 (CL-415), it is then appropriate to consider the requirements addressed in Supplement 1 of this report which are applicable to the CL-215T and are also valid and applicable for the CL-415 of the same Model CL-215-6B11. Therefore only the additional or different requirements applicable to the CL-415 for Restricted and Utility Category Certification are listed in this Supplement 2. This list is divided into two parts which address only those requirements that are different from the Supplement 1

2.1 Restricted Category Certification Basis

Requirements addressed under this list are identified under the following criteria:

2.1.1 - Requirements for CL-415 addressed at a different amendment level than the amendment level for the CL-215T

None on the basis that amendment 25-61 is applicable for area of modification

2.1.2 - Requirements addressed only for the CL-415 which were not applicable to the CL-215T

25.119.(a) Thrust requirements
25.235. Taxiing conditions
25.625(d) Fitting factor for seat, berth, safety belt and harness
25.773(b) Precipitation conditions
25.773(c) Internal window / windshield fog
25.803(a) Emergency evacuation
25.807 Passenger emergency exits
25.811 Emergency exit marking
25.901(d) APU installation
25.1142 Axiliary Power Unit Controls

2.1.3 - Deviations / alleviations different from the CL-215T

25.967 Fuel tank installation
25.1013 Installation
25.1142 Auxiliary power Unit Controls

The above additional deviation affecting the oil replenishment system and the cockpit APU controls

SUBJECT :

SUPPLEMENT 2

2.2 Utility Category Certification Basis

Requirements addressed under this list are identified under the following criteria:

- Requirements affected by the product improvements for the CL-415 and

2.2.1 - Were complied with partially during the restricted category certification and are fully complied with for the utility category

25.967 Fuel Tank Installation
25.1013 Installation

Both requirements related to the oil replenishment system are met fully for Utility category

2.2.2 - Were complied with partially during the restricted category certification and are to be partially complied with for the utility category with different deviation.

None

2.2.3 - Result in different limitations for the utility category from those for the restricted category.

None

Note 1 - Requirements affected by product improvements that meet the same basis of certification of the CL-215T are not listed in either list 1 or 2.

2 - For the utility category, requirements which are equally applicable to restricted category with no change in compliance are listed in 2.1 (restricted category certification basis) but not listed in 2.2 (utility category certification basis).

For CL-415 Restricted and Utility Category, requirements which are equally applicable and not affected by the introduction of the product improvement modifications described above to the CL-215T with no change in compliance are listed in 2.1 and 2.2 of the Supplement 1.

The following pages are a complete listing of all applicable requirements affected by the product improvement modifications for the CL-415.
For the nomenclature of the listing please refer to Supplement 1 of this report.

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
0.	SUBPART A GENERAL		
1.$	Applicability	P	The applicability of those requirements addressed in this GCP is limited to the changes introduced to the Retrofit Kit CL-215T to create the Production version CL-415 as layed down in section 2.1 of the introduction.
20.0.	SUBPART B FLIGHT		
21.0.	Proof of Compliance	P	For power control system (Power Elevator and Power Rudder) only. The system comply except that probability is "extremely remote" in certain cases instead of "extremely improbable".
21.a.	Design	C	
21.c.	Controllability, stability	C	
21.d.	Flight test tolerances	C	
21.e.	Automatic system	P	For power control system (Power Elevator and Power Rudder) only. The system comply except that probability is "extremely remote" in certain cases instead of "extremely improbable"
21.f.	Requirements to be met	C	
23.0.$	Load distribution limits	C	
23.a.$	Ranges of wts. & C.G.	C	
23.b.1.$	Selected limits	C	
23.b.2.$	Structural limits	C	
23.b.3.$	Flight limits	C	
25.0.	Weight limits	P	It will be acceptable to establish maximimum weight limits for Water Take-Off operations compatible with an approved procedure for on-loading water while planing "on the step" and to demonstrate compliance with the buoyancy requirements of 525 /25.755 at lesser weight selected as a limitation for the static flotation condition.
25.a.	Maximum weights	P	
25.a.1.	Highest selected weight	P	
25.a.2.	Highest structures & flt. wgt.	P	
25.b.	Minimum weight	P	
25.b.1.	Lowest selected weight	P	
25.b.2.	Lowest struct. & flight weight	P	
25.b.3.	Lowest weight	P	
27.0.$	Center of gravity limits	C	
27.a.$	Extreme limits selected	C	
27.b.$	Extreme limits stucture proven	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
27.c.$	Extremes for flight	C	
33.a.2.	Performance	C	
101.0.	Performance General	P	TRANSPORT CANADA POLICY FOR PERFORMANCE OF TURBINE ENGINED LARGE AIRCRAFT USED FOR SPECIAL PURPOSE (RESTRICTED CATEGORY) AMA 525/10-X
101.a-e.	Performance General	P	
101.f.	Performance General	P	
101.g.	Performance General	P	
101.h.	Performance General	C	
103.0.$	Stalling Speed	C	
103.a.$	Configuration	C	
103.b.$	Vs definition	C	
105.0.$	Takeoff	P	
105.a.$	T.O. performance determination	P	Reference to take-off path described in 25.111, take-off run in FAR 25.113 not applicable.
105.b.$	Pilot skill or alertness	C	
105.c.$	Takeoff conditions	C	
107.b.	V2min	C	
119.0.	Landing Climb:All eng.-operat.	P	AMA 525/10-X
119.a.	Thrust requirements	C	
143.0.	Controllability/Maneuverabilit	C	
143.a.	General	C	
143.b.	Smooth transition	C	
143.c.	Pilot's strength	C	
143.d.	Conventional operat. practice	C	
143.e.	Prolonged force application	C	
145.0.	Longitudinal control	C	
145.a.	Nose downward pitch	C	
145.b.	Change in trim control	C	
145.c.	Retraction of lift devices	C	
147.0.	Directional & lateral control	C	
147.e.	Lat. control-all engines oper.	C	
149.0.	Minimum control speed	C	
149.a.	Engine failure method	C	
149.b.	Definition of Vmc	C	
149.c.	VMC conditions	C	
149.d.	Rudder forces	C	
149.e.	Definition of Vmcg	C	
149.f.	Definition of Vmcl	C	
149.h.	Vmcl, rudder forces	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
171.	Stability - General	C	
173.0.	Static longitudinal stability	C	
173.a.	Push or pull requirements	C	
173.b.	Airspeed requirements	C	
173.c.	Stick force/speed curve	C	
173.d.	Trim speed tolerance	C	
175.0	Demo of static long. stability	C	
175.a.	Climb	C	
175.b.	Cruise	C	
177.0.	Static direct. & lat. stab.	C	
177.a.	Static directional stability	C	
177.b.	Static lateral stability	C	
177.c.	Strait steady sideslips	C	
181.0.	Dynamic stability	C	
181.a.	Longitudinal stability	C	
181.b.	Lateral directional stability	C	
201.0.	Stall demonstration	C	
201.a.	Straight and banked turns	C	
201.b.	Aircraft configuration	C	
201.c.	Procedures for compliance	C	
201.d.	Stall definition	C	
201.d.1.	Stall definition (CAM 525)	C	
203.0.$	Stall characteristics	C	
203.a.$	Roll & yaw correction	C	
203.b.$	Wings level	C	
203.c.$	Turning flights	C	
207.0.	Stall Warning	C	
207.a.	Warning with sufficient margin	C	
207.b.	Warning means	C	
	Warning means (CAM 525)	C	
207.c.	Speed margin	C	
231.b.$	Seaplanes & amphibians	C	
235.	Taxiing conditions	C	
237.0.	Wind velocities	C	
237.a.	90 deg. cross component land	C	
237.b.1.	90 deg. cross component water	C	
237.b.2.	Taxiing on water	C	
239.0.$	Spray char.,stab & cont on H2O	C	
239.a.$	Forbidden characteristics	C	
239.b.$	Method of compliance	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
251.0.	Vibration & buffeting	C	
251.a.	Ability to withstand	C	
251.b.	Freedom from excessive vib.	C	
251.c.	Effects of buffeting	C	
251.e.	Determination- buffet boundary	C	
253.0.	High speed characteristics	P	For Restricted Category compliance demonstration will be limited to the two-axis gust upset test specified in FAA AC 25-7, paragraph 32.c(3)(iii).
253.a.	Speed increase and recovery	P	
253.b.	Maximum speed for stability	P	
255.0.	Out-of-trim characteristics	P	A trim system safety assessment in conjunction with a demonstration of safe flight characteristics will be carried out, following a 3 sec. runaway nose up and nose down at Vmo.
255.a.	Manoeuvering stab & ctrlbilty	P	
255.b.	Effects of change in accel.	P	
255.c.	Flight over the accel. range	P	
255.d.	Provision for marginal results	P	
255.e.	Limit manoeuvering loads	P	
255.f.	Overspeed condition	P	
300.	SUBPART C STRUCTURE		
301.0. *	General: Loads	C	
301.a. *	Strength requirements	C	
301.b. *	Load Distribution	C	
301.c. *	Effect of deflections	C	
303. *	Factor of safety	C	
305.0. *	Strength & deformation	P	Full compliance will be demonstrated for 25.305(a), (b) and (c) to amendment 25-61. Compliance will not be demonstrated with 305.(d) as this was not included in the original certification basis.
305.a. *	Limit load	C	
305.b. *	Ultimate load	C	
305.c. *	Structural flexibility	C	
307.a.	Critical loading conditions	P	
307.b.	Fatigue evaluation	P	
321.0.	Flight loads, general	P	For compliance with applicable flight load requirements, compressibility effects need not be considered for M equal to or less than 0.5.
321.a.	Factors	P	
321.b.	Conditions for flight loads	P	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
331.0. *	Flight maneuver & gust cond.	C	
331.a. *	Procedure	C	
331.b. *	Maneuvering balanced condition	C	
331.c. *	Maneuvering pitching condition	C	
331.d. *	Gust condition	C	
333.0.$	Flight envelope	C	Strength considerations for the engine modification will be examined using flight envelopes compatible with the airspeed and severity of manoeuvers anticipated for the types of special purpose operations, supported by the aircraft's actual wing-lift characteristics.
333.a.$	General	C	
333.b.$	Maneuvering envelope	C	
333.c.$	Gust envelope	C	
335.0.	Design airspeeds	C	
335.a.	Design cruising speed (Vc)	C	
335.b.	Design dive speed (Vd)	C	
335.c.	Design maneuvering speed (Va)	C	
335.d.	Design sp. for max. gust (Vb)	C	
335.e.	Design flap speeds (Vf)	C	
337.0. *	Limit maneuvering load factor	C	Limit manoeuvering load factors may not be less than a)positive factor 1)+3.25g with maximum speed equal to the design flap speed VF for special purpose wing flap position 2)+3.0g with maximum speed equal to Vd flaps retracted b)negative factor 1)-1.0g with maximum speed equal to Vc flaps retracted Limit manoeuver load factor prescribed by 25/525.337 are considered applicable for operations involving carriage of persons, equipement and supplies associated with approved special purpose operations.
337.a. *	Symmetrical maneuvers	C	
337.b. *	Positive limit man. load fact.	C	
337.c. *	Negative maneuvering load fact	C	
337.d. *	Lower factors	C	
341.0.$	Gust loads	C	
341.a.$	Symmetrical vertical gust	C	
341.b.$	Assumptions	C	
341.c.$	Gust load factors	C	
343.0.	Design fuel & oil loads	C	
343.a.	Disposable load combinations	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
343.b.	Structural reserve fuel cond.	C	
345.0.	High lift devices	C	If wing flaps are to be used for flight conditions other than take off, approach and landing, it will be acceptable to select design criteria for these conditions compatible with the manoeuvering speeds and severity of manoeuvers anticipated for the particular special purpose operation and with the aircrafts maximum lift coeffecient with flaps at the appropriate position.
345.a.	Design flap conditions	C	
345.b.	Seperate Condition	C	
345.c.	En route conditions	C	
345.d.	Landing at MTOW	C	
349.0.	Rolling conditions	C	
349.a.	Roll maneuvering	C	
349.b.	Unsymmetrical gust loads	C	
351.0.	Yawing conditions	C	
351.a.	Maneuvering loads	C	
351.b.	Lateral gust loads	C	
361.0.	Engine torque	C	
361.a.	Engine Mount Loads	C	
361.b.	Sudden Engine Stoppage	C	
361.c.	Limit Torque	C	
363.0.	Side Load on Engine Mount.	C	
363.a.	Limit load factor	C	
363.b.	independent of other flt cond.	C	
367.0.$	Unsymm. loads due to eng fail	C	
367.a.$	Engine failure	C	
367.b.$	Pilot corrective action	C	
371.$	Gyroscopic loads	C	
391.0.$	Control surface loads: General	C	
391.a-d.$	Control surface loads	C	
391.e.$	Outboard fins	C	
393.0.$	Loads parallel to hinge line	C	
393.a.$	Inertia loads	C	
393.b.$	Loads Parallel to Hinge Line	C	
395.0.	Control system	C	
395.a.	Control System Loads	C	
395.b.	System limit loads	C	
397.0	Control systems loads	C	
397.a.	General	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
397.b.	Pilot effort effects	C	
397.c.	Limit pilot forces & torques	C	
399.0$	Dual control system	C	
399.a.$	Pilots operating in position	C	
399.b.$	Pilot forces	C	
405.$	Secondary control system	C	
407.0.$	Trim tab effects	C	
407.a.$	Elevator trim tabs	C	
407.b.$	Aileron & rudder trim tabs	C	
409.0.$	Tabs	C	
409.a.$	Trim tabs	C	
409.b.$	Balancing tabs	C	
409.c.$	Servo tabs	C	
427.0.	Unsymmetrical loads	C	
427.a.	Horizontal tail surfaces	C	
427.b.	Application of loads	C	
445.0.$	Outboard fins	C	
445.a.$	Design conditions	C	
445.b.$	Unsymmetrical loads	C	
457.$	Wing flaps	C	
471.	Appendix A	C	
471.0.	Ground loads, general	C	
471.a.	Loads & equilibrium	C	
471.b.	Critical center of gravity	C	
471.c.	Dimension data	C	
473.0.	Ground load condts & assumpt.	C	
473.a.	Landing conditions	C	
473.b.	Descent velocities	C	
473.c.	Limit inertia load factors	C	
479.0.	Level landing conditions	C	
479.a.	Ground contact speed	C	
479.c.	Application of loads	C	
479.e.	Level landing attitude	C	
481.0.$	Tail-down landing conditions	C	
481.a.$	Ground contact speeds	C	
481.c.$	Attitude, nosewheel aircraft	C	
483.0.$	One wheel landing conditions	C	
483.a.$	Ground reactions	C	
483.b.$	Unbalanced external load	C	
485.0.$	Side load conditions	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
485.a.$	Assumed attitude	C	
485.b.$	Side load	C	
489. *	Ground handling conditions	C	
491.$	Take-off run	C	
493.0. *	Braked roll conditions	C	
493.b. *	Design criteria, nose wheel	C	
493.c. *	Reduced drag load	C	
495.$	Turning	C	
499.0. *	Nose wheel yaw	C	
499.a. *	Load factors	C	
499.b. *	Design criteria	C	
499.c. *	Nose gear side load	C	
499.d. *	Drag reaction	C	
503.0.$	Pivoting	C	
503.a.$	Design criteria	C	
503.b.$	Airplane in equilibrium	C	
507.0.$	Reversed braking	C	
507.a.$	Design criteria	C	
507.b.$	Pitching moment	C	
509.0. *	Towing loads	C	
509.a. *	Load conditions	C	
509.b. *	Towing points	C	
509.c. *	Reactions	C	
509.d. *	Loads	C	
511.0.$	Unsymm. loads, muli. whl. unit	C	
511.a.$	General	C	
511.b.$	Load distrib., tires inflated	C	
511.c.$	Deflated tires	C	
511.d.$	Landing conditions	C	
511.e.$	Taxi & ground handling	C	
511.f.$	Towing condition	C	
521.0.$	Water loads	C	
521.a.$	Take off & landing water desig	C	
521.b.$	Analysis of water loads	C	
521.c.$	Amphibians requirements	C	
523.0.	Design weights & CG positions	C	
523.a.	Design weight	C	
523.b.	Center of gravity positions	C	
525.0.$	Application of loads	C	
525.a.$	Load factors	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
525.b.$	Load Application	C	
525.d.$	Aerodynamic lift	C	
527.0.	Hull & main float load factors	C	
527.a-b.	Water reaction load factors	C	
529.0.$	Hull & main float landing cond	C	
529.a.1.$	Symm. step landings	C	
529.a.2.$	Symm. bow landings	C	
529.a.3.$	Symm. stern landings	C	
529.b.$	Unsymm. landing for hull	C	
531.0.	Hull & main float takeoff cond	C	
531.a.	Wing lift	C	
531.b.	Inertia load	C	
533.0.	Hull & main float bottom press	C	
533.a.	General	C	
533.b.	Local pressures	C	
533.c.	Distributed pressures	C	
535.0.	Auxiliary float loads	C	
535.a.	General	C	
535.b.	Step loading	C	
535.c.	Bow loading	C	
535.d.	Unsymmetrical step loading	C	
535.e.	Unsymmetrical bow loading	C	
535.f.	Immersed float condition	C	
535.g.	Float bottom pressures	C	
561.0.	Emergency landing, general	C	
561.a.	Emergency Landing	C	
561.b.	Design criteria & g loads	C	
561.c.	Restrain items of mass	C	
571.0.	Damage tolerance & fat. eval.	P	A damage tolerance assessment will be provided for the engine mounts and nacelle (including testing), horizontal tail leading edge slat and finlets based on a appropriate load spectrum.
571.a.	General	P	
571.b.	Damage tolerance evaluation	P	
571.c.	Fatigue evaluation	P	
571.e.3.	Dam. tol. (discrete source)	P	It will be demonstrated that continued safe flight and landing is possible after structural failure resulting from engine debris.
571.e.4.	Dam. tol. (discrete source)	P	

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RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
581.0.	Lightning protection	C	
581.a.	Protection against catastrophe	C	
581.b.	Metallic components	C	
581.c.	Non-metallic components	C	
600.	SUBPART D DESIGN, CONSTRUCTION		
601.$	Design & construction general	C	
603.0.	Materials	C	
603.a.	Materials suitability & durab.	C	
603.b.	Approval	C	
603.c.	Environmental effects	C	
605.0.	Fabrication methods	C	
605.a.	Consistently sound	C	
605.b.	Substantiated	C	
607.0.	Fasteners	C	
607.a.	Two seperate lock devices	C	
607.b.	Environmental conditions	C	
607.c.	Bolt in rotation	C	
609.0.$	Protection of structure	C	
609.a.$	Environment	C	
609.b.$	Ventilation & drainage	C	
611.	Accessibility provisions	C	
613.0.	Material properties & values	C	
613.a.	Strength	C	
613.b.	Design values	C	
613.c.	Temperature effects	C	
613.d.	Minimize fatigue failure	C	
619.a-c.	Special factors	C	
621.0.$	Casting factors	C	
621.a.$	General	C	
621.b.$	Bearing stresses & surfaces	C	
621.c.$	Critical castings	C	
621.d.$	Non-critical castings	C	
623.0.$	Bearing factors	C	
623.a.$	Relative Motion	C	
623.b.$	Larger factors	C	
625.0.	Fitting factors	C	
625.a.	Applicability	C	
625.b.	Stiffness & Rigidity	C	
625.c.	Integral fitting	C	
625.d.	Seat fitting factor	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
629.0.	Flutter, deform & F.S criteria	P	The control surface and tab mass balance requirements are set to clear single flight control system failures (hydraulic / mechanical) to the full Vd/Md flight envelope. The general airframe flutter is thus shown to comply with FAR 25.629, prior to ammendment 46. Propeller whirl flutter employs the later FAR 25.629 ammendment 61 (engine mount failures to Vd) regulations.
629.a.	General	P	
629.b.	Flutter & divergence prevent.	P	
629.c.	Loss of cont. due to str. def.	P	
629.d.0	Fail-safe criteria	P	
629.d.1.	Freedom from flutter or diver.	P	
629.d.2.	Failure simul.n during flight	P	
629.d.3.	Negligible prob of occurence	P	
629.d.4.	Failure cases	P	
651.0.$	Control surfaces, strength	C	
651.a.$	Limit load tests	C	
651.b.$	Special factors	C	
657.0.	Hinges	C	
657.a.	Bearing strength	C	
657.b.	Strength & rigidity	C	
671.0.	Control systems, general	P	
671.a.	Smooth operation	C	
671.a. *	Smooth operation	C	
671.b.	Minimize incorrect assembly	C	
671.b. *	Minimize incorrect assembly	C	
671.c.	Failure cases & jamming	P	Compliance will be demonstrated except that probability is "extremely remote" in certain cases instead of "extremely improbable".
671.c. *	Failure cases	C	
671.d.	Control all engine failed	C	
672.0.	Power-operated systems	C	
672.a.	Failure warning	C	
672.b.	Counteraction of failures	C	
672.c.	Stability after single failure	C	
675.0.	Stops	C	
675.a.	Limit control range	C	
675.a. *	Limit control range	C	
675.b.	Location	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
675.b. *	Location	C	
675.c.	Strength	C	
675.c. *	Strength	C	
677.0.	Trim systems	C	
677.a.	Operating criteria	C	
677.a. *	Operating criteria	C	
677.b.	Trim indication	C	
677.b. *	Trim indication	C	
677.c.	Prevent creep & reversibility	C	
677.c. *	Prevent creep & reversibility	C	
677.d.	Irreversible tab	C	
679.0.$	Control system gust locks	C	
679.a.$	Device design	C	
679.b.$	Prevent engagement in flight	C	
681.0.$	Limit load static tests	C	
681.a.$	Test definition	C	
681.b.$	Include special factors	C	
683.	Operation tests	C	
683. *	Operation tests	C	
685.0.	Control system details	C	
685.a.	Design criteria	C	
685.a. *	Design criteria	C	
685.b.	Prevent f.o. from cockpit	C	
685.b. *	Prevent f.o. from cockpit	C	
685.c.	Prevent tube or cables slap	C	
685.c. *	Prevent tube or cables slap	C	
685.d.	Requirements for cables	C	
685.d. *	Requirements for cables	C	
689.0.$	Cable systems	C	
689.a.$	Cable approval & design	C	
689.b.$	Pulley design	C	
689.c.$	Fairleads	C	
689.d.$	Clevis pins	C	
689.e.$	Turnbuckles	C	
689.f.$	Means for inspection	C	
693.$	Joints	C	
695.0. *	Pwr-boost & pwr op. cont. sys.	C	
695.a. *	Alternate system	C	
695.b. *	Duplicate system	C	
695.c. *	Mechanical failure (jamming)	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
695.d. *	Engine failure operation	C	
697.0	Wing flap control	C	
697.b.	Inadvertent oper. - Improbable	C	
699.0. *	Wing Flap Position Indicator	C	
699.a. *	Position indication	C	
699.b. *	Range of extension	C	
701.c. *	Flap interconnect unsym.loads	C	
721.0. *	Landing Gear	C	
721.a. *	Requirements to meet	C	
721.b. *	Specified reqmts for test	C	
721.c. *	Landing gear must withstand	C	
729.0.	Retracting mechanism	C	
729.e.	Position indicator & warning	C	
735.0. *	Brakes	C	
735.c. *	Control force	C	
755.	Hulls	C	
771.0.	Pilot compartment	C	
771.a.	Duties without fatigue	C	
771.b.	Location of controls	C	
771.c.	Second pilot	C	
771.d.	Compartment leakage	C	
771.e.	Vibration & noise	C	
773.0.	Pilot compartment view	C	
773.a.2.	Free of glare & reflection	C	
773.b.	Precipitation conditions	C	
773.c.	Internal window/windshield fog	C	
777.0.	Cockpit controls	C	
777.a.	Location	C	
777.b.	Control movement	C	
777.c.	Location for all pilots	C	
777.d.	Powerplant controls	C	
777.e.	Lift device controls location	C	
777.g.	Control knobs	C	
779.0.$	Motion&effect of Cockpit Cntr	C	
779.a.$	Aerodynamic controls	C	
779.b.$	Powerplant and Aux controls	C	
781.$	Cockpit Control Knob shape	C	
803.0.	Emergency Provision	C	
803.a.	Emergency Evacuation	C	
807.0.	Passenger Emergency Exits	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
807.a.	Type and location	C	
807.b.	Accessibility	C	
807.c.	Side of fuselage	C	
807.d.	Ditching emergency exits	C	
811.0.	Emergency Exit Marking	C	
811.a.	Conspicuous marking	C	
811.b.	Recognition	C	
811.d.2.	Lighting of placards	C	
811.g.	Marking of emerg. exits	C	
813.	Emergency Exit Access	C	
831.0.	Ventilation	P	25/525.831(e) independent control of air quantity and temperature between crew and passenger compartment is inappropriate.
831.a.	Fresh Air	C	
831.b.1.	Harmful gas, CO	C	
831.b.2.	Harmful gas, CO2	C	
831.c.	After probable failures	C	
831.e.	Temp. & quantity of air	P	
833.0.$	Heating systems	C	
833.a.$	Approval of heaters	C	
853.0.	Compartment interiors	C	
853.a.	Materials	C	
853.b.	Walls & ceiling linings	C	
859.0.	Combustion heater fire protec.	C	
859.e.	Heater safety controls	C	
863.0.	Flammable fluid fire prot.n	C	
863.a.	Minimize fluid ignition	C	
863.a. *	Minimize fluid ignition	C	
863.b.	Compliance considerations	C	
863.b. *	Control fire	C	
863.c.	Action by crew	C	
863.d.	Define leakage areas	C	
865.	Fire Prot. of flt. controls...	C	
900.	SUBPART E POWERPLANT		
901.0.	Installation	C	
901.b.	Installation compliance	C	
901.d.	APU installation	C	
951.0.	Fuel system, general	C	
951.a.	Ensure fuel supply	C	
951.b.	Power/flameout prot.n	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
952.a.	Analysis & tests	C	
954.0.	Fuel system lightning protectn	C	
954.a.	Direct strike areas	C	
954.b.	Swept lightning strokes	C	
954.c.	Carona & streamering at vents	C	
957.	Flow btwn interconnected tnks	C	
959.	Unusable fuel supply	C	
967.0.$	Fuel tank installation	C	
967.a.$	Support weight of fuel tanks	C	
967.b.$	Ventilation of tanks	C	
967.c.$	Location of tanks	C	
967.d.$	Nacelle as tank wall	C	
967.e.$	Separation from personnel	C	
969.	Fuel tank expansion space	C	
971.0.$	Fuel tank sump	C	
971.a.$	Effective capacity of sump	C	
971.b.$	Tank drainage to sump	C	
971.c.$	Drain characteristics	C	
973.0.	Fuel tank filler connection	C	
973.a.	Filler marking	C	
975.0.	Fuel tank vents & carb. vapor	C	
975.a.$	Fuel tank vents	C	
977.0.	Fuel tank outlet	C	
977.a.	Fuel strainer	C	
977.c.	Clear area of outlet strainer	C	
977.d.	Diameter of strainer	C	
977.e.	Accessibility for inspection	C	
979.0.	Pressure fueling system	C	
979.c.	Prevention of damage to system	C	
979.d.	Pressure fueling sys. loads	C	
979.e.	Defueling load conditions	C	
981.0.	Fuel tank temperature	C	
981.a.	Temperature limit	C	
991.0.$	Fuel pumps	C	
991.a.$	Installations	C	
991.b.$	Emergency pumps	C	
993.0.	Fuel system lines & fittings	C	
993.a.	Installations	C	
993.b.	Connection flexibility	C	
993.c.	Hoses with axial loads	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
993.d.	Hose approval	C	
993.e.	High temprature	C	
993.f.	Deformation & stretch/no leak	C	
994.	Fuel system components	C	
1011.0.$	Oil system, general	C	
1011.b.$	Usable capacity	C	
1013.0.	Oil tanks	C	
1013.a.	Installation	C	
1013.b.	Expansion space	C	
1013.c.	Filler connections	C	
1013.d.	Vent	C	
1013.e.	Outlet	C	
1015.0.	Oil tank tests	C	
1015.a.	Loads	C	
1015.b.	Test provisions	C	
1017.0.$	Oil lines & fittings	C	
1017.a.$	Requirements	C	
1017.b.$	Breather lines	C	
1021.0.	Oil systems drains	C	
1021.a.	Accessibility	C	
1021.b.	Locking means	C	
1025.0.$	Oil valves	C	
1025.a.$	Requirements	C	
1025.b.$	Shut-off means	C	
1141.0.	Powerplant controls - general	C	
1141.a.	Location	C	
1141.d	Position retention	C	
1142.0	Axiliary Power Unit Controls	P	It is acceptable to provide on the flight deck the means for emergency shutdown (only) for the installed ground APU.
1143.0	Engine controls	P	
1143.b	Control operation	C	
1143.c.	Positive response	C	
1143.e.	Shut-off feature	C	
1145.0.	Ignition switches	C	
1145.b.	Switch grouping	C	
1145.c.	Inadvertent operation	C	
1163.0.	Powerplant accessories	C	
1163.a.	Engine mounted	C	
1165.d.	Magneto ground wiring	C	
1165.e.	No routing through fire zone	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1183.0.	Flammable fluid-carrying comp.	C	
1183.a. *	Lines fittings & components	C	
1189.0.	Shut-off means	C	
1189.a.	Means & exceptions	C	
1189.a. *	Means & exceptions	C	
1189.a.1.*	Lines, fittings & components	C	
1189.c.	Isolation of SOV	C	
1189.c. *	Isolation of SOV	C	
1189.d.	Location or fireproof	C	
1189.d. *	Location or fireproof	C	
1189.e.	Flamm fluid draining	C	
1189.e. *	Flamm fluid draining	C	
1189.f.	Prevent inadvertent ops	C	
1189.f. *	Prevent inadvertent ops	C	
1189.g.	Tank to engine SOV	C	
1189.h.	SOV pressure relief	C	
1203.0.	Fire detector system		
1203.a.	Location	C	
1203.b.	Failure warning	C	
1203.c.	Contamination	C	
1203.d.	Flight check	C	
1203.e.	Wiring	C	
1203.f.	Routing in other Fire zones	C	
1203.g.	Alarm activaiton time	C	
1301-1$	Operations after cold soak-CAM	C	
1301.0.$	Function & installation	C	
1301.a.$	Design	C	
1301.b.$	Labelled	C	
1301.c.$	Installed to limitations	C	
1301.d.$	Function properly	C	
1303.0.	Flight & navigation inst.mts	C	
1303.a.	Instrument visiblity	C	
1303.a.1.	Free-air temperature	C	
1303.a.2.	Clock	C	
1303.a.3.	Nonstabilized magnetic compass	C	
1303.a.5.	Bank & pitch indicator	C	
1303.b.	Flt.&nav. instr. at each sta.	C	
1303.b.1.	Airspeed indicator	C	
1303.b.2.	Altimeter	C	
1303.b.3.	Rate-of-climb indicator	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1303.b.5.	Bank and pitch indicator	C	
1303.c.	For turbine aircraft	C	
1305.0.	Powerplant instruments	C	
1305.a.	All aircraft	C	
1305.c.	Turbine aircraft	C	
1305.c.4.	Means to indicate opr. starter	C	
1305.e.	Turbo-prop aircraft	C	
1307.0.	Miscellaneous equipment	C	
1307.b.	Electrical generation	C	
1307.c.	Electrical protective devices	C	
1307.d.	Two-way radio communications	C	
1307.e.	Two systems for radio navigat.	C	
1307.f.	Wind shield wiper	C	
1307.g.	Ignition switch	C	
1309.0.	Equipment, systems & install.	P	Full compliance will be demonstrated for powerplant installation and electrical generation system. For 25.1309(b), partial compliance for the powered elevator and rudder will be demonstrated. Other areas not affected by engine replacement will comply with the pre-amendment 25-23 standard.
1309.a.	Perform intended function	C	
1309.a. *	Perform intended function	C	
1309.b.	Improbable/Extremely improb.	P	Partial compliance for power control systems only The systems comply exept that probability is "extremely remote" in certain cases instead of "extremely improbable".
1309.b. *	Pevent hazards	C	
1309.c.	Warning information	C	
1309.c. *	Power supply essential load	C	
1309.d.	Compliance with (b)	C	
1309.d. *	Compliance with (c)(2 & 3)	C	
1309.e.	Power supply for essential lds	C	
1309.e. *	Critical environmental cond.	C	
1309.f.	Compliance with (e)(2) & (3)	C	
1309.g.	Compliance with (a) & (b)	C	
1321.0.	Instruments-arrangmt & visibty	C	
1321.a.	Visibility	C	
1321.b.	Location of flight instruments	C	
1321.b.1.	Instrument position	C	
1321.b.2.	Instrument position	C	
1321.b.3.	Instrument position	C	

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FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1321.c.	Location, powerplant instments	C	
1321.d.	Panel vibration	C	
1321.e.	Visible in all conditions	C	
1322.0.	Warning caution & advis. light	C	
1322.a.	Warning lights	C	
1322.b.	Caution lights	C	
1322.c.	Safe lights	C	
1322.d.	Other lights	C	
1323.0.	Airspeed indicating system	C	
1323.a.	Approved with minimum error	C	
1323.b.	Calibration error	C	
1323.c.	Airspeed error	C	
1325.0.	Static pressure systems	C	
1325.a.	Instrument venting	C	
1325.c.	Design and installation	C	
1325.d.	Pressure altimeter	C	
1325.e.	Pressure altitude error	C	
1326.0.	Pitot heat indication systems	C	
1326.a.	Indication provided (amber)	C	
1326.b.	Crew alerting conditions	C	
1327.0.	Magnetic Direction Indicator	C	
1327.a.	Affected by vibr. & mag. field	C	
1327.b.	No deviation greater than 10	C	
1331.0.	Instruments using power supply	C	
1331.a.	Instrument power supply	C	
1331.a.1.	Visual means power indication	C	
1331.a.2.	Two independent power scources	C	
1331.a.3.	Means to identify loss of data	C	
1333.0.	Instrument systems	C	
1333.a.	Means of connection	C	
1333.b.	Installation	C	
1333.c.	Additional intruments	C	
1337.0.	Powerplant instruments	C	
1337.b.	Fuel quantity indicator	C	
1337.c.	Fuel flow meter system	C	
1337.d.	Oil quantity indicator	C	
1337.e.	Turbopropeller blade pos. ind.	C	
1351.0.	Electcl sys & equipt, general	C	
1351.a.	Electrical system capacity	C	
1351.b.1.	Generating system, function	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1351.b.2.	Generating system, failures	C	
1351.b.3.	Generating system, limits	C	
1351.b.4.	Generating system, transients	C	
1351.b.5.	Generating system, disconnect	C	
1351.b.6.	Generating system, indication	C	
1351.c.	External power	C	
1351.d.	Flight without norm elec power	C	
1353.0.	Elec equip & installations	C	
1353.a.	Controls & wiring	C	
1353.b.	Cable grouping	C	
1353.c.1.	Battery, design & installation	C	
1353.c.2.	Battery, design & installation	C	
1355.0.	Distribution system	C	
1355.a.	Configuration	C	
1355.c.	Independent sources	C	
1357.0.$	Circuit protective devices	C	
1357.a.$	Automatic devices	C	
1357.b.$	Protective & control devices	C	
1357.c.$	Resettable device	C	
1357.d.$	Circuit breaker location	C	
1357.e.$	Circuit protection	C	
1359.0.	Electrical system fire & smoke	C	
1359.a.	Requmts for fire & smoke	C	
1359.b.	Fire resistant components	C	
1381.0.$	Instrument lights	C	
1381.a.$	Installation & readability	C	
1381.b.$	Control of intensity	C	
1383.0.	Landing Lights	C	
1383.a.	Installation	C	
1383.b.	Switches	C	
1383.c.	Means to indicate to the pilot	C	
1397.0.	Color Specification		
1397.a.	Aviation red	C	
1397.b.	Aviation green	C	
1397.c.	Aviation white	C	
1431.0.$	Electronic equipment	C	
1431.a.$	Installation considerations	C	
1431.b.$	Power supply	C	
1431.c.$	Effect on other units	C	
1435.0.	Hydraulic systems	C	

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FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1435.a.1.	Design pressures	C	
1435.a.1.*	Design pressures	C	
1435.a.2.	Pressure indication	C	
1435.a.2.*	Pressure indication	C	
1435.a.3.*	Pressure indication	C	
1435.a.4.	System pressure limits	C	
1435.a.4.*	System pressure limits	C	
1435.a.5.	Element installation & fluids	C	
1435.a.5.*	Element installation & fluids	C	
1435.a.6.	Flexibility for connections	C	
1435.a.6.*	Flexibility for connections	C	
1435.a.7.	Transiant pressure	C	
1435.b. *	Tests, installation	C	
1435.b.1	Tests	C	
1435.b.2	Compliance with 1309	P	
1435.c.	Fire protection	C	
1435.c. *	Fire protection	C	
1447.0.	Equipment standards for oxyg.	C	
1447.a.	Individual dispensing units	C	
1447.c.2.	Crew oxygen equipment	C	
1455.	Draining of fluids due freeze	C	
1500.	SUBPART G OPERATNG LIMS & INFO		
1501.0.	General	C	Limitations, procedures and information appropriate to safe conduct of particular special purpose operations for which approval is desired must be established and presented in the Airplane Flight Manual. Reasonably expected variations from the established procedures must be investigated and, if such variations could result in a hazardous flight condition in service, appropriate warning information must be presented in the Airplane Flight Manual.
1501.a.	Data to be established	C	
1501.b.	Data in markings & placards	C	
1503.$	Airspeed limitations	C	
1505.0.	Maximum operating limit speed	C	
1507.$	Maneuvering speed	C	
1511.$	Flap extended speed	C	
1513.$	Minimum control speed	C	
1519.$	Weight distribution	C	

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CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1529.	Maintenance manual	P	The concept of Continued Airworthiness of the CL-215-6B11 will be identical to that for the CL-215-1A10. For the Maintenance Manual, compliance will be demonstated with the original bassis of certification, which included a Maintenance Manual but did not include FAR 25.1529. Regarding FAR 25.1529(a)(3), the inspections for engine mounts and nacelle, resulting from the damage tolerance assessement of FAR 25.571, will be included in the Maintenance Specification.
1533.0.	Additionl operatng limitations	C	Refer to TC policy for performance AMA 525/10-X.
1533.a.1.	Max. take-off weights	C	
1533.a.2.	Max. landing weights	C	
1533.a.3.	Min. take-off distances	C	Compliance with 25.113(a)(2) and 25.103 only.
1533.b.	Extremes for variable factors	C	
1541.0.$	Markings & placards general	C	For compliance with this requirement the aircraft must contain markings and placards corresponding to either the Restricted or Utility category, as selected by the applicant. Additionaly, a placard installed in clear view of each pilot must identify the category for which the aircraft is marked.
1541.a.$	Specific marks, placards & inf	C	
1541.b.1.$	Conspicuous location	C	
1541.b.2.$	Not easily erased	C	
1543.0.$	Instrument marking, general	C	
1543.a.$	Means to maintain correct alig	C	
1543.b.	Lines clearly visible to pilot	C	
1545.$	Airspeed limitation info.	C	
1547.$	Magnetic direction indication	C	
1547.a-d.$	Magnetic direction indication	C	
1549.0.	Powerplant & APU instruments	C	
1549.a.	Max & min limits	C	
1549.b.	Normal operating range	C	
1549.c.	T.O. and precautionary range	C	
1549.d.	Vibration stress marks	C	
1551.$	Oil quantity indicator	C	
1553.$	Fuel quantity indicator	C	
1555.0.$	Control markings	C	
1555.a.$	Function & method of operation	C	
1555.b$	Aerodynamic controls	C	
1555.c.3.$	Valve control (powerplant)	C	

MODEL CL-215-6B11 CL-415
RESTRICTED CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1555.d.1.$	Emerg. control color red	C	
1557.0.	Miscellaneous marks & placards	C	
1557.b.1.	Fuel filler openings	C	
1557.b.2.	Oil filler openings	C	
1557.b.3.	Additional reqmt for CAM	C	
1563.$	Airspeed placard	C	
1581.0.	AFM, general	C	Limitations, performance information and operating procedures required by 25/525.1581 through 1587, as modified by the applicable special coditions contained in RAO-215-100, will be presented in the Airplane Flight Manual. Those data considered appropriate for the Restricted Category aircraft operation will be presented in an Airplane Flight Manual Supplement.
1581.a.	Information required	C	
1581.b.	Approved parts of manual	C	
1581.d.	List of contents	C	
1581.e.	Units-CAM only	C	
1581.f.	Operating rules-CAM only	C	
1583.0.	Operating limitations	C	Same as FAR/CAM 25/525.1581.
1583.a.	Airspeed limitation	C	
1583.c.	Weight & loading distribution	C	
1583.h.	Additional ops. limitations	C	
1585 0.	Operating procedures	C	Same as FAR/CAM 25/525.1581.
1585 a.1-4	Procedures, engine	C	
1585 a.6-8	Procedures, engine/turbulence	C	
1585.a.10.	Disconnecting battery	C	
1585.b.	Fuel system information	C	
1585.c.	Buffet onset envelope	C	
1585.d.	Zero fuel statement	C	
1585.e.	Fuel quantity information	C	
1587.0.	Performance information	C	Same as FAR/CAM 25/525.1581.
1587.a.	Conversion to free air temp.	C	
1587.b.	Actual performance	C	
SCA-93-4	TC SPECIAL CONDITION-HIRF	C	
SCA-93-5	TC SPECIAL CONDITION-LIGHTNING	C	

MODEL CL-215-6B11 CL-415
UTILITY CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
FAR3601.	Noise standards: aircraft type	C	
FAR3602.	Airworthiness certification	C	
FAR3603.	Means of compliance	C	
ICAO	ANNEX 16	C	

MODEL CL-215-6B11 CL-415
UTILITY CATEGORY CERTIFICATION BASIS

CL-215-6B11 APPLICATION OF FAR /CAM 25/525

FAR 25 CAM 525	HEADING	APPLICABILITY	DEVIATION
1.$	Applicability	C	The applicability of those requirements addressed in this GCP is limited to the changes introduced to the Retrofit Kit CL-215T to create the Production version CL-415 as layed down in section 2.1 of the introduction.
25.0.	Weight limits	C	It will be acceptable to establish maximimum weight limits for Water Take-Off operations compatible with an approved procedure for on-loading water while planing "on the step" and to demonstrate compliance with the buoyancy requirements of 525 /25.755 at lesser weight selected as a limitation for the static flotation condition.
25.a.	Maximum weights	C	
25.a.1.	Highest selected weight	C	
25.a.2.	Highest structures & flt. wgt.	C	
25.b.	Minimum weight	C	
25.b.1.	Lowest selected weight	C	
25.b.2.	Lowest struct. & flight weight	C	
25.b.3.	Lowest weight	C	
101.a-e.	Performance General	C	
101.f.	Performance General	C	
101.g.	Performance General	C	

Acronyms and Abbreviations

TCDS	Type Certificate Data Sheet
SC	Special Condition
DEV	Deviation
ESF	Equivalent Safety Finding

– END –