DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

5A5
Revision 30
Cessna
(USAF 0-1A) 305A
(USAF 0-1E) 305C
(USAF 0-1G) 305D
305F
April 4, 1994

AIRCRAFT SPECIFICATION NO. 5A5

Type Certificate Holder: Regal Air, Inc.
2040 Airway Ave.
Fort Collins, Colorado 80524

I - Model 305A (USAF 0-1A), 2 PCLM (Utility Category), Approved January 11, 1951; 2 PCSM (Normal Category), Approved February 15, 1951

Engine
Continental O-470-11 or -11B

***Fuel**
80 minimum octane aviation gasoline

***Engine Limits**
Takeoff (5 min.) 2600 r.p.m. (213 hp.)
For all other operations, 2300 r.p.m. (190 hp.)

***Airspeed Limits (TIAS)**

	Landplane	Seaplane
Maneuvering	119 m.p.h. (104 knots)	113 m.p.h. (98 knots)
Max.structural cruising	132 m.p.h. (115 knots)	113 m.p.h. (98 knots)
Never exceed	179 m.p.h. (156 knots)	158 m.p.h. (137 knots)
Flaps extended	100 m.p.h. (87 knots)	100 m.p.h. (87 knots)

***C.G. Range**
Landplane
(+36.9) to (+39.7) at 2100 lb.
(+32.6) to (+39.7) at 1800 lb. or less
Straight line variation between points given
Seaplane
(+38.2) to (+41.0) at 2400 lb.
(+33.3) to +41.0) at 2085 lb. or less
Straight line variation between points given

Empty Wt. C.G. Range
None

***Maximum Weight**
Landplane or skiplane - 2100 lb.
Seaplane 2400 lb.

No. of Seats
2 (1 at +36, observer's seat 8 lb. at +76)

Maximum Baggage
100 lb. (+100)
See NOTE 2A (2)

Fuel Capacity
Metal tanks
41 gal. total, 36 gal. usable (two 20.5 gal. tanks in wings at +44)
Self-sealing tanks (Equipment Item 603)
44 gal. total, 38 gal. usable (two 22 gal. tanks in wings at +44)
See NOTE 1 for weight of unusable fuel

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Oil Capacity	10 qt. (-15)				
Control Surface Movements	Wing flaps				
	Takeoff				0° to 30°
	Seaplane landing				0° to 45°
	Landplane landing				0° to 50°
	Ailerons	Up	20°	Down	14°
	Elevator tab	Up	16°	Down	24°
	Elevators	Up	26°	Down	20°
	Rudder	Right	16°	Left	16°
Serial Nos. Eligible	601, 21001 and up (see NOTE 3 for additional serial numbers) Prior to civil certification, 0-1A airplanes must be modified in accordance with Cessna Dwg. 0600003 which may be obtained from the manufacturer. An FAA representative, upon determination of compliance with the above mentioned modification drawing, may issue an airworthiness certificate.				
Required Equipment	Landplane - 1, 101(a) or (b) and (c), 102, 103, 201(a), (b) or (c), 202(a) or (b), 204(a), 402(a) and 601 Skiplane - 1, 101(a) or (b) and (c), 102, 103, 208(a), 402(a) and (c), and 601 Seaplane - 1, 101(a) or (b) and (c), 102, 103, 209, 402(b) and 601				

II - Model 305C (USAF 0-1E); 2 PCLM (Utility Category), 2 PCSM (Normal Category); Approved October 30, 1956

Engine	Continental O-470-11 or -11B		
*Fuel	80 minimum octane aviation gasoline		
*Engine Limits	Takeoff (5 min.), 2600 r.p.m. (213 hp.) For all other operations, 2300 r.p.m. (190 hp.)		
*Airspeed Limits (TIAS)		Landplane	Seaplane
	Maneuvering	134 m.p.h. (116 knots)	113 m.p.h. (98 knots)
	Max. structural cruising	145 m.p.h. (125 knots)	113 m.p.h. (98 knots)
	Never exceed	190 m.p.h. (165 knots)	158 m.p.h. (137 knots)
	Flaps extended	100 m.p.h. (87 knots)	100 m.p.h. (87 knots)
*C.G. Range	Landplane (+37.0) to (+40.0) at 2400 lb. (+32.6) to (+40.0) at 1880 lb. or less Straight line variation between points given Seaplane (+38.2) to (+41.0) at 2400 lb. (+33.3) to (+41.0) at 2085 lb. or less Straight line variation between points given		
Empty Wt. C.G.Range	None		
*Maximum Weight	Landplane, skiplane or seaplane - 2400 lb.		
No. of Seats	2 (1 at +36, observer's seat 8 lb. at +76)		
Maximum Baggage	100 lb. (+100) See NOTE 2B(2)		

Fuel Capacity	Metal tanks 41 gal. total, 36 gal. usable (two 20.5 gal. tanks in wings at +44) Self-sealing tanks (equipment Item 603) 44 gal. total, 38 gal. usable (two 22 gal. tanks in wings at +44) See NOTE 1 for weight of unusable fuel
Oil Capacity	10 qt. (-15)

Control Surface Movements

Wing flaps				
Takeoff				0° to 30°
Seaplane landing				0° to 45°
Landplane landing				0° to 60°
Ailerons	Up	20°	Down	14°
Elevator tab	Up	16°	Down	24°
Elevators	Up	26°	Down	20°
Rudder	Right	16°	Left	16°

Serial Nos. Eligible	23589 through 23949, 24160, 24161, 24501 through 24590, 24601 through 24609, 24700 through 24749, 305M-0001 and on. Prior to civil certification, 0-1E airplanes must be modified in accordance with Cessna Dwg. 0600062 which may be obtained from the manufacturer. In the field an FAA representative upon determination of compliance with the above-mentioned Dwg. may issue an airworthiness certificate.
Required Equipment	Landplane - 1, 101(a) or (b) and (c), 102, 103, 201(a), (b) or (c), 202(a) or (b), 204(a) and 601 Skiplane - 1, 101(a) or (b) and (c), 102, 103, 208(a) and 601, Seaplane - 1, 101(a) or (b) and (c), 102, 103, 209 and 601.

III - Model 305D (USAF 0-1G), 2 PCLM (Utility Category), 2 PCSM (Normal Category), Approved April 20, 1966

Engine	Continental O-470-11 or -118
*Fuel	80 minimum octane aviation gasoline
*Engine Limits	Takeoff (5 min.), 2600 r.p.m. (213 hp.) For all other operations, 2300 r.p.m. (190 hp.)

*Airspeed Limits (TIAS)

	Landplane	Seaplane
Maneuvering	134 m.p.h. (116 knots)	113 m.p.h. (98 knots)
Max. structural cruising	145 m.p.h. (125 knots)	113 m.p.h. (98 knots)
Never exceed	190 m.p.h. (165 knots)	158 m.p.h. (137 knots)
Flaps extended	100 m.p.h. (87 knots)	100 m.p.h. (87 knots)

*C.G.Range	Landplane (+37.0) to (+40.0) at 2400 lb. (+32.6) to (+40.0) at 1880 lb. or less Straight line variation between points given Seaplane (+38.2) to (+41.0) at 2400 lb. (+33.3) to (+41.0) at 2085 lb. or less Straight line variation between points given
Empty Wt. C.G. Range	None
*Maximum Weight	Landplane, skiplane or seaplane - 2400 lb.
No. of Seats	2 (1 at +36, observer's seat 8 lb. at +76)

Maximum Baggage	100 lb. (+100) See NOTE 2B(2)
Fuel Capacity	Metal tanks 41 gal. total, 36 gal. usable (two 20.5 gal. tanks in wings at +44) Self-sealing tanks (equipment Item 603) 44 gal. total, 38 gal. usable (two 22 gal. tanks in wings at +44) See NOTE 1 for weight of unusable fuel.
Oil Capacity	10 qt. (-15)

Control Surface Movements

Wing flaps				
Takeoff				0° to 30°
Seaplane landing				0° to 45°
Landplane landing				0° to 60°
Ailerons	Up	20°	Down	14°
Elevator tab	Up	16°	Down	24°
Elevators	Up	26°	Down	20°
Rudder	Right	16°	Left	16°

Serial Nos. Eligible	All 0-1A airplanes upon modification per Cessna Dwg. 0600520. Prior to civil certification 0-1G airplanes must be modified in accordance with Cessna Dwg. 0600062 which may be obtained from the manufacturer. In the field an FAA representative upon determination of compliance with the above mentioned modification drawing, may issue an airworthiness certificate.
Required Equipment	Landplane - 1, 101(a) or (b) and (c), 102, 103, 201(a), (b) or (c), 202(a) or (b), 204(a) and 601. Skiplane - 1, 101(a) or (b) and (c), 103, 103, 208(a) and 601. Seaplane - 1, 101(a) or (b) and (c), 102, 103, 209 and 601.

IV - Model 305F, 2 PCLM (Normal Category), 2 PCLM (Utility Category), Approved September 28, 1967

Engine	Continental O-470-11 or -11B
*Fuel	80 minimum octane aviation gasoline
*Engine Limits	Takeoff (5 min.), 2600 r.p.m. (190 hp.) For all other operations, 2300 r.p.m. (190 hp.)

*Airspeed Limits (TIAS)

	Landplane
Maneuvering	128 m.p.h. (111 knots)
Max. structural cruising	152 m.p.h. (131 knots)
Never exceed	192 m.p.h. (167 knots)
Flaps extended	101 m.p.h. (87 knots)

*C.G. Range

Normal Category
Landplane: (+33.5) to (+42.0) at 2050 lb. or less
(+37.0) to (+42.0) at 2800 lb.
Straight line variation between points given

Utility Category
Landplane: (+33.5) to (+40.0) at 1985 lb. or less
(+37.0) to (+40.0) at 2400 lb.
Straight line variation between points given

Empty Wt. C.G. Range	None
*Maximum Weight	Normal Category Landplane: 2800 lb.

	Utility Category Landplane: 2400 lb.
No. of Seats	2 (1 at +36, observer's seat 8 lb. at +76)
Maximum Baggage	100 lb. (+100) See NOTE 2C(2)
Fuel Capacity	Metal tanks 41 gal. total, 36 gal. usable (two 20.5 gal. tanks in wings at +44) Self-sealing tanks (equipment Item 603) 44 gal. total, 38 gal. usable (two 22 gal. tanks in wings at +44) See NOTE 1 for weight of unusable fuel.
Oil Capacity	10 qt. (-15)
Control Surface Movements	Wing flaps Takeoff 0° to 30° Landing 0° to 60° Ailerons Up 20° Down 14° Elevator tab Up 27° Down 16° Elevators Up 26° Down 20° Rudder Right 16° Left 16°
Serial Nos. Eligible	All Models 305C and 305D, modified per Cessna Dwg. 0600523. Prior to civil certification, 305F airplanes must be modified in accordance with Cessna Dwg. 0600066 which may be obtained from the manufacturer. An FAA representative, upon determination of compliance with the above mentioned modification drawing, may issue an airworthiness certificate.
Required Equipment	Landplane - 1, 101(a) or (b) and (c), 102, 103, 201(a), (b) or (c), 202(a) or (b), 204(a), and 601.

SPECIFICATIONS PERTINENT TO ALL MODELS (EXCEPT AS NOTED)

Datum	Front face of lower firewall
Leveling Means	Horizontal control stick torque tube
Certification Basis	Type Certificate No. 5A5 issued January 11, 1951 Application for Type Certificate dated September 30, 1949 Part 3 of the Civil Air Regulations effective November 1, 1949, (landplane and seaplane) Model 305A As amended by 3-4 (skiplane) Model 305A As amended by 3-1 through 3-10 (landplane, seaplane, skiplane), Models 305C, 305D and 305F.
Production Basis	Production Certificate No. 4, Model 305A, S/N 21001 through 23488; Model 305C, S/N 23548 through 23949, 24160, 24161, 24501 through 24590, 24601 through 24609, 24700 through 24749. Production Certificate No. 312, Models 305A and 305C, S/N 305M-0001 and up: Model 305D, S/N - All 0-1A airplanes modified per Cessna Dwg. 0600520; Model 305F, S/N - all 0-1E and 0-1D airplanes modified per Cessna Dwg. 0600523. Effective February 15, 1985, and on, Production Certificate No. 4 is applicable to all spares production.

Delegation Option Manufacturers Nos. CE-1 and CE-3 authorized to issue airworthiness certificates and approve repairs and alterations at the manufacturers facilities under the provisions of Part 21 of the Federal Aviation Regulations.

Equipment: A plus (+) or minus (-) sign preceding the weight of an item of equipment indicates net weight change when that item is installed. Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by (**) which denotes that approval has been obtained by someone other than the aircraft manufacturer. Such items may not have been manufactured under and FAA monitored or approved quality control system. Conformity must be determined if the item is not identified by a Form FAA-186, PMA or other evidence of FAA production approval.

	Propellers and Propeller Accessories		
1.	Propeller, McCauley 1A200 with following limits: Static r.p.m. at maximum permissible throttle settings: Not over 2300, not under 2200 No additional tolerance permitted Diameter: not over 90 in., not under 88.25 in.	45 lb.	(-40)
	Engine and Engine Accessories - Fuel and Oil System		
101.	Fuel pumps:		
	(a) Engine-driven, Thompson TF-1100-M2 or TF-1900	1 lb.	(- 3)
	(b) Engine-driven, Lear Romec Type G-18 RG-9080, RG9080F-1 or RG9080-2	2 lb.	(- 3)
	(c) Electric, Adel 20653-2	1 lb.	(+ 16)
	(d) Engine-driven M. C. Mfg. Co. MC-518	2 lb.	(- 3)
	(e) Engine-driven MS29584-1	2 lb.	(- 3)
102.	Oil radiator, Heat Exchangers, Inc. Model 1100 or 1100B	10 lb.	(- 31)
103.	Carburetor air filter, Air-Maze Type P-1A or AC Spark Plug A6486197	1 lb.	(- 32)
104.	Starter, Eclipse Type J-1 (a) AN 4116R1 (b) Bendix 756-10C, -16C, -22C, -22D (c) Garwin G760	20 lb.	(0)
105.	Vacuum pump (a) Type B11 or (b) Garwin G-450 or (c) Bendix 692-2A or 692-2 or (b) ARO Corp. A-513DB or (e) Pesco 3P-194F or 3P-194FA	5 lb.	(-2.5)
	Landing Gear		
201.	Two main wheel-brake assemblies, 6.00-6, Type III		
	(a) Goodyear Model LF Wheel assembly No. 511960-M Brake assembly No. 9530839	15 lb.	(+17.5)
	(b) Cleveland Wheel assembly No. 40-97E Brake assembly No. 30--63K	16 lb.	(+17.5)
	(c) Cleveland Wheel assembly No. 40-75F Brake assembly No. 30-52L	19 lb.	(+17.5)
202.	(a) Two main wheel 4-ply rating tires 6.00-6, Type III (with regular tubes)	17 lb.	(+17.5)
	(b) Two main wheel 4 or 6-ply rating ties 7.00-6, Type III (with regular tubes)	+1 lb.	(+17.5)
204.	Tail wheel assembly (a) Scott Model 3200 or 3200A	8 lb.	(+248.5)

208.	Skis		
	(a) Two Federal A-2500 per Cessna Dwg. 0600025 Eligible in utility category only. Item 210(a) required with this installation	50 lb.	(+12)
209.	Floats		
	(a) Two Edo 44-2425 or 248-2440 with auxiliary seaplane fins per Cessna Dwg. 0600026 (eligible with auxiliary seaplane fins only)	324 lb.	(+48)
210.	Tail Ski		
	(a) One Federal AT-1500 per Cessna Dwg. 0600025	4 lb.	(+248)
**211.	Whitaker Model L-19 Tandem Gear (305A only)		
	(a) With Item 202(a)	+64 lb.	(+17.5)
	(b) With Item 202(b) Installed per A.W. Whitaker, P.O.Box 1811, Portland, Oregon, installation instructions and Dwg. CTC-5 dated October 11, 1952. When this item is installed, performance information in the Flight Manual does not apply.	+67 lb.	(+17.5)
212.	Cross-wind gear per Cessna Dwg. 0600513. Not eligible with Items 208, 209 or 211.	6 lb.	(+17.5)
	<u>Electrical Equipment</u>		
301.	Generator, 24 v., 50 a.	14 lb.	(-13.5)
	(a) Eclipse 1345-3-A		
	(b) Eclipse 30B24-1-A		
302.	Battery, 24 v., 11 a. hr.	35 lb.	(+10)
303.	Landing light, G. E. 4591(2)	1 lb.	(+28)
	<u>Interior Equipment</u>		
401.	Cabin heater valve assemblies (2)		
402.	(a) FAA Approved Flight Manual dated November 28, 1950 (Landplane) (Model 305A only)		
	(b) FAA Approved Flight Manual dated February 15, 1951 (Seaplane) (Model 305A only)		
	(c) FAA approved Flight Manual Supplement No. 1, dated February 15, 1951 (Skiplane) (Model 305A only)		
403.	Electric flap installation kit in accordance with Cessna Dwg. 0625050. (Eligible only with Items 301 and 302) (Model 305A only)	Use act. wt. change	
	<u>Miscellaneous (not listed above)</u>		
601.	Safe Flight Stall Warning Indicator		
602.	(a) Basic and advance trainer kit Cessna Dwg. 0600430-100 (305A)	Use act wt. change	
	(b) Basic and advance trainer kit Cessna Dwg. 0600430-101 (305C)	Use act. wt. change	
603.	Self-sealing fuel tank kit, Cessna Dwg. 0600514	21 lb.	(+46)
604.	Radio installation Cessna Dwg. 0600516	Use act. wt. change	
605.	Radio equipment per 0600517 (305A)	Use act. wt. change	
606.	Radio installation Cessna Dwg. 0600515	Use act. wt. change	
607.	Radio Installation Cessna Dwg. 0600521 (Models 305C/305D)	Use act. wt. change	

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lb. at (+42). (this value is included in total fuel capacity).

NOTE 2. A. The following placards must be displayed in front of and in full view of the pilot or at appropriate locations on Model 305A:

(1) Below instrument panel:
Landplane and Skiplane
"This airplane must be operated as a utility category airplane in compliance with the Flight Manual."

"No acrobatic maneuvers approved except those listed in the Flight Manual. Intentional spins prohibited."

"Wing flaps - Takeoff -0° to 30°
Landing -0° to 60°"

Seaplane
"This airplane must be operated as a normal category airplane in compliance with the Flight Manual."

"No acrobatic maneuvers including spins approved."

"Wing flaps - Takeoff -0° to 30°
Landing -0° to 45°"

Landplane, Skiplane and Seaplane
"Solo from front seat only."

Below instrument panel:
Landplane, Skiplane and Seaplane
Pilot's window - "Maximum speed window open - 120 m.p.h."
Observer's window - "Maximum speed window open - 145 m.p.h."

(2) In baggage compartment:
"No baggage allowable" or "Max. baggage 100 lb. - for additional loading instructions see weight and balance data."

NOTE: The amount of baggage is dependent upon the radio equipment installed. The applicable placard is determined from the weight and balance data per NOTE 1.

(3) On instrument panel:
"Caution - Do not operate rotating beacon during instrument flight."

(4) On fuel selector valve: (Metal fuel tanks installed)
"Main tank 18 gal.
Auxiliary tank 18 gal.
Usable fuel in level flight 20 gal. each tank."

On fuel selector valve: (Self-sealing tanks installed)
"Main tank 19 gal.
Auxiliary tank 19 gal.
Usable fuel in level flight 20.5 gal."

(5) On floorboard (Seaplane only)
"Retract water rudders before takeoff or landing. Pull handle to retract."

B. The following placards must be displayed in front of an in full view of the pilot or at appropriate locations on Models 305C and 305D.

(1) Below instrument panel
Landplane and Skiplane
"This airplane must be operated as a utility category airplane in accordance with the operating limitations stated in the form of placards and markings."

"Approved maneuvers safe entry speed

Chandelle	134 m.p.h.
Lazy eight	134 m.p.h.
Steep turn	134 m.p.h.
Stall	Slow deceleration"

"Flight maneuvering load factors

Flaps up	+4.4 to -1.76
Flaps extended	+3.5"

"Maximum design weight 2400 lb."

Landplane, Skiplane and Seaplane
"Inverted maneuvers and intentional spins prohibited."

"Solo from front seat only."

(2) In baggage compartment:
"No baggage allowable" or "Max. baggage 100 lb. - for additional loading instructions see weight and balance data."

NOTE: The amount of baggage is dependent upon the radio equipment installed. The applicable placard is determined from the weight and balance data per NOTE 1.

(3) On instrument panel:
"Caution - do not operate rotating beacon during instrument flight."

(4) On fuel selector valve: (Metal fuel tanks installed)
"Main tank 18 gal.
Auxiliary tank 18 gal.
Usable fuel in level flight 20 gal. each tank."

On fuel selector valve: (Self-sealing tanks installed)
"Main tank 19 gal.
Auxiliary tank 19 gal.
Usable fuel in level flight 20.5 gal."

(5) On floorboard (Seaplane only)
"Retract water rudders before takeoff or landing. Pull handle to retract."

C. The following placards must be displayed in locations indicated on Model 305F:

(1) Below instrument panel:
"This airplane must be operated in compliance with the operating limitations stated in the form of placards and markings:

	Normal Category	Utility Category
"Maximum design weight	2800 lb.	2400 lb.
Maximum speed flaps down	100 m.p.h.	100 m.p.h
Maximum maneuvering speed	128 m.p.h.	134 m.p.h.
Maneuvering load factors		
Flaps Up	+3.8 to -1.52	+4.4 to -1.76
Flaps Down	+3.5	+3.5
Solo	Front seat only	

Approved Maneuvers	Normal Category	Utility Category
	2800 lb.	2400 lb.
Chandelle	No acrobatic	134 m.p.h.
Lazy eight	maneuvers	134 m.p.h.
Steep turn	including	134 m.p.h.
Stall (except whip stalls)	spins	slow deceleration
Spins	approved	intentional spins not permitted
Inverted maneuvers		Not permitted."

"Flap position - Takeoff - 0° to 30°
Landing - 0° to 60°
(When applicable)
Seaplane Landing - 0° to 45°"

"Pilot's window - Maximum speed window open - 120 m.p.h."
"Observer's window - Maximum speed window open - 145 m.p.h."

(2) In baggage compartment:
"No baggage allowable" or "Max. baggage 100 lb. - for additional loading instructions see weight and balance data."

NOTE: The amount of baggage is dependent upon the radio equipment installed. The applicable placard is determined from the weight and balance data per NOTE 1.

(3) On instrument panel:
"Caution - do not operate rotating beacon during instrument flight."

(4) On fuel selector valve: (Metal fuel tanks installed)
"Main tank 18 gal.
Auxiliary tank 18 gal.
Usable fuel in level flight 20 gal. each tank"

On fuel selector valve: (Self-sealing tanks installed)
"Main tank 19 gal.
Auxiliary tank 19 gal.
Usable fuel in level flight 20.5 gal."

(5) On floorboard (Seaplane only)
"Retract water rudders before takeoff or landing. Pull handle to retract."

NOTE 3. Cessna Model 305A, S/N 2001 and up, Ector Aircraft Company of Odessa, Texas; S/N AH1001, E.P. Akin and V.R. Hanson of Cupertino, California; and S/N Esther-1, Gary L. Claasson of Ozark, Alabama, assembled from surplus and spare parts are eligible for airworthiness certification under provisions of FAR 21.183(d).

In addition to the placards specified above, the prescribed operating limitations indicated by an asterisk (*) under Sections I through IV of this Aircraft Specifications must also be displayed by permanent markings.

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