

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A40CE
Lockheed
U.S. Navy
SP-2H (P2V-7)
Revision 1
September 17, 2003

TYPE CERTIFICATE DATA SHEET NO. A40CE

This data sheet which is part of Type Certificate No. A40CE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Central Air Service, Inc.
RFD 1, Box 101
Rantoul, Kansas 66079

I. Model SP-2H (P2V-7) (Restricted Category), Approved September 6, 1991

Engines (a) 2 Curtiss-Wright R3350-32WA
Reduction gear ratio 16:7
(2 jet engines removed)

Fuel MIL-G-5572 Grade 100/130

Engine Limits (a) R-3350-32WA (Fuel Grade 100/130 (100LL) Low Blower Only)

	BHP	RPM	M.P. in. Hg.	Alt. (Ft.)
Takeoff (5 minutes dry)	2900	2900	54.0	Sea Level
Takeoff (5 minutes dry)	2900	2900	53.0	2,000
Max. Continuous	2600	2600	48.5	Sea Level
Max. Continuous	2655	2600	47.5	4,000

*Reverse pitch operations are restricted to a maximum of 2600 r.p.m.

Airspeed Limits V_{NE} (Never Exceed) 350 KIAS
V_{FE} (Flaps extended 5°) 210 KIAS
V_{FE} (Flaps extended 10°) 210 KIAS
V_{FE} (Flaps extended 15°) 200 KIAS
V_{FE} (Flaps extended 20°) 175 KIAS
V_{FE} (Flaps extended 25°) 155 KIAS
V_{FE} (Flaps extended 32°) 145 KIAS
V_{LE} (Max. gear extended) 155 KIAS
V_A (Max. maneuvering) 160 KIAS
V_{MC} (Min. control) 108 KIAS

Propeller and Propeller Limits Hubs - 2 Hamilton Standard 24260-313 or 24260-337 or 24260-223
Blades - 4/2J17H3-36S or 2J17Z3-36S or 2FJ17C3-36S
Diameter limit - 14 ft. 2 in.- no cutoff permitted
Continuous ground operation between 2000 and 2400 is prohibited

Pitch setting at 72-inch station:

Low pitch 14° (±0.5°)
Feathered +82° (± 0.5°)
Reverse -22° (± 0.5°)

Interchangeable blades - These blades can be used interchangeably in the same propeller provided they are used in pairs and installed in opposite arms and that the prefix letters for opposite blades and the cut-off dash numbers for all blades are the same.

Page No.	1	2	3
Rev. No.	1	-	1

C.G. Range	Aft of datum, landing gear extended, MAC (Sta.): 19.4% (354.58) to 36% (375.53) @ 46,000 lbs 19.4% (354.58) to 36% (375.53) @ 60,000 lbs
Empty Wt. C.G. Range	None
Datum	The reference datum is located at fuselage station 0.
MAC	The leading edge of the MAC is located at fuselage station 330.1 The length of the MAC is 126.2 inches.
Leveling Means	Level the aircraft by dropping a plumb bob from the leveling hook through the leveling grid in the nose wheel well.
Maximum Weight	Takeoff, dry 60,000 lbs Landing 60,000 lbs Zero fuel, oil, and ADI 55,000 lbs
Crew and Number of Seats	Pilot and Co-pilot 2 at 158", occupancy limited to persons essential to perform the special purpose operation.

Fuel Capacity

Total Fuel Per Tank

	No. Tanks	U.S. Gal	U.S. Gal	Lbs	ARM
Wing (main)	2	715	1430	8580	+376.5"
Center Section	2	790	1580	9480	+382.5"

Oil Capacity

Total Oil Per Tank

	No. Tanks	U.S. Gal	U.S. Gal	Lbs.	ARM
Nacelle Tank (expansion space)	2	80 20	160 -	1136 -	+382.7"

Water Injection Tank Capacity

Total ADI Per Tank

	No. Tanks	U.S. Gal	U.S. Gal	Lbs.	ARM
Nacelle Tank	2	25	50	375	+316.0"

Fluid - AMS - 3006 Type I which specifies 48-52% methyl alcohol by volume and 48 - 52% water by volume.
(Optional equipment)

Control Surface Movements	Aileron	Up	22° ± -1°	Down	15°30' ± 1°
	Aileron Tab	Up	15°45' ± -2°	Down	16°20' ± -2°
	Elevator	Up	27°37' ± -1°30'	Down	27° ± -1°30'
	Elevator Trim Panel	Up	7° + 1/4° -0°	Down	3° + 1/4° -0°
	Spoiler	Up	55° -60°		
	Rudder Trim Tab	Left	10°	Right	10°30'
	Rudder	Left	21°	Right	21°

Aileron Spring Tab: Adjust spring tab in accordance with NAVWEPS 01-76EEB-2-3 figure 3-16

Serial Nos. Eligible

U.S. Navy Bureau Number 147948

Certification Basis	<p>FAR 21.25 (a) (2) and (b)</p> <p>Type Certificate issued September 6, 1991, for the special purpose of wildlife conservation.</p> <p>Application for Type Certificate: April 5, 1991.</p> <p>A finding of No Significant Impact (FONSI) for the modified Lockheed (Navy) Model SP-2H (P2V-7) aircraft has been accomplished and approved on May 10, 1991. A finding under the applicable provisions of the Noise Control Act of 1972 has been accomplished and approved on May 10, 1991, for the modified Lockheed SP-2H (P2V-7) aircraft (Restricted Category- Military Surplus).</p>
Production Basis	<p>None - Prior to original airworthiness certification of each aircraft, FAA personnel must perform an airworthiness inspection determining condition for safe operation and determine the applicant has conducted a satisfactory flight test.</p>
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. Equipment necessary for the particular special purpose operation must be installed. In addition, an FAA approved Airplane Flight Manual Supplement is required. (See NOTES 2 and 4).</p>
NOTE 1	<p>Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary must be provided for in each aircraft at the time of original airworthiness certification.</p>
NOTE 2	<p>The aircraft shall be operated in accordance with NATOPS Flight Manual Navy Model SP-2H Aircraft NAVAIR 01-75EEB-1 (procedures and limitations) and Flight Handbook Navy Model P2V-7 Aircraft AN-01-75-EEA-1 (performance) except wherein superseded by Central Air Service, Inc. FAA Approved Airplane Flight Manual Supplement dated August 15, 1991, original issue or later approved revision.</p>
NOTE 3	<p>Prior to civil certification, compliance with the following Department of the Navy Service Bulletins Aircraft and Aircraft Service Changes must be accomplished:</p> <p>SP-2H (P2V-7) Airframe and Interim Airframe Bulletins - - Nos. 1, 4, 5, 6, 8, 9, 10, 12, 13, 14, 17, 18, 19, 20 Rev. B, 21 and Amend. 1, 22, 23, 24, 25, 26 and Amend. 1, 27 Rev. A, 31 and Amend. 1, 63, 65, 67, 69 and Amend. 1, 72, 74, 75, 78, 81, 82, 83 Amend. 1, 86, 88, 90, 91, 92, 93, 94, 95 and Amend. 1, 98, 100, 101, 102, 103, 104, 105, 107, 108, 110, 114 Rev. A, 115, 116 and Amend. 1, 117, 118, 119.</p> <p>P2V-7 Aircraft Service Changes - - 605, 676, 681, 688, 694, 697, 699, 709, 714, 721, 722, 724, 733, 735, 737, 751, 752, 753A, 758A, 765A, 768, 770, 781, 783, 787A, 793, 795, 798, 802, 803A, 806A, 807, 812, 815, 816, 817, 819, 822, 826, 831B, 839C, 843, 845A, 848A, 851, 856, 861A, 862, 864, 878, 894 Amend. 1, 896 Amend. 1, 898, 900, 903, 912, 923, 924 Amend. 1, 928, 929, 931 Amend. 1, 934, 935, 937, 940, 941, 948, 952, 953 Amend. 1, 955A, 979, 980, 981, 987, 991.</p> <p>Wright R3350-32WA Engine Bulletins - - 469 Rev. A Amend. 2, 474 Rev. A, 490 Rev. A, 494 Rev. B, 516, 517, 518, 519 Amend. 1, 520 Amend. 1, 562 Rev. A, 564 Rev. B Amend. 2, 566 Rev. B, 625 Rev. A Amend. 1, 635 Rev. C, 646 Rev. A, 656 Rev. A, 663, 681, 682 Rev. A, 687, 693, 694 Amend. 1, 698, 707, 708, 709, 711 Amend. 1, 713 Rev. A, 714 Rev. B, 716 Amend. 1, 720, 721 Rev. B Amend. 1, 722, 726 Amend. 1, 727, 731, 732, 735, 736, 737, 742 Amend. 2, 750, 751 Rev. A, 752.</p>
NOTE 4	<p>Modification to these aircraft to remove jet engines and permanently disable engine cockpit controls and wing fuel valves in accordance with Central Air Service, Inc. letter dated May 17, 1991, will be necessary prior to civil airworthiness certification to the special purpose of wildlife conservation.</p>
NOTE 5	<p>Restricted Aircraft Airworthiness Certificates issued are effective under FAR 21.181 (a) (1) as long as maintenance and preventive maintenance are performed in accordance with FAR 43 and FAR 91, Subpart E.</p>

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