

I - Model C-82A (cont'd)

Oil capacity	110 gal. (each nacelle contains one 55 gal. tank.)		
Operating limitations	USAF Handbook T.O. No. 1C-82A-1 as revised March 15, 1954. Additional Limitations to be prescribed at the time of airworthiness certification for the particular special purpose operations in accordance with CAR 8.30.		
Control surface movements	Wing flaps		Down 40°
	Aileron	Up 24°	Down 12°
	Elevator Spring Tab	Up 30°	Down 30°
	Elevator	Up 35°	Down 25°
	Rudder	Right 35°	Left 35°

II - Model C-82A Jet Packet, Approved May 12, 1961 (See NOTE 4)

Engines	(a) 2 Pratt and Whitney R-2800-85H or 85D
or	(b) 2 Pratt and Whitney R-2800-34H or 34D
or	(c) 2 Pratt and Whitney R-2800-85AM2H or AM2D
or	(d) 2 Pratt and Whitney R-2800-34M1H or M1D
and	(e) 1 Westinghouse J-30 Jet engine with either (a), (b), (c), or (d)
Fuel	100/130 minimum grade aviation gasoline
Engine limits	(a) For Pratt & Whitney R-2800-85H or 85D or Pratt & Whitney R-2800-34H or 34D, refer to Air Force Handbook C-82A, T.O. 1C-82A-1
	(b) Pratt & Whitney R-2800-85AM2H or AM2D or Pratt & Whitney R-2800-34AM1H or AM2D

Takeoff

<u>Dry</u>	2100 hp., 2800 r.p.m., 54.0 in.hg., S.L.
	2100 hp., 2800 r.p.m., 52.5 in.hg., 3400 ft.
<u>Wet</u>	2400 hp., 2800 r.p.m., 56.5 in.hg., S.L.
	2400 hp., 2800 r.p.m., 56.0 in.hg., 1000 ft.

Maximum continuous

<u>Low blower</u>	1800 hp., 2600 r.p.m., 45.0 in.hg., S.L.
	1800 hp., 2600 r.p.m., 44.0 in.hg., 6500 ft.
<u>High blower</u>	1600 hp., 2600 r.p.m., 46.5 in.hg., 10,000 ft.,
	1600 hp., 2600 r.p.m., 45.0 in.hg., 16,200 ft.
or	1500 hp., 2500 r.p.m., 43.0 in.hg., 10,000 ft.
	1500 hp., 2500 r.p.m., 42.0 in.hg., 16,000 ft.

(c) Jet-Pack 1600:

<u>Setting</u>	<u>R.P.M.</u>	<u>Oil Pressure (p.s.i.)</u>	<u>Fuel Pressure (p.s.i.)</u>	<u>Tail Pipe Temperature</u>
Light-off	Over 2200	10	4 to 17	Below 700°C*
Idle	6000	10 to 90	4 to 20	391° to 613°C
Approach Idle	10,000	25 to 90	25 to 85	350° to 580°C
Takeoff Standby	14,700	35 to 90	100 to 200	Below 675°C
Normal Rated	15,700	37 to 100	100 to 210	Below 675°C
Maximum (15 min.)	17,000*	40 to 125*	180 to 280	Below 700°C*

Oil temperature must never exceed 120°C*

*Instrument red line

II - Model C-82A (cont'd)

Propellers	2 Hamilton Standard 33E60/6801/0 (Hamilton Standard Service Bulletin 628 Item 6 Incorporated)		
Airspeed limits	Never exceed: 240 m.p.h. IAS for Serial Nos. 44-22959 through 44-23033 265 m.p.h. IAS for Serial Nos. 44-23034 and subsequent.		
C.G. range	(+318.7) to (+335.4) (Landing gear extended)		
Empty weight C.G. range	None		
Maximum weights	With the jet engine operating and with the servo tab installed per Dwg. SDC-140, the airplane may be operated over congested areas at the weights presented below. These weights are also the maximum allowed during operations over non-congested areas, with the jet engine operating or not operating. With the jet engine not operating during flight over congested areas, the maximum weights allowed are the same as for the C-82A over congested areas.		
	<u>AAF C-82A Serial Numbers</u>	<u>Take Off</u>	<u>Landing</u>
	44-22959 through 44-22968	50,000	42,000
	44-22969 thru 44-22993 and 44-23004	50,000	47,200
	44-22994 thru 44-23058 except 44-23004	54,000	54,000
	45-57733 and subsequent	54,000	54,000
Number of seats	Pilot and Copilot (+126). Seats and safety belts are required for other persons as are necessary to operate aircraft for special purpose use. (See Certification basis)		
Fuel capacity	Serial Nos. 44-22989 through 45-57737: 2488 gal. usable (two inboard fuel tanks, 642 gal. ea. and two outboard fuel tanks, 602 gal. ea.) Serial Nos. 45-57738 through 45-57782: 2600 gal. usable (two inboard tanks, 669 gals. ea. and two outboard tanks, 631 gal. ea.)		
Oil capacity	(For jet engine) 4 gal. (For reciprocating engines) 110 gal. (Each nacelle contains one 55 gal. tank)		
Operating limitations	USAF Handbook T.O. No. 1C-82A-1 as revised March 15, 1954; with FAA approved Steward-Davis Inc., airplane Flight Manual Supplement to USAF Handbook T.O. No. 1C-82A-1 (Report JPA 1073 dated January 19, 1962). Additional Limitations to be prescribed at the time of airworthiness certification for the particular special purpose operations in accordance with CAR 8.30.		
Control surface movements	Wing flaps	Down	40°
	Aileron	Up 24°	Down 12°
	Elevator Tab	Up 30°	Down 30°
	Elevator	Up 35°	Down 25°
	Rudders	Right 35°	Left 35°

III - Model C-82A Jet Packet, Approved July 23, 1963 (See NOTE 6)

Engines	(a) 2 Pratt and Whitney R-2800-85H or 85D
or	(b) 2 Pratt and Whitney R-2800-34H or 34D
or	(c) 2 Pratt and Whitney R-2800-85AM2H or AM2D
or	(d) 2 Pratt and Whitney R-2800-34M1H or M1D
and	(e) 1 Westinghouse J34-WE-34-1 Jet engine with either (a), (b), (c), or (d)
Fuel	100/130 minimum grade aviation gasoline

III - Model C-82A (cont'd)

Engine limits

- (a) For Pratt & Whitney R-2800-85H or 85D or Pratt & Whitney R-2800-34H or 34D, refer to Air Force Handbook C-82A, T.O. 1C-82A-1
- (b) Pratt & Whitney R-2800-85AM2H or AM2D or Pratt & Whitney R-2800-34AM1H or AM2D

Takeoff

<u>Dry</u>	2100 hp., 2800 r.p.m., 54.0 in.Hg., S.L.
	2100 hp., 2800 r.p.m., 52.5 in.Hg., 3400 ft.
<u>Wet</u>	2400 hp., 2800 r.p.m., 56.5 in.Hg., S.L.
	2400 hp., 2800 r.p.m., 56.0 in.Hg., 1000 ft.

Maximum continuous

<u>Low blower</u>	1800 hp., 2600 r.p.m., 45.0 in.Hg., S.L.
	1800 hp., 2600 r.p.m., 44.0 in.Hg., 6500 ft.

<u>High blower</u>	1600 hp., 2600 r.p.m., 46.5 in.Hg., 10,000 ft.
	1600 hp., 2600 r.p.m., 45.0 in.Hg., 16,200 ft.
or	1500 hp., 2500 r.p.m., 43.0 in.Hg., 10,000 ft.
	1500 hp., 2500 r.p.m., 42.0 in.Hg., 16,000 ft.

- (c) Jet-Pak 3400 (J34-WE-34-1)

Ratings

Maximum continuous static thrust, lb., r.p.m., at sea level	2650 - 11800
Takeoff static thrust (5 minutes), lb., r.p.m. at sea level	3250 - 12500
Standby idle:	
Takeoff, lb., r.p.m., at sea level	1750 - 10500
Landing, lb., r.p.m., at sea level	200 - 4375

Maximum permissible temperature limits:

Takeoff	682°C - 1260°F.
Maximum continuous	635°C - 1175°F.
Starting (5 sec.)	816°C - 1500°F.
Acceleration (15 sec.)	760°C - 1400°F.
Oil inlet	88°C - 190°F.
Turbine inlet	810°C - 1490°F.

Any engine having Engine Bulletin No. 294 incorporated will have individual turbine outlet temperature maximum values corresponding to the maximum turbine inlet temperature for takeoff on a 100°F day. Maximum continuous power is obtained at maximum continuous r.p.m. with the exhaust nozzle set for 100°F. day and the gas outlet temperature resulting, although this temperature will be lower than at takeoff.

Fuel and oil inlet pressure limits:

Fuel: Minimum at fuel line connection to engine	10 p.s.i.g.
Operating fuel inlet gage pressure	20 ± 10 p.s.i.g.
Oil: Minimum at oil line connection to engine	4 p.s.i.g.
Operating oil gage pressure	20 - 10 p.s.i.g.

Propellers

2 Hamilton Standard 33E60/6801-0 (Hamilton Standard Service Bulletin 628 Item 6 Incorporated)

Airspeed limits

Never exceed:
240 m.p.h. IAS for Serial Nos. 44-22959 through 44-23033
265 m.p.h. IAS for Serial Nos. 44-23034 and subsequent.

C.G. range

(+318.7) to (+335.4) (Landing gear extended)

Empty weight C.G. range	None															
Maximum weights	With the jet engine airworthy and operable and with the servo tab installed in accordance with Drawing SDC-140, the aircraft may be operated over congested areas at the following weights if the aircraft altitude is 3000 feet above the terrain or the altitude which will enable the aircraft to "drift down" outside the limits of the congested area, whichever is greater. Over congested areas with an aircraft altitude below 3000 feet above the terrain, or the "drift down" altitude, whichever is greater, the jet engine must be operating on standby power to permit flight at the following weights. The following weights are the maximum allowed during flight over uncongested areas, with or without the jet engine operating. Over congested areas with an aircraft altitude below 3000 feet above the terrain or the "drift down" altitude, whichever is greater, when the jet engine is not operating, the maximum weight allowed is the same as for the C-82A over congested areas.															
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Oil capacity	(For jet engine) 4 gal. (For reciprocating engine) 110 gal. (Each nacelle contains one 55 gal. tank)															
Operating limitations	USAF Handbook T.O. No. 1C-82A-1 as revised March 15, 1954; with FAA approved Steward-Davis Inc., airplane Flight Manual Supplement to USAF Handbook T.O. No. 1C-82A-1 (Report JPA 1338 dated June 14, 1963). Additional Limitations to be prescribed at the time of airworthiness certification for the particular special purpose operations in accordance with CAR 8.30.															
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<u>Data Pertinent to All Models</u>																
Datum	317.17 inches forward of the front spar jig point.															
Leveling means	Fuselage floor															
Serial Nos. eligible	AAF C-82A Serial Numbers 44-22959 thru 44-23058, 45-57733 thru 45-57832, 48-568 thru 48-587 C-82A's must be modified before they are approved as Jet Packets.															
Certification basis	CAR 8 as amended to October 11, 1950 Type Certification AR-15 issued July 7, 1955															
Production basis	None. No aircraft may be produced under this approval.															
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.															

- NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions, must be provided for each aircraft at the time of original certification.
- NOTE 2. Night and IFR (Instrument Flight Rules) flights are permitted provided the aircraft is properly equipped for such operations in accordance with CAR 43.
- NOTE 3. These aircraft do not comply with international airworthiness standards of the ICAO Annex 8 Part II; therefore, flights are not authorized over foreign countries. Special permission must be obtained from foreign countries to conduct flight over their territories.
- NOTE 4. For aircraft to be eligible for operation under Section II, the provisions of Steward- Davis Top Drawings JPA-1109 or JPA-1110 must be incorporated.
- NOTE 5. Placard required on instrument panel in full view of pilot: "Avoid operation between 1550 and 1650 r.p.m." Tachometers to be marked with red arc over this restricted speed range.
- NOTE 6. For aircraft to be eligible for operation under Section III, the provisions of Steward-Davis Engineering Report JPA 1358 must be incorporated.

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