

A24NM
Revision 1
Aero Union Corporation
U.S. Navy
SP-2H (P2V-7)
September 25, 1987

This data sheet, which is a part of Type Certificate A24NM prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

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

	BHP	RPM	M.P. in HG	ALT (FT)
Takeoff (5 minutes wet)	3696	2900	59.0	Sea Level
Takeoff (5 minutes wet)	3716	2900	59.0	2000
Takeoff (5 minutes dry)	2900	2900	54.0	Sea Level
Takeoff (5 minutes dry)	2900	2900	53.0	2000
Max. Continuous	2600	2600	48.5	Sea Level
Max Continuous	2655	2600	47.5	4000

Airspeed Limits	V _{NE} (Never exceed)	270 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 extend)	155 KIAS
	V _A (Max maneuvering)	160 KIAS
	V _{MC} (Min. Control)	97 KIAS

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Propeller and Propeller Limits	<p>Hubs - 2 Hamilton Standard 24260-313 or 24260-337 or 24260-223 Blades - 4 2J17H3-36S or 2J17Z3-36S or 2FJ17C3-36S Diameters limits 14 ft. 2 in. - No cutoff permitted</p> <p>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°)</p> <p>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.</p>																												
Fire Retardant Dumping Envelope	(See NOTE 2) 120 KIAS to 145 KIAS Flap extended 10° Min.																												
C.G. Range	<p>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) @ 61,400 lbs 21.56% (357.31) to 36% (375.53) @ 67,500 lbs. Straight line variation between points given.</p>																												
Empty Weight C.G. Range	None																												
Datum	The reference datum is located at fuselage station 0.																												
Mean Aerodynamic Chord (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	67,500 lbs																											
	Landing	67,500 lbs																											
	Zero fuel, oil, and ADI	59,100 lbs																											
Crew & Number of Seats	<p>Pilot and co-pilot 2 at 158", occupancy limited to persons essential to perform the special purpose operation.</p>																												
Fire Retardant	2000 gallons (U.S.) 18,000 lbs at +394.6".																												
Fuel Capacity	<table border="0"> <tr> <td></td><td colspan="5">Total Fuel Per Tank</td></tr> <tr> <td></td><td><u>No. Tanks</u></td><td><u>U.S. Gal</u></td><td><u>Lbs.</u></td><td><u>Lbs.</u></td><td><u>ARM.</u></td></tr> <tr> <td></td><td>2</td><td>715</td><td>1430</td><td>8580</td><td>+376.5"</td></tr> <tr> <td>Wing (main)</td><td colspan="5">All other fuel tanks permanently removed</td></tr> </table>						Total Fuel Per Tank						<u>No. Tanks</u>	<u>U.S. Gal</u>	<u>Lbs.</u>	<u>Lbs.</u>	<u>ARM.</u>		2	715	1430	8580	+376.5"	Wing (main)	All other fuel tanks permanently removed				
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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 Numbers Eligible

U.S. Navy Bureau Numbers:
 135596 140963 145903 145917 145920
 147959 147964 147967 147968 148339
 148343 150281 150283

Production Basis

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. See NOTE 5 for data on Service Bulletins and ADs.

Certification Basis

14 CFR part 21 § 21.25 (a) (2) and (b). Type Certificate issued September 25, 1987 for the special purpose of forest and wildlife conservation (firefighting). Date of application May 20, 1986. The modifications incorporated are considered appropriate to the special purpose operation, forest and wildlife conservation (firefighting). The criteria established in Civil Air Regulations Part 4B appropriate to the special purpose operation has been used to evaluate these particular changes and demonstrate that the original level of airworthiness established by the military requirements has not been reduced. A Finding of No Significant Impact (FONSI) for the modified Lockheed (Navy) Model SP-2H (P2V-7) Aircraft has been accomplished and approved on September 23, 1987. A finding under the applicable provisions of the Noise Control Act of 1972 has been accomplished and approved on September 23, 1987, for the modified Lockheed SP-2H (P2V-7) Aircraft (Restricted Category-Military Surplus).

Equipment

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 & 4)

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 in each aircraft at the time of original airworthiness certification.

NOTE 2

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-6 Aircraft AN-01-75EEA-1 (performance) except wherein superseded by Aero Union Corporation FAA Approved Airplane Flight Manual Supplement dated September 22, 1987 original issue or later approved revision.

NOTE 3

Prior to civil certification compliance with the following Department of the Navy Service Bulletins Aircraft and Aircraft Service Changes must be accomplished:

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.

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, 948, 952, 953 Amend 1, 955A, 979, 980, 981, 987, 991.

Wright R3350-32WA engine Bulletins - - 469 Rev A Amend 2, 474 Rev A, 494 Rev B, 490 Rev A, 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.

NOTE 4

Modification to these aircraft and installation of special equipment will be necessary (reference § 21.25(a)(2)) or (b)(2), prior to civil airworthiness certification to the special purpose of forest and wildlife conservation (firefighting) and for any other FAA approved special purpose operation in accordance with Aero Union Master Drawing List 10801, Rev. H, dated September 8, 1987.

NOTE 5

Restricted Aircraft Airworthiness Certificates issued are effective under § 21.181(a) (1) as long as maintenance and preventive maintenance are performed in accordance with part 43 and part 91, Subpart E.

....END.....