

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEP

COLUMN NUMBER	1	2	3	4
LOADING CONDITION	SCOUT	SCOUT	SCOUT	PATROL 1-325#
GROSS WEIGHT LBS.	5265	5600	5865	5900
EMPTY WEIGHT (Actual) LBS.	3749			
FUEL/OIL GALS.	141/10	197/10	241/10	191/10
FIXED GUNS/AMMUNITION	1-.30/500			
FLEXIBLE GUNS/AMMUNITION	1-.30/600			
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING LBS/SQFT.	20.1	21.4	22.4	22.5
POWER LOADING ① LBS/BHP.	13.2	14.0	14.7	14.75
V-MAX. SEA LEVEL MPH	165	164	163	157
V-MAX. AIRPLANE CRIT. ALT. MPH	172/5500	171/5500	170/5500	165/5500
V-STALL. GROSS WEIGHT ② MPH	60.2	62.0	63.6	63.8
V-STALL. WITHOUT FUEL ② MPH	55.1	55.1	55.1	57.2
TIME-TO-CLIMB - 8000FT.- MIN.	7.4	8.9	10.5	11.5
TIME-TO-CLIMB - 10000FT.- MIN.	17.1	21.0	25.4	27.9
SERVICE CEILING FT.	15500	14100	13000	12500
TAKE-OFF DISTANCE -CALM- FT.	985	1155	1305	1360
TAKE-OFF DISTANCE -15 KN- FT.	580	690	795	830
TAKE-OFF DISTANCE -25 KN- FT.	370	460	525	555
TAKE-OFF TIME SECONDS				
MAX RANGE/V-AV ③ STMI/MPH.	910/125	1230/125	1480/125	1075/118
BOMBING RADIUS/V-AV-20% R- NMI/KN.				
BOMBING RADIUS/V-AV-33% R- NMI/KN.				
PATROL RADIUS/V-AV-20% R- NMI/KN.				
PATROL RADIUS/V-AV-33% R- NMI/KN.				
SCOUT. RADIUS NMI.	220	320	385	280
COMBAT RADIUS NMI.				
ENGINE /PROP GEAR RATIO	P & W R-985-AN-2 or -8 (D.D.)			
ENGINE RATING BHP/RPM/ALT.	NORMAL		MILITARY	
	400/2200/S.L.-5500			
	450/2300/Take-off			

NOTE STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS.
 ① BHP AT MAX. CRIT. ALT. ② STALL-WITHOUT POWER ③ AT 5000' ALTITUDE

	TANKAGE IN GALLONS	OIL	FUEL	OFFENSIVE ARMAMENT
FIXED	PROTECTED	10	100	
	UNPROTECTED		141	WINGS (External)
	TOTAL-INCL. PROT.	10	241	Bombs : 2-100# (Max.)
	INCREASE-REMOVED PROTECTION	(Fixed)		Depth Bombs: 2-325# (Max.)
AUX.				
	DROPPABLE	None		
	DROPPABLE	None		
	PROTECTED+UNPROTECTED+DROPPABLE.	30	241	

REMARKS- Conditions #5 and #6: Vapor-Dilution system, all armor, flexible gun and ammunition removed; condition #5 has the protected wing tanks removed also.

SUPERSEDES 12/7/42

DATE- 1 AUG 1943

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ALSO OS2N-1

MODEL-OS2U-3

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	5	6		
LOADING CONDITION	INSHORE PATROL 2-325#	INSHORE PATROL 2-325#		
GROSS WEIGHT LBS.	5425	5936		
EMPTY WEIGHT (Actual) LBS.	3313	3524		
FUEL/OIL GAL.S.	141/10	191/10		
FIXED GUNS / AMMUNITION	1-.30/500			
FLEXIBLE GUNS / AMMUNITION	None			
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL		
WING LOADING LBS/SQ.FT.	20.7	22.7		
POWER LOADING ① LBS/BHP.	13.56	14.84		
V-MAX. SEA LEVEL MPH.	155	153		
V-MAX. AIRPLANE CRIT. ALT. MPH.	163/5500	160/5500		
V-STALL. GROSS WEIGHT. ② MPH.	61.1	64.0		
V-STALL. WITHOUT FUEL. ② MPH.	56.2	57.4		
TIME-TO-CLIMB - 5000FT.- MIN.	8.8	11.9		
TIME-TO-CLIMB - 10000FT.- MIN.	20.3	29.6		
SERVICE CEILING FT.	14300	12000		
TAKE-OFF DISTANCE -CALM- FT.	1100	1405		
TAKE-OFF DISTANCE -15 KN- FT.	660	865		
TAKE-OFF DISTANCE -25 KN- FT.	430	580		
TAKE-OFF TIME SECONDS.				
MAX. RANGE / V-AV. ③ ST. MI / MPH.	790/115	1015/114		
BOMBING RADIUS / V-AV-20% R- NMI / KN.				
BOMBING RADIUS / V-AV-33% R- NMI / KN.				
PATROL RADIUS / V-AV-20% R- NMI / KN.				
PATROL RADIUS / V-AV-33% R- NMI / KN.				
SCOUT. RADIUS NMI.	195	260		
COMBAT RADIUS NMI.				

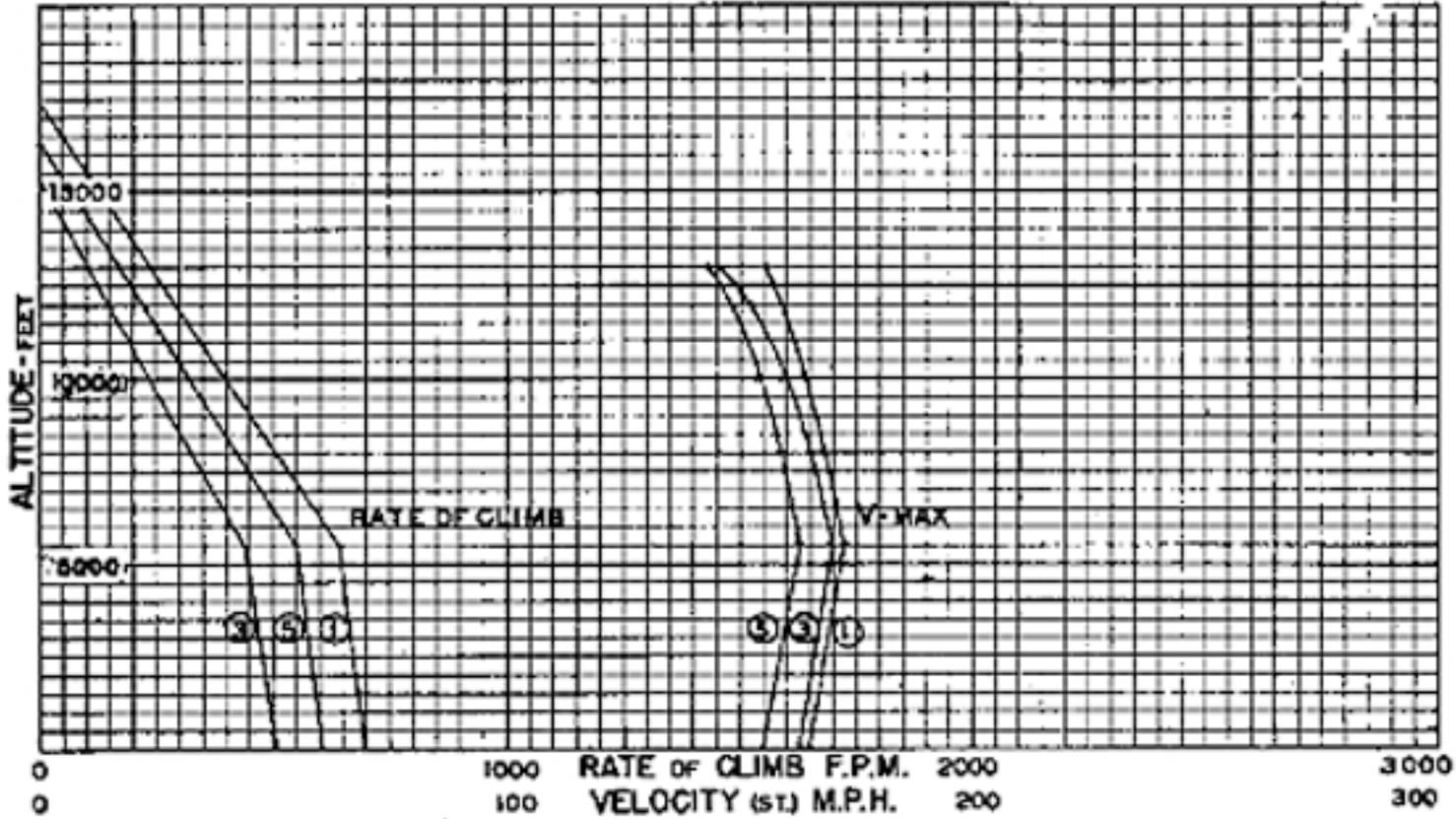
PERFORMANCE IS BASED ON- FLIGHT TEST

RANGE & RADIUS ARE BASED ON FLIGHT TEST FUEL CONSUMPTION DATA INCREASED BY PERCENT TO CONFORM WITH PAST EXPERIENCE.

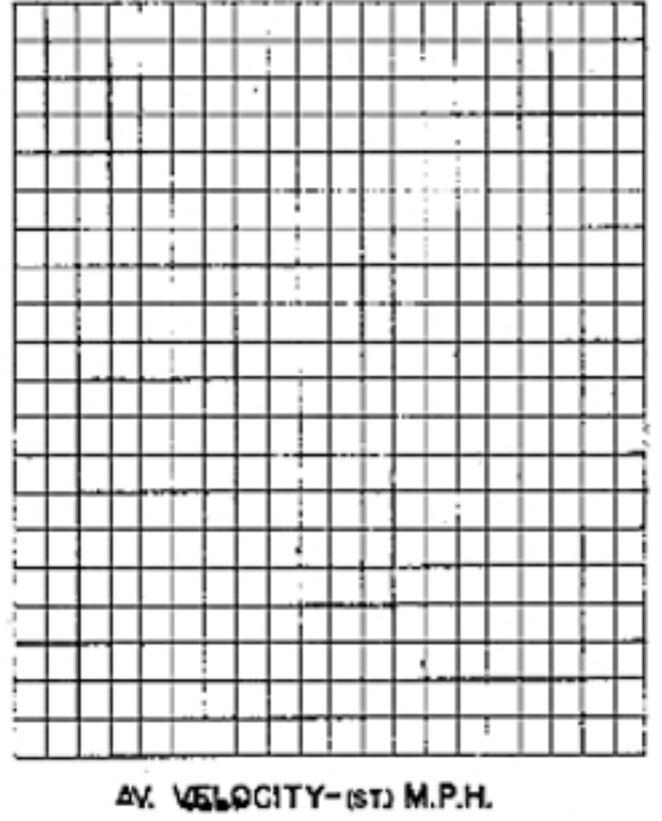
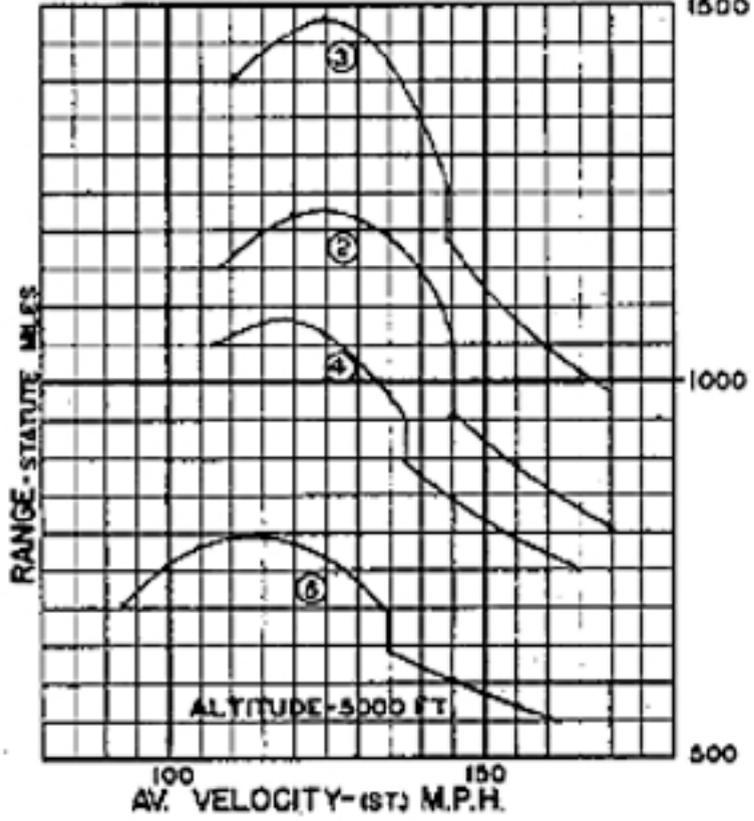
Practical Scouting radius is 1/3 of range at V for max. range at 1500 ft. with fuel taken out for 20 min. warm-up and idle, 1 min. take-off and 60 min. for rendezvous, landing and reserve.

The following changes are incorporated:- Contract - thru AG, Service - thru #60.

Because of take-off characteristics, the airplane should be operated with caution when loaded over 5600#. Catapulting is satisfactory at 6000#.

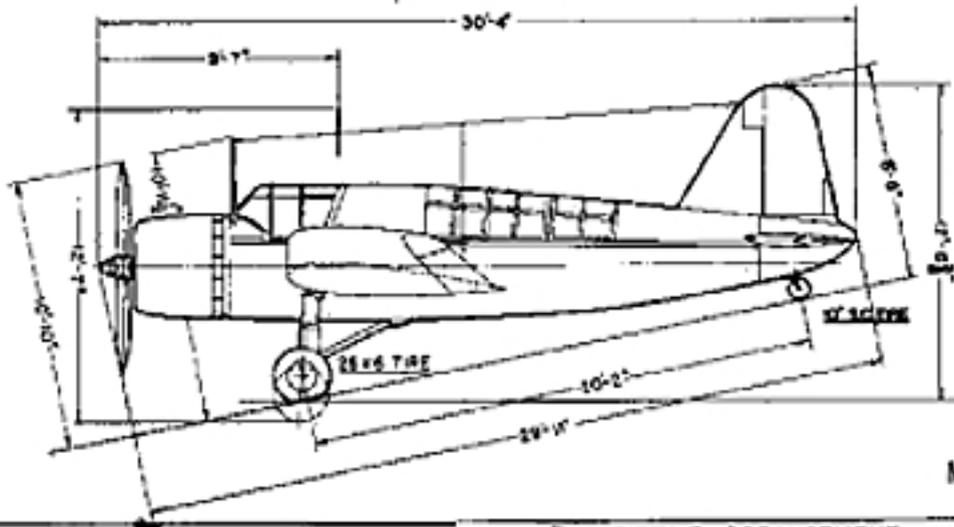
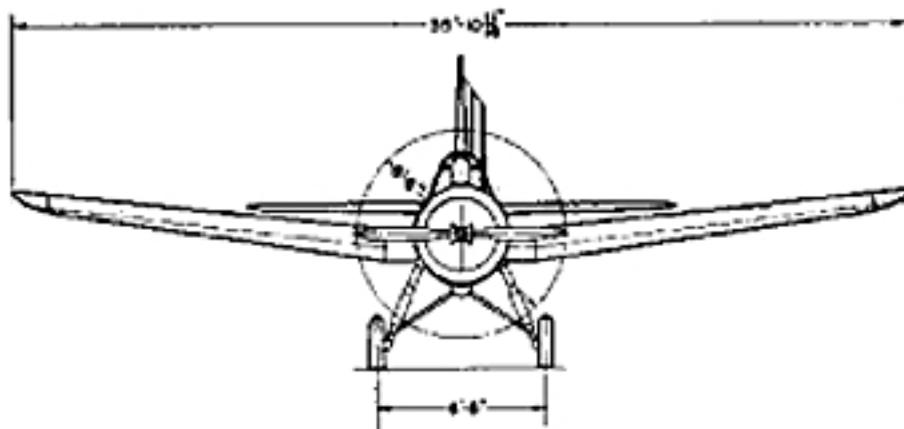
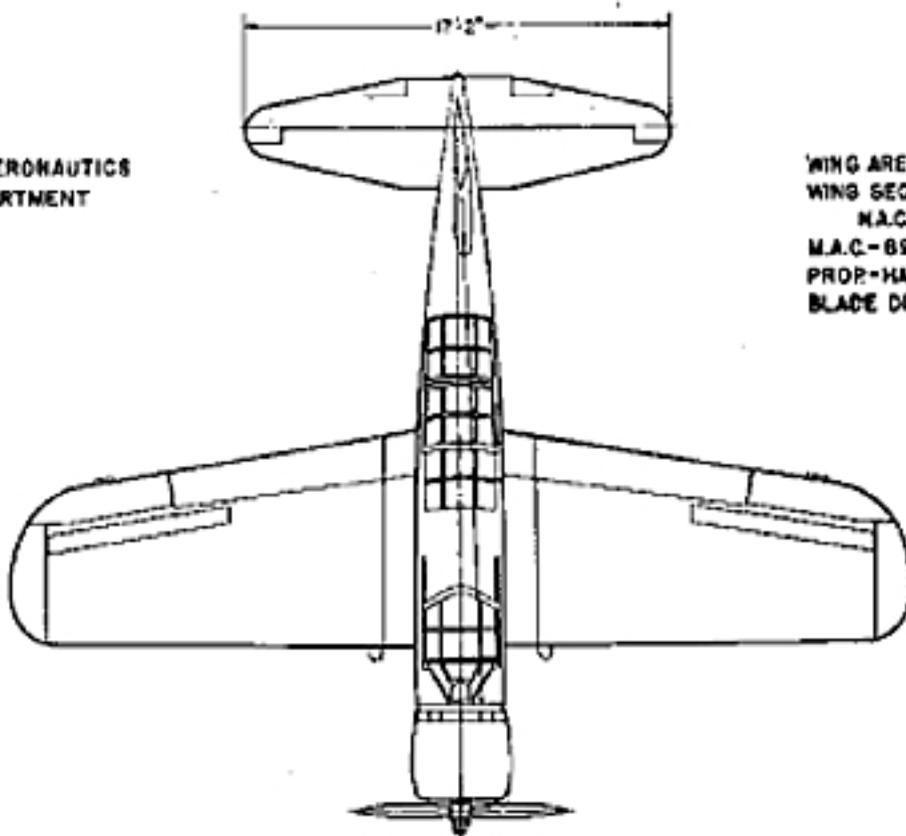


○ LOADING CONDITION COLUMN NUMBER



BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA-262 SQ. FT.
WING SECTION-
N.A.C.A 23015-230C9
M.A.C.-89.5°
PROP-HAMILTON STD. C.S.
BLADE DES. NO. 8187A-12



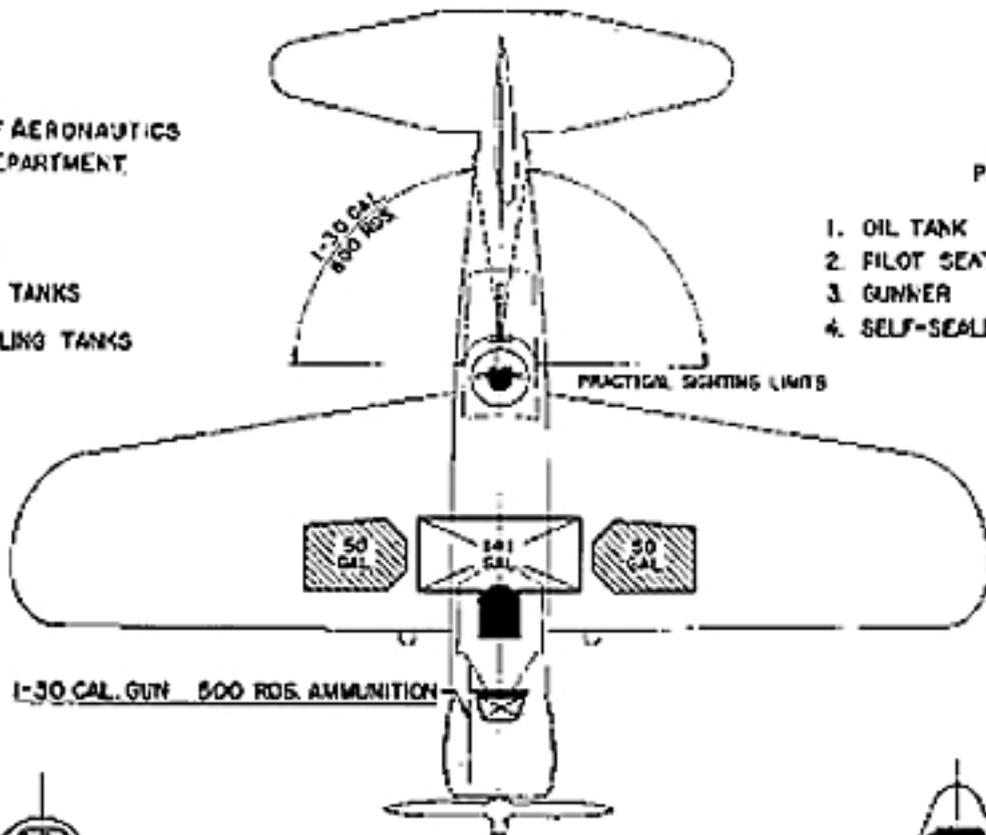
MODEL OS2U-3
AL80 OS2N-1

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

-  ARMOR PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS

PROTECTION

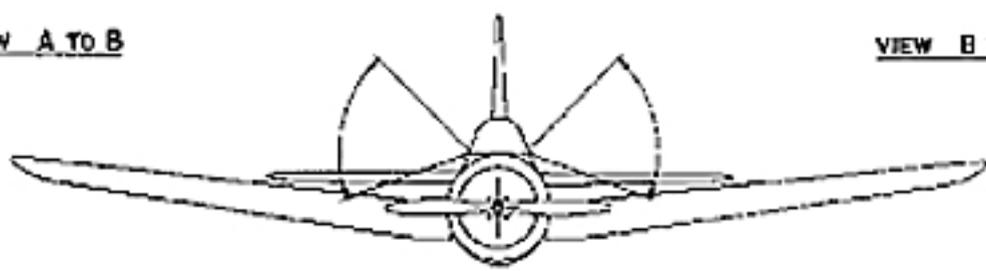
- | | |
|-----------------------|---------|
| 1. OIL TANK | 33 LBS |
| 2. PILOT SEAT | 131 LBS |
| 3. GUNNER | 56 LBS |
| 4. SELF-SEALING CELLS | 211 LBS |



VIEW A TO B



VIEW B TO C



VIEW C TO D



VIEW D

