

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TT00006AT
BROWN GRUMMAN MOHAWK OV-1C
January 9, 1995

TYPE CERTIFICATE DATA SHEET NO. TT00006AT

This data sheet, which is part of Type Certificate No. TT00006AT, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations (FAR).

Type Certificate Holder: Terry R. Brown
P.O. Box 601
Daleville, AL 36322

I. - Model OV-1C (Restricted Category) approved January 9, 1995

Engines 2 Lycoming T53-L-7A

Engine Limits

	Time (min)	Propeller N2 Speed (RPM)	Compressor N1 Speed (%RPM)	Torque (PSI)	Exhaust Gas Temp (°C)	Oil Temp (°C)	Oil Pres (PSI)
Takeoff	30	1720	101.5	97	640	93	60
Normal	Cont.	1720	101.5	89	620	93	60
Start	*	1720	101.5	97	-	93	10
Trans.	2 sec.	1720	101.5	156	-	93	80
Reverse	5	1720	101.5	97	640	93	60

*Do not exceed starter engagement limits of 45 sec. on, 2 min. off for three starts; and 45 sec. on, 5 min. off for all additional starts.

Special inspections are required for operating outside the governor speed range, and for engines subjected to overspeed. The propeller governor speed range should be 1175 ± 25 RPM to 1678 ± 15 RPM. An engine overspeed exists when Compressor N1 speed exceeds 101.5%, or Propeller N2 speed exceeds 1850 RPM, or Propeller N2 speed exceeds 1720 RPM for more than 3 sec.

Special inspections are required for engines subjected to overtorque conditions. See Technical Manual TM55-1510-204-10 for maximum torque limits.

Special inspections are required for engines subjected to excessive temperatures. An engine overtemperature condition exists when exhaust gas temperature (EGT) exceeds 640°C for more than 10 sec., or 650°C for more than 5 sec., or 760°C .

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Fuel	Commercial aviation turbine fuels conforming to ASTM Specification No. D-1655, Types Jet B, Jet A, or commercial equivalents of MIL-T-5624, Grade JP-4 or JP-5		
Lubrication	Commercial turbine lubricant equivalent to MIL-L-7808 or MIL-L-23699		
Propeller	2 Hamilton Standard constant speed, reversible pitch, with synchrophasing, synchronizing and autofeathering features		
	Hub Model	53C51-27	
	Blade Model	7125C6	
	Diameter	10 ft. 0 in.	
	Low Pitch Setting	16.4 degrees	
Airspeed Limits	V _{mo} (Maximum Operating)	385 KIAS	
	V _a (Maneuvering)	213 KIAS	
	V _{lo} (Landing gear/flap operation)	153 KIAS	
	V _{ll} (Landing light extension)	180 KIAS	
	For additional airspeed limits, see TM 55 -1510-204-10.		
C.G. Range	+156.36 to +167.14 at all weights		
Datum	Reference datum '0' is 97.46 in. forward of jig point. Reference stations are distances in inches aft of reference datum '0'.		
Leveling Means	Plumb bob located in forward equipment compartment		
Maximum Gross Weight	16,000 lbs.		
Minimum Crew	1 (pilot) at +65.00 in.		
Number of Seats	2 (1 pilot, 1 observer/co-pilot) at +65.00 in.		
Fuel Capacity	Main Tank	297 gal. (1930 lbs.) at +165.00 in.	
	Drop Tanks (2 @ 150 gal.)	300 gal. (1950 lbs.) at +175.00 in.	
	Drop Tanks (2 @ 300 gal.)	600 gal. (3900 lbs.) at +175.00 in.	
	Unusable Fuel	6 gal. Main Tank 3 gal. all Drop Tanks	
Oil Capacity	5 gal., 0.7 gal. undrainable		
Maximum Operating Altitude	25000 ft.		
Control Surface Movements	Elevator	Up	25 ± 1°
		Down	15 ± 1°
	Trim Tab -	Up 7°, Down 5°	
	Rudder	Center	Left 24 ± 1° Right 24 ± 1°
		Outboard	Left 27.5 ± 1.5° Right 27.5 ± 1.5°
		Trim Tab -	7° left/right of center

	Outboard Aileron, measured at inboard trailing edge, $25 \pm 1^\circ$ Spring Tab, measured at outboard edge, $16 \pm 1^\circ$ Trim Tab $15 \pm 1^\circ$ Inboard Aileron (flaperon), measured with flaps at 15° Down or 45° Down and with the new datum being the 25° flaperon extended position, Up $24^\circ \pm 1^\circ$ Down $25^\circ \pm 1^\circ$
Serial Numbers Eligible	S/N 61-2692
Certification Basis	FAR 21.25 (a)(2) and FAR 21.25(b)(7) effective February 1, 1965 as amended by Amendment 21-42 effective February 7, 1975. Restricted Type Certificate TT00006AT issued January 9, 1995, for the special purpose of patrolling for fires.
Production Basis	None. Prior to original airworthiness certification of each airplane, FAA personnel must perform an airworthiness inspection to verify it is in condition for safe operation and must witness a satisfactory flight test.
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for airworthiness certification. In addition, the U.S. Army operator's manual, TM 55 -1510-204-10, and the FAA approved Terry R. Brown Supplemental Airplane Flight Manual, dated January 9, 1995, or later FAA approved revision, for changes resulting from disabling the ejection seats and removing external stores jettison capability.
Note 1.	Current weight and balance report, such as Form DD 365F, including a list of equipment included in the certificated empty weight, must be provided for each airplane at the time of original airworthiness certification.
Note 2.	This approval applies to Grumman Aerospace Corporation U.S. Army Model OV-1C airplanes incorporating modifications as described in Terry R. Brown Report No. 0001, no revision, dated August 17, 1994, or later FAA approved revisions.
Note 3.	Airplanes eligible for original airworthiness certification under Type Certificate TT00006AT may be issued Certificates of Airworthiness in the Restricted Category for the special purpose of patrolling for fires. Airplanes for which such Certificates of Airworthiness have been issued must be operated in compliance with the operating limitations for restricted category civil aircraft specified in FAR 91.313.
Note 4.	The following placards must be displayed in front of and in clear view of the pilot(s): (a) "THIS AIRPLANE MUST BE OPERATED AS A RESTRICTED CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS, AND FAR 91.313." (b) "EJECTION SEATS HAVE BEEN DISABLED."
Note 5.	All applicable Technical Bulletins and Maintenance Work Orders for the Model OV-1C must be accomplished before airworthiness certification of that airplane.
Note 6.	Maintenance and inspections of the OV-1C will be done in accordance with Terry R. Brown Report "Grumman OV-1C "Mohawk Inspection Program I.A.W. Federal Aviation Regulation 91.409(f)(4)", no revision, dated March 11, 1992.

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