

I - Model C-212-CB (cont'd)

Blade angle measured at 30-in. radius station:

Feathered	89.0° ± 1.0°
Flight Idle	13.5° ± 0.2°
Start Locks	2.5° + 0° - 0.5°
Full Reverse	-6.5° ± 0.5°

			<u>Speed Knots IAS</u>
Airspeed Limits	V _{MO} (Max. Operating)	(S.L. -25000 ft)	200
	V _A (Maneuvering)		146
	V _{FE} (Flaps Extended)	Takeoff 25%	125
		Approach 50%	120
		Landing 100%	100
	V _{MC} (Min. control speed)		78

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
14332	17.4	30.0
13781	16.9	30.0
12678	16.0	30.0

Straight line variation between points given.

Datum

A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.

M.A.C.

Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in. aft of datum.

Leveling Means

Plumb-bob provision on aft face of aft cockpit compartment bulkhead.

Maximum Weights

Takeoff:	14332 lb.
Landing:	13781 lb.
MZFW:	13230 lb.

Minimum Crew

The minimum flight crew is two pilots.

Maximum Passengers

19 - limited by Emergency Exit Requirements of FAR 25.807 (c)

Maximum Baggage

Aft baggage comp: 662 lb. total - maximum floor loading: 120 lb/sq. ft
470 lb/linear ft.

Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the INTA-approved Airplane Flight Manual.

Fuel Capacity

Total Capacity:	548.00 U.S. gal. in two wing tanks
Usable fuel:	528.00 U.S. gal.
Unusable fuel:	20.00 U.S. gal.

Oil Capacity

(See NOTE I (b) and I (c) for data on system fuel and oil)	
Usable oil:	5.25 U.S. quarts in each engine tank
Unusable oil:	(NONE)

Maximum Approved Operating
Altitude

25,000 ft.

I - Model C-212-CB (cont'd)

Control Surface Movement	Elevator	30°	Up	20°	Down
	Elevator trim tab	15.5°	Up	21°	Down
	Rudder	25°	Right	25°	Left
	Rudder trim tab	17.5°	Right	19°	Left
	Aileron	20°	Up	20°	Down
	Aileron trim tab	15°	Up	15°	Down
	Flaps, Inner and Outer	10°	Down - takeoff		
		20°	Down - approach		
40°		Down - landing			

All measurements taken at trailing edge from neutral position. For details of tolerance on control surface movement refer to document D.T. 77.2101.

II. Model C-212-CC (Transport Category Airplane) approved May 16, 1980

The C-212-CC Model is similar to the C-212-CB Model except for powerplant installation, gross weight and seating capacity.

Engines 2 - Garrett Turbine Engine Co. Model TPE331-10-501C or TPE331-10R-501C Turboprop engines, or 2 - Model TPE331-10-511c or TPE311-10R-511C Turboprop engine.

Prop. Shaft/Eng. Rotor Ratio: 1/26.2287

Fuel See AFM for approved fuels, alternate fuels and approved fuel additives.

Oil Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHp	ESHp	% RPM	EGT (°C)
Takeoff (initial) (5 minutes)	900	944	100	650
Takeoff (APR on) (5 minutes)	900	944	100	650
Max. Continuous	900	944	100	650

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec.

100% RPM is defined as 41,730 rpm engine rotor speed, 1591 rpm propeller shaft speed.

Transient temperature (EGT) limit (1 sec.): 770°C

See INTA-approved Airplane Flight Manual, Document D.T. 78-2501, for additional information.

Propeller and Propeller Limits

2 Hartzell Model HC-B4MN-5AL, constant speed hydraulic full feathering, reversible propellers.

Blades: 4, Model LM 10585 B + 4

Diameter: 110 in.

For %RPM as windmilling see INTA-approved Airplane Flight Manual, Document D.T. 78-2501.

Blade angle measured at 42- in. radius station:

Feathered 83.0° ± 1.0°

Flight Idle 7.0° ± 0.3°

Start Locks -1.5° ± 0.2°

Full Reverse -10° ± 0.5°

II. Model C-212-CC (cont'd)

			<u>Speed Knots IAS</u>	
Airspeed Limits	V _{MO} (Max. Operating)	(S.L. -25,000 ft)	200	
	V _A (Maneuvering)		146	
	V _{FE} (Flaps extended)	Takeoff 25%		135
		Approach 37.5%		130
		Landing 100%		115
V _{MC} (Min. Control)		85		

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.00	30.00
16,424	15.90	30.00
11,051	15.00	30.00
9,481	15.00	30.00

Straight line variation between points given.

Datum A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.

M.A.C. Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in. aft of datum.

Leveling Means Plumb-bob provisions on aft fact of aft cockpit compartment bulkhead.

Maximum Weights

Ramp:	17,086 lb.
Takeoff:	16,976 lb.
Landing:	16,424 lb.
MZFW:	15,653 lb.

Minimum Crew The minimum flight crew is two pilots

Maximum Baggage Aft baggage comp.: 882 lb. Total - maximum floor loading: 120 lb/sq. ft.
470 lb/linear ft.

Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the INTA-approved Airplane Flight Manual.

Fuel Capacity

Total capacity:	548.00 U.S. gal. in two wing tanks
Usable fuel:	528.00 U.S. gal.
Unusable fuel:	20.00 U.S. gal.

(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).

Oil Capacity

Usable oil:	5.25 U.S. quarts in each engine tank
Unusable oil:	(NONE)

Maximum Approved Operating Altitude 25,000 ft.

II. Model C-212-CC (cont'd)

Control Surface Movements	Elevator	30°	Up	20°	Down
	Elevator Trim Tab	15.5°	Up	21°	Down
	Rudder	27.5°	Right	27.5°	Left
	Rudder Trim Tab	12.5°	Right	19°	Left
	Aileron	20°	Up	15°	Down
	Aileron Trim Tab	15°	Up	15°	Down
	Flaps, Inner and Outer	10°	Down - Takeoff		
		15°	Down - Approach		
	40°	Down - Landing			

All measurements taken at trailing edge from neutral position. For details of tolerances on control surface movement refer to document D.T. 77-2101.

Maximum Passengers 28 - limited by space available for accommodation.

III. Model C-212-CD (Transport Category Airplane) approved September 6, 1985

The C-212-CD model is similar to the C-212-CC Model except for powerplant installation.

Engines 2 - Garrett Turbine Engine Co. Model TPE331-10R-502C or TPE331-10R-512C
(See NOTES 5 & 6) Turboprop engines.

Prop. Shaft/Eng. Rotor Ratio: 1/26.2287

Fuel See AFM for approved fuels, alternate fuels and approved fuel additives.

Oil Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHP	ESHP	% RPM	EGT (°C)
Takeoff (initial) (5 minutes)	900	944	100	650
Takeoff (APR on) (5 minutes)	900	944	100	650
Max. Continuous	900	944	100	650

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec.
100% RPM is defined as 41.730 rpm engine rotor speed, 1591 rpm propeller shaft speed.
Transient temperature (EGT) limit (1 sec.): 770°C.

See INTA-approved Airplane Flight Manual, Document D.T. 83-2501, for additional information.

Propeller and Propeller Limits 2 Dowty Rotol Model (c) R.334/4-82-F/13 hydraulic full feathering, constant speed reversible propellers.

Blades: 4, serial number 660709314
Diameter: 110 in.

For % RPM at windmilling see INTA-approved Airplane Flight Manual, Document D.T. 83-2501.

Blade angle measured at 35.333 in radius station:

Feathered	82°30' ± 20'
Flight Idle	9° ± 20'
Start Locks	-1°45' ± 0°30'
Full Reverse	-13° ± 1°

III. Model C-212-CD (cont'd)

		<u>Speed Knots IAS</u>	
Airspeed Limits	V _{MO} (Max. Operating) (S.L. -25,000 ft.)	200	
	V _A (Maneuvering)	146	
	V _{FE} (Flaps Extended)	Takeoff 25%	135
		Approach 37.5%	130
		Landing 100%	115
V _{MC} (Min. Control)	85		

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.0	30.0
16,424	15.9	30.0
11,051	15.0	30.0
9,481	15.0	30.0

Straight line variation between points given.

Datum

A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.

M.A.C.

Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in. aft of datum.

Leveling Means

Plumb-bob provisions on aft face cockpit compartment bulkhead.

Maximum Weights

Ramp:	17,086 lb.
Takeoff:	16,976 lb.
Landing:	16,424 lb.
MZFW:	15,653 lb.

Minimum Crew

The minimum flight crew is two pilots.

Maximum Baggage

Aft baggage comp.: 882 lb. Total - maximum floor loading: 120 lb/sq. ft.
470 lb/linear ft.

Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the INTA-approved Airplane Flight Manual.

Fuel Capacity

Total capacity: 548.00 U.S. Gal. in two wing tanks
Usable fuel: 528.00 U.S. Gal.
Unusable fuel: 20.00 U.S. Gal.
(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).

Oil Capacity

Usable Oil: 5.25 U.S. quarts in each engine tank
Unusable Oil: None

Maximum Approved Movement

25,000 ft.

Control Surface Movement

Elevator	30° Up	20° Down
Elevator Trim Tab	15.5° Up	31° Down
Rudder	27.5° Right	27.5° Left
Rudder Trim Tab	12.5° Right	19° Left
Aileron	20° Up	20° Down
Aileron Trim Tab	15° Up	15° Down
Flaps, Inner and Outer	10° Down - Takeoff	
	15° Down - Approach	
	40° Down - Landing	

All measurements taken at trailing edge from neutral position. For details of tolerances on control surface movement refer to document D.T. 77-2101.

Maximum Passengers

28 - limited by space available for accommodation.

IV. Model C-212-CE (Transport Category Airplane) approved September 9, 1985

The C-212-CE model is similar to the C-212-CD model except for incorporation of CASA Modification No. PP0956 or PP1012 which enables engine operation at a higher Takeoff (APR on) rating.

Engines (See NOTES 5 & 6) 2 - Garrett Turbine Engine Co. Model TPE331-10R-502C or TPE331-10R-512C Turboprop engines.

Prop. Shaft/Eng. Rotor Ratio: 1/26.2287

Fuel See AFM for approved fuels, alternate fuels and approved fuel additives

Oil Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHp	ESHp	% RPM	EGT (°C)
Takeoff (initial) (5 minutes)	900	944	100	650
Takeoff (APR on) (5 minutes)	925	970	100	650
Max. Continuous	900	944	100	650

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec.
100% is defined as 41,730 rpm engine rotor speed, 1591 rpm propeller shaft speed.
Transient temperature (EGT) limit (1 sec.): 770°C.

See INTA-approved Airplane Flight Manual, Document D.T. 84-2501, for additional information.

Propeller and Propeller Limits

2 Dowty Rotol Model (c) R.334/4-82-F/13 hydraulic full feathering, constant speed reversible propellers.

Blades: 4, serial number 660709314

Diameter: 110 in.

For % RPM at windmilling see INTA-approved Airplane Flight Manual, Document D.T. 84-2501.

Blade angle measured at 35.333 in radius station:

Feathered 82°30' ± 20'

Flight Idle 9° ± 20'

Start Locks -1°45' to 0°30'

Full Reverse -13° ± 1°

Airspeed Limits

		<u>Speed Knots IAS</u>
V _{MO} (Max. Operating)	(S.L. -25,000 ft)	200
V _A (Maneuvering)		146
V _{FE} (Flaps extended)	Takeoff 25%	135
	Approach 37.5%	130
	Landing 100%	115
V _{MC} (Min. Control)		88

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.0	30.0
16,424	15.9	30.0
11,051	15.0	30.0
9,481	15.0	30.0

Straight line variation between points given.

IV. Model C-212-CE (cont'd)

Datum	A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.			
M.A.C.	Length is 86.22 in.			
	The leading edge of M.A.C. is 215.04 in. aft of datum.			
Leveling Means	Plumb-bob provisions on aft fact of aft cockpit compartment bulkhead.			
Maximum Weights	Ramp:	17,086 lb.		
	Takeoff:	16,976 lb.		
	Landing:	16,424 lb.		
	MZFW:	15,653 lb.		
Minimum Crew	The minimum flight crew is two pilots.			
Maximum Baggage	Aft baggage comp.:	882 lb. Total -	Maximum floor loading:	120 lb/sq. ft. 470 lb/linear ft.
	Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the INTA-approved Airplane Flight Manual.			
Fuel Capacity	Total capacity:	548.00 U.S. Gal.	in two wing tanks	
	Usable fuel:	528.00 U.S. Gal.		
	Unusable fuel:	20.00 U.S. Gal.		
	(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).			
Oil Capacity	Usable oil:	5.25 U.S. quarts	in each engine tank	
	Unusable oil:	None		
Maximum Approved Operating Altitude	25,000 ft.			
Control Surface Movements	Elevator	30° Up	20°	Down
	Elevator Trim Tab	15.5° Up	31°	Down
	Rudder	27.5° Right	27.5°	Left
	Rudder Trim Tab	12.5° Right	19°	Left
	Aileron	20° Up	20°	Down
	Aileron Trim Tab	15° Up	15°	Down
	Flaps, Inner and Outer	10° Down - Takeoff		
		15° Down - Approach		
		40° Down - Landing		
	All measurements taken at trailing edge from neutral position. For details of tolerance on control surface movement refer to document D.T. 77-2101.			
Maximum Passengers	28 - limited by space available for accommodation.			

V. Model C-212-CF (Transport Category Airplane) approved December 6, 1985

The C-212-CF model is similar to the C-212-CC model with the same engine except for incorporation of CASA Modification No. PP0956 or PP1012 which enables engine operation at a higher Takeoff (APR on) rating.

Engines 2 - Garrett Turbine Engine Co. Model TPE331-10R-501C or TPE331-10R-511C
Turboprop engines.

Prop. Shaft/Eng. Rotor Ratio: 1/26.2287

Fuel See AFM for approved fuels, alternate fuels and approved fuel additives.

Oil Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHP	ESHP	% RPM	EGT (°C)
Takeoff (initial) (5 minutes)	900	944	100	650
Takeoff (ARP on) (5 minutes)	925	970	100	650
Max. Continuous	900	944	100	650

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec.
100% is defined as 41,730 rpm engine rotor speed, 1591 rpm propeller shaft speed.
Transient temperature (EGT) limit (1 sec.): 770°C.

See INTA-approved Airplane Flight Manual, Document D.T. 84-2502, for additional information.

Propeller and Propeller Limits 2 - Hartzell Model HC-B4MN-5AL, constant speed, hydraulic, full feathering, reversible propellers.

Blades: 4, Model LM10585B + 4
Diameter: 110 in.

For % RPM at windmilling see INTA-approved Airplane Flight Manual, Document D.T. 84-2502.

Blade angle measured at 42 in. radius station:

Feathered 83.0° ± 1.0°
Flight Idle 7.0° ± 0.3°
Start Locks -1.5° ± 0.2°
Full Reverse -10° ± 0.5°

Airspeed Limits

		<u>Speed Knots IAS</u>
V _{MO} (Max. Operating)	(S.L. -25,000 ft.)	200
V _A (Maneuvering)		146
V _{FE} (Flaps Extended)	Takeoff 25%	135
	Approach 37.5%	130
	Landing 100%	115
V _{MC} (Min. Control Speed)		88

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.0	30.0
16,424	15.9	30.0
11,051	15.0	30.0
9,481	15.0	30.0

Straight line variation between points given.

V. Model C-212-CF (cont'd)

Datum A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.

M.A.C. Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in aft of datum.

Leveling Means Plumb-bob provisions on aft face of act cockpit compartment bulkhead.

Ramp: 17,086 lb.
 Takeoff: 16,976 lb.
 Landing: 16,424 lb.
 MZFW: 15,653 lb.

Minimum Crew The minimum flight crew is two pilots

Maximum Baggage Aft baggage comp.: 882 lb. Total - Maximum floor loading: 120lb/sq. ft.
 470 lb/linear ft.

Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the INTA-approved Airplane Flight Manual.

Fuel Capacity Total capacity: 548.00 U.S. Gal in two wing tanks
 Usable fuel: 528.00 U.S. Gal.
 Unusable fuel: 20.00 U.S. Gal.
 (See NOTE 1 (b) and 1 (c) for data on system fuel oil).

Oil Capacity Usable oil: 5.25 U.S. quarts in each engine tank.
 Unusable oil: None

Maximum Approved Operating Altitude 25,000 ft.

Control Surface Movements	Elevator	30° Up	20° Down
	Elevator Trim Tab	15.5° Up	31° Down
	Rudder	27.5° Right	27.5° Left
	Rudder Trim Tab	12.5° Right	19° Left
	Aileron	20° Up	20° Down
	Aileron Trim Tab	15° Up	15° Down
	Flaps, Inner and Outer	10° Down - Takeoff	
		15° Down - Approach	
		40° Down - Landing	

All measurements taken at trailing edge from neutral position. For details of tolerance on control surface movement refer to document D.T. 77-2101.

Maximum Passengers 28 - limited by space available for accommodation.

VI. Model C-212-DF (Transport Category Airplane) approved March 30, 1989

The C-212-DF model is similar to the C-212-CE except by the modification in the nose, wingtips and vertical tail.

Engines 2 - Garrett Turbine Engine Co. Model TPE331-10R-502C or TPE331-10R-512C or
 (See NOTE 7 & 8) TPE331-10R-513C.

Prop. Shaft/Eng Rotor Ratio: 1/26.2287.

VI. Model C-212-DF (cont'd)

Fuel

See AFM for approved fuels, alternate fuels and approve fuel additives.

Oil

Oils conforming to Garrett Turbine Engine Co. Specification EMS 53110 (Type I and Type II). See approved AFM for a list of approved engine lubricating oils.

Engine Limits

Conditions	SHP	ESHP	% RPM	EGT (°C)
Takeoff (initial)(5 minutes)	900	944	100	650
Takeoff (APR on) (5 minutes)	925	970	100	650
Max. Continuous	900	944	100	650

Transient overspeed limits: 105.5% for 30 sec.; 106% for 5 sec.

100% RPM is defined as 41,730 rpm engine rotor speed, 1591 rpm propeller shaft speed.

Transient temperature (EGT) limit (1 sec.): 770°C.

See DGAC-approved Airplane Flight Manual, Document D.T. 88-2509 for additional information.

Propeller and Propeller Limits

2 Dowty Rotol Ltd, Model (c) R.334/4-82-F/13, hydraulic full feathering, constant speed, reversible propellers.

Blades: 4, serial number 660709314

Diameter: 110 in.

For % RPM at windmilling see DGAC-approved Airplane Flight Manual, Document D.T. 88-2509.

Blade angle measured at 35.333-in. radius station:

Feathered 82°32' ± 20'

Flight Idle 9° ± 20'

Start Locks -1°45' ± 0°30'

Full Reverse -13° ± 1°

Airspeed Limits

		<u>Speed Knots IAS</u>
V _{MO} (Max. Operating)	(S.L. -25,000 ft.)	200
V _A (Maneuvering)		146
V _{FE} (Flaps Extended)	Takeoff 25%	135
	Approach 25%	135
	Landing 100%	115
V _{MC} (Min. Control)		76

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.0	30.0
16,424	15.9	30.0
11,051	15.0	30.0
9,481	15.0	30.0

Straight line variation between points given.

Datum

A jig point is located in forward fuselage Frame No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.90 in. forward of the jig point.

M.A.C.

Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in. aft of datum

VI. Model C-212-DF (cont'd)

Leveling Means	Plumb-bob provisions on aft face of aft cockpit compartment bulkhead.			
Maximum Weight	Ramp:	17,086 lb.		
	Takeoff:	16,976 lb.		
	Landing:	16,424 lb.		
	MZFW :	15,653 lb.		
Minimum Crew	The minimum crew is two pilots.			
Maximum Baggage	Aft baggage comp.:	882 lb. Total - maximum floor loading:	120 lb/sq. ft.	
			470 lb/linear ft,	
	Fwd baggage comp.:	309 lb. total		
	Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the DGAC-approved Airplane Flight Manual.			
Fuel Capacity	Total Capacity:	548.00 U.S. Gal. in two wing tanks		
	Usable Fuel:	528.00 U.S. Gal.		
	Unusable Fuel:	20.00 U.S. Gal.		
	(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).			
Oil Capacity	Usable oil:	5.25 U.S. quarts in each engine tank		
	Unusable oil:	None		
Maximum Approved Operating Altitude	25,000 ft.			
Control Surface Movements	Elevator	30° Up	20°	Down
	Elevator Trim Tab	15.5° Up	31°	Down
	Rudder	20° Right	24°	Left
	Rudder Trim Tab	14° Right	14°	Left
	Aileron	20° Up	20°	Down
	Aileron Trim Tab	15° Up	15°	Down
	Flaps, Inner and Outer	10° Down - Takeoff		
		10° Down - Approach		
		40° Down - Landing		
	All measurements taken at trailing edge from neutral position. For details of tolerances on control surface movement refer to document D.T. 77-2101.			
Maximum Passengers	28 - Limited by space available for accommodation.			

VII. Model C-212-DE (Transport Category Airplane) approved October 1, 1991

Engines	2 - Pratt and Whitney Canada, Model PT6A-65B turboprop engines			
	Propeller Shaft Gear Ratio: 0.0568:1			
Fuel	Refer to Engine Service Bulletin No. 3032845-72-44 (PWC SB 13044) for listing of approved fuels			
Oil	Refer to Engine Service Bulletin No. 3032845-72-1 (PWC SB 13001) for listing of approved oils.			

VII. Model C-212-DE (cont'd)

Engine Limits

Conditions	SHP	ESHP	PROP % RPM	ITT (°C)
Takeoff (initial) (5 minutes)	1000	1069	100	820
Max. Continuous	1000	1069	100	810

100% N_G is defined as 37,468 rpm.

100% N_P is defined as 1,700 rpm (which means a Power Turbine Speed of 29,894 rpm (N_F)).

Transient temperature (ITT) limit: 1000°C for 5 seconds.

See DGAC-approved Airplane Flight Manual, Document D.T. 88-2518, for additional information.

Propeller and Propeller Limits

2 McCauley Model 4HFR34C756/106LM, constant speed, hydraulic full feathering, reversible, propellers.

Blades: 4, Model 106LM
Diameter: 106 in.

Blade angle measured at 30 in. radius station:

Feathered 86.7° ± 0.5°
Beta pick-up 19.5° ± 0.2°
Flight Idle 15° ± 0.2°
Start Locks 7° ± 0.5°
Full Reverse -10° ± 0.5°

Airspeed Limits

		<u>Speed Knots IAS</u>
V_{MO} (Max. Operating)	(S.L. -25,000 ft.)	200
V_A (Maneuvering)		146
V_{FE} (Flaps Extended)	Takeoff 25%	135
	Approach 25%	130
	Landing 100%	115
V_{MC} (Min. Control)		76

C.G. Range

Weight (lb)	FWD % MAC	AFT % MAC
16,976	16.0	30.0
16,424	15.9	30.0
11,051	15.0	30.0
9,481	15.0	30.0

Straight line variation between point given.

Datum

A jig point is located in forward fuselage Frame. No. 3 and marked on the underside of the fuselage. The C.G. reference datum is situated 43.9 in. forward to the jig point.

M.A.C.

Length is 86.22 in.

The leading edge of M.A.C. is 215.04 in. aft of datum

Leveling Means

Plumb-bob provisions on aft face of aft cockpit compartment bulkhead.

Maximum Weights

Ramp: 17,086 lb.
Takeoff: 16,976 lb.
Landing: 16,424 lb.
MZFW: 15,653 lb.

VII. Model C-212-DE (cont'd)

Minimum Crew	The minimum flight crew is two pilots.				
Maximum Baggage	Aft baggage compartment:	882 lb total			
	Fwd baggage compartment:	309 lb. total			
	Maximum floor loading:	120 lb/sq. ft. 470 lb/linear ft.			
	Baggage and/or cargo load must comply with loading limitations of approved Airplane Flight Manual, and must be loaded in accordance with loading instructions of Weight and Balance Supplement to the approved Airplane Flight Manual.				
Fuel Capacity	Total capacity:	548.00 U.S. Gal. in two wing tanks			
	Usable fuel:	528.00 U.S. Gal.			
	Unusable fuel:	20.00 U.S. Gal.			
Oil Capacity	Usable oil:	1.5 U.S. gallons in each engine tank			
	Unusable oil:	1 U.S. gallon			
	(See NOTES 1 (b) and 1 (c) for data on system fuel and oil).				
Maximum Approved Operating Altitude	25,000 ft.				
Control Surface Movement	Elevator	30°	Up	20°	Down
	Elevator Trim Tab	3°	Up	8.6°	Down
	Rudder	24.5°	Right	21°	Left
	Rudder Trim Tab	14°	Right	14°	Left
	Aileron	20°	Up	20°	Down
	Aileron Trim Tab	15°	Up	15°	Down
	Flaps, Inner and Outer	10°	Down - Takeoff		
		10°	Down - Approach		
40°		Down - Landing			
	All measurements taken at trailing edge from neutral position. For details of tolerance on control surface movement refer to document D.T. 87-2104.				
Maximum Passengers	28 - Limited by space available for accommodation.				

DATA PERTINENT TO ALL MODELS

Serial Nos. Eligible	The Spanish Export Airworthiness Certificate endorsed as noted below under Import Requirements must be submitted for each individual aircraft for which application for FAA Airworthiness Certification is made except for S/N 64N and 73N.			
	The Indonesian Export Airworthiness Certificate endorsed as noted below under Import Requirements must be submitted for Airplanes S/N 64N and 73N produced by IPTN in Indonesia and validated by the Spanish Direccion General de Aviacion Civil (DGAC) (by letter dated December 23, 1986) for which application for FAA Airworthiness Certification is made.			
Import Requirements	The U.S. Airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183 (c) or 21.185 (c).			
	The U. S. Airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country of manufacture (e.g., third party country) is FAR Section 21.183 (d) or 21.183 (b).			

The FAA can issue a U.S. airworthiness certificate based on an Export Certificate of Airworthiness (Export C of A) signed by a representative of the Spanish DGAC on behalf of the European Community. The Export C of A should contain the following statement: 'The aircraft covered by this certificate has been examined, tested, and found to conform with the Type Design approved under U.S. Type Certificate No. A43EU and to be in a condition for safe operation.'

Certification Basis

FAR Part 25 effective February 1, 1965, including Amendments 25-1 through 25-35.

FAR Part 36 effective December 1, 1969, including Amendments 36-1 through 36-17.

CASA has elected to comply with the requirements of FAR 25.855 and 25.857 as amended by Amendment 25-60 for the forward cargo compartment of the C-212-DF and C-212-DE Models.

FAA Special Condition 25-100-NW-6, dated May 18, 1981, applicable to Models -CC, -CD, -CE, -CF and -DF.

SFAR 27 effective February 1, 1974, including amendments 27-1 through 27-6 as it applies to the fuel venting emissions requirements. Compliance has been demonstrated for Model -DF with the installation of CASA modification 212.510251 and for Model -DE with the installation of CASA drawing 212-54515.

Date of application for Type Certificate: September 7, 1974.

Type Certificate No. A43EU, issued February 22, 1977.

The Spanish DGAC originally type certificated these Construcciones Aeronauticas, S.A C-212 aircraft under its type certificate Number 01-82. The FAA validated these products under U.S. Type Certificate number A43EU. Effective September 28, 2003, the European Aviation Safety Agency (EASA) began oversight of this product on behalf of the Spanish DGAC .

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) and listed in document Equipment List Report D.T. 77-2301, (Models -CC through -CF), D.T. 87-2523 (Model -DF) and D.T. 88-2315 (Model -DE) must be installed in the aircraft for certification.

In addition, the following is required:

- INTA-approved Airplane Flight Manual, Document No. D.T. 76-2501, applicable to C-212-CB Model.
- INTA-approved Airplane Flight Manual, Document No. D.T. 78-2501, applicable to C-212-CC Model, Revision 3 or later approved revisions.
- INTA-approved Airplane Flight Manual, Document No. D.T. 83-2501, applicable to C-212-DC Model.
- INTA-approved Airplane Flight Manual, Document No. D.T. 84-2501, applicable to C-212-CE Model.
- INTA-approved Airplane Flight Manual, Document No. D.T. 84-2502, applicable to C-212-CF Model.
- DGAC-approved Airplane Flight Manual, Document No. D.T. 88-2509, applicable to C-212-DF Model.
- DGAC-approved Airplane Flight Manual, Document No. D.T. 88-2518, applicable to C-212-DE Model.

Service Information

Each of the documents listed below must state that it is approved by EASA – or for approvals made before September 28, 2003 – by the Spanish DGAC. Any such documents are accepted by the FAA and are considered FAA approved. Additionally, approvals issued by Construcciones Aeronauticas, S.A. under the authority of EASA approved Design Organization EASA.21J.032 - or for approvals made before September 28, 2003 - under the authority of Spanish DGAC Design Organization Approval No. 1 are considered FAA approved. These approvals pertain to the type design only.

- TC holder Service Bulletins, except as noted below,
- Structural repair manuals
- Vendor manuals referenced in TC holder Service Bulletins
- Airplane flight manuals
- Repair instructions.

Note: Design changes that are contained in TC holder Service Bulletins and that are classified as Level 1 Major in accordance with either the US/Spain or US/EASA Bilateral Aviation Safety Agreement – Implementation Procedures for Airworthiness, must be approved by the FAA.

NOTES

NOTE 1

- (a) Current weight and balance report, including list of equipment included in certificated empty weight, - and loading instructions must be in each aircraft at the time of original certification.
- (b) Unusable fuel and system oil and all hydraulic fluid must be included in the certified weight. Unusable fuel is that quantity of fuel remaining in the system and in the tanks when the fuel quantity indicators read zero. The approved unusable fuel of 20.0 U.S. gal. (130.0 lbs.) is comprised of system and tank fuel determined under FAR 25.959.
- (c) System oil is the amount of oil required to fill the oil system and tanks up to its normal level.

NOTE 2

All placards presented in the limitations section of the approved Airplane Flight Manual must be installed in the appropriate location on the aircraft.

NOTE 3

- (a) The service life limits for aircraft structural parts which are fatigue critical are listed in the approved Airframe Maintenance Manual, Chapter 5.
- (b) Life limited parts for the Model TPE331-5-501C engine are listed in FAA-Approved Garrett Service Bulletin TPE331-72-0019 dated December 4, 1972, or later FAA-Approved revisions.
- (c) Life limited parts for the Model TPE331-10 and -10R series engines are listed in FAA-Approved Garrett Service Bulletins TPE331-72-0180, dated February 15, 1978, or later FAA-Approved revisions.
- (d) Life limited parts for the Model PT6A-65B engine are listed in DOT of Canada approved Service Bulletin 3032845-72-2 (PEC SB 13002) dated October 14, 1986, or later DOT-approved revisions.

NOTE 4

For the C-212-CC Model with the TPE331-10R-501C or -501C engines installed the INTA-approved Airplane Flight Manual, Document 78-25-1 Revision 7, dated January 8, 1982, or later approved revision is required.

NOTE 5

Engine Models TPE331-10-511C, TPE331-10R-511C and TPE331-10R-512C are the same as Models TPE331-10-501C, TPE331-10R-501C and TPE331-10R-502C with Garrett Service Bulletin No. TPE331-72-0395, effective April 1, 1983, Revision 1, dated November 10, 1983, or later revision incorporated and are eligible when CASA Service Bulletin 212-80-22 and 212-80-23 are incorporated upon installation of the later model engine.

NOTE 6

Operation of the C-212-CC and -CF Models with a TPE331-10-501C or TPE331-10R-501C engine on one side and a TPE331-10-511C or TPE331-10R-511C engine on the other side is authorized for a maximum of 300 hours after the later model engine is installed. Operation of the C-212-CD and -CE

Models with a TPE331-10R-502C engine on one side and a TPE331-10R-512C engine on the other side is authorized for a maximum of 300 hours after the later model engine is installed. C-212-CC, -CD, -CE and -CE airplane performance is unaffected with mixed engine installed.

NOTE 7 Engine Model TPE-331-10R-513C is the same as Model TPE331-10R-512C with Garrett Service Bulletin TPE331-72-0509, dated August 21, 1985, or later approved revision incorporated.

NOTE 8 Operation of the C-212-DF Model with a TPE331-10R-512C engine on one side and TPE331-10R-513C engine on the other side is authorized for an unlimited time. Operation of the C-212-DF Model with a TPE331-10R-512C or TPE331-10R-513C engine on one side, and TPE331-10R-502C engine on the other side is authorized for a maximum of 300 hours after the later model engine is installed. C-212-DF airplane performance is unaffected with mixed engines installed.

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