DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A28SO
Revision 2

GENE C. DAY

R4D-8

July 31, 2015

TYPE CERTIFICATE DATA SHEET NO. A28SO

This data sheet which is part of Type Certificate No. A28SO, prescribes conditions and limitations under which the product for which the retype certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Gene C. Day
Lot 194, 7535 W. Tennessee
Tallahassee, Florida 32304

I. - Model R4D-8 (McDonnell Douglas) (Restricted Category), Approved February 3, 1984

Engines

2 Wright Aeronautical 982C9HE2

Fuel

Aviation Gasoline: Grade 100/130

Engine Limits

	HP	RPM	MP	ALT
Take-off 2 minutes	1475	2800	54.5	S.L.
Take-off 2 minutes	1475	2800	54.0	1700'
Max. Continuous	1275	2500	46.5	S.L.
Max. Continuous	1275	2500	45.5	3500'

(Straight line manifold pressure variation with altitudes shown)

Propellers

2 Hamilton Standard 43D51 hubs with 6915-7 blades.
Diameter: 10' 11" max., 10'8.5" min. allowable for repairs.
Pitch settings at 54" station low pitch stop + 13°, high pitch stop +88°

Airspeed Limits

V_{no}	(Normal Operating)	233 mph	(202 knots)	CAS
V_{ne}	(Never Exceed)	273 mph	(237 knots)	CAS
V_{p}	(Maneuvering)	144 mph	(125 knots)	CAS
V_{fe}	(Flaps Down ¼ to Full)	133 mph	(115 knots)	CAS
V_{fe}	(Flaps Down 0 to ¼)	146 mph	(127 knots)	CAS
V_{lo}	(Landing Gear Operation)	166 mph	(144 knots)	CAS
V_{le}	(Landing Gear Extension)	166 mph	(144 knots)	CAS

C. G. Range

Landing Gear Extended: (+244.6) to (+282.3)
Landing Gear Retracted: (+240.4) to (+280.8)
(Moment change due to retracting gear is -29,000 in.lbs.)

Maximum Weights

Landing: 29,325 lbs.
Takeoff 29,325 lb.s

Minimum Crew

2 (Pilot and Co-Pilot) (+31)

Fuel Capacity

Installed	Total 1626 Gallons	Usable 1596 Gallons
2 Fwd Ctr Tanks	404 gallons	396 gallons (*240.5)
2 Aft Ctr tanks	400 gallons	382 gallons (*275.9)
2 Outer Wing tanks	822 gallons	818 gallons (*272.1)

See NOTE 1(d) for fuel loading and usage.

Oil Capacity — 55 ½ gallons (1 tank in each nacelle at 27 ¾ gallons each) (*184.5)

Other Operating Limitations — Military Flight Handbook AN 01-40NK-1 dated September 1, 1953, revised October 15, 1953, and Gene C. Day Airplane Flight Manual Supplement dated February 3, 1984, and revised August 1, 1985.

Control Surface Movements

Aileron	Up	20° ± ½°	Down	14° ± ½°		
Aileron Trim Tab	Up	12° ± ½°	Down	12° ± ½°		
Elevator	Up	20° ± ½°	Down	20° ± ½°	Neutral	
Elevator Spring Tab	Down	10° ± ½°	Up	18° ± ½°	Up	5 ± ½°
Elevator Trim Tab	Up	25° + 1-0	Down	6° ± ½°		
Rudder	Left	15° ± ½°	Right	15° ± ½°		
Rudder Geared Tab	Right	6° ± ½°	Left	6° ± ½°		
Rudder Trim Tab	Left	12° ± ½°	Right	12° ± ½°		
Wing Flaps			Down	45° ± 2°		

Serial Numbers Eligible — 43378 (USN Serial No. 17119) Only

Certification Basis — FAR 21 as amended through Amendment 21-56 effective February 8, 1982.
Type Certificate No. A28SO issued February 3, 1984, for the special purpose of aerial survey and carriage of cargo.

Date of application for Type Certificate: December 1, 1983.

Production Basis — None; no aircraft may be produced under this approval.

Equipment — The basic required equipment as prescribed in the applicable airworthiness and operational regulations must be installed in the aircraft for certification.

NOTE 1.

(a) Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in the aircraft at the time of original certification adn at all times thereafter.

(b) System oil, which must be included in the aircraft empty weight, is that amount required to fill both systems and the tanks up to the tank outlets to the engine, when the airplane is in the level altitude. System oil is not included in tank capacity shown on this data sheet.

(c) Unusable fuel is the difference between tank capacity and usable fuel shown on this data sheet and must be included in the airplane empty weight or accounted for in the airplane weight and balance report.

(d) Fuel must be loaded in the following order:
(1) Forward center wing tanks
(2) Aft center wing tanks and
(3) Outer wing tanks. Fuel must be used in the reverse order of loading except that forward center wing tanks must be used for takeoff, climb and landing.

NOTE 2. The following placards are required:

(a) On the instrument panel in full view of the pilot:
(1) "This airplane is not approved for flight into icing conditions."
(2) "Avoid continuous engine operation below 1800 rpm."
(3) "AUTOMATIC PROPELLER FEATHERING SYSTEMS ARE NOT INSTALLED."
(4) "This airplane must be operated as a restricted category airplane in compliance with FAR 91.39 and the operating limitations stated in the form of placards, markings, and manuals."

(b) Adjacent to the fuel filler opening of each tank:
"FUEL AVGAS 100/130"

(c) At oir near the oil filler openings: "OIL"

NOTE 3. On July 29, 2015 a search of all FAA files and records was conducted and no type design records were found.

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