

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2
LOADING CONDITION		UTILITY	RESCUE Two Rescue Cells
GROSS WEIGHT	LBS.	4896	5381
EMPTY WEIGHT	-ACTUAL- LBS.	3781	
FUEL/OIL	GALS.	100/8	100/8
FIXED GUNS/AMMUNITION		None	
FLEXIBLE GUNS/AMMUNITION		None	
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL
DISC LOADING	LBS/SQ.FT.	2.70	2.97
POWER LOADING	LBS/BHP.	10.87	11.96
V-MAX. SEA LEVEL	MPH.	112	106
MAX. RATE OF CLIMB S.L.	FT/MIN.	870	690
BEST CLIMBING SPEED -S.L.-	MPH.	53	54
VERT. RATE OF CLIMB -S.L.-	FT/MIN.	90	-
TIME-TO-CLIMB -5000 FT.- (2)	MIN.	6.9	9.0
TIME-TO-CLIMB -10000 FT.- (2)	MIN.	18.0	25.8
SERVICE CEILING	FT.	14100	11800
ABS. HOVERING CEILING	FT.	1400	--
MAX. RANGE / V-AVE. (3)	ST. MI./MPH.	256/80	230/80
MAX. ENDURANCE/V-AVE. (3)	HRS/MPH	3.5/50	3.3/53

NOTE:

ALL performance figures are based on standard atmospheric conditions with no wind. S.L. data do not include ground effect. All performance, particularly hovering and climb, are adversely affected by increased temperature and relative humidity. Hovering and climb performance are improved by ground effect (at altitudes less than one rotor diameter above the ground). Hovering and climb performance are also materially improved by light horizontal winds of the order of 5-10 mph.

ENGINE/ROTOR GEAR RATIO		P & W R-985-AN-1, or AN-5 (.0842)	
ENGINE RATING BHP/RPM/ALT.	NORMAL	TAKE-OFF	
	450/2300/S.L.	450/2300/S.L.	
	Ratings do not include the deduction of cooling fan power losses.		

TANKAGE IN GALLONS		OIL	FUEL	
AUX. FIXED	PROTECTED			WEIGHT EMPTY - Includes 56 lbs. of communicating equipment.
	UNPROTECTED	8	100	
	TOTAL - FIXED INTERNAL	8	100	
	DROPPABLE			
AUX. DROPPABLE	DROPPABLE			USEFUL LOAD - Includes crew of two, equipment, trapped fuel and oil, and fuel and oil. Column 2 Useful Load includes the weight of the two rescue cells (42 lbs each installed) and two survivors (200 lbs each)
	TOTAL	8	100	
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS			Performance is based on Calculations. Range and Endurance are based on engine requirement fuel consumption data increased 15% to conform with past experience.
	① BHP AT MAX. CRIT. ALT.			
	② AT MAX R/C			
	③ AT 1500 FT. ALTITUDE			

1 MAY 1945

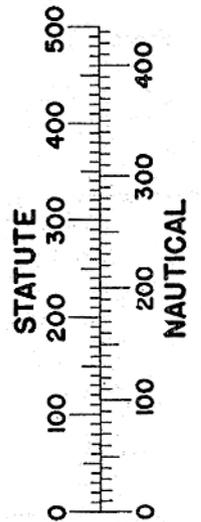
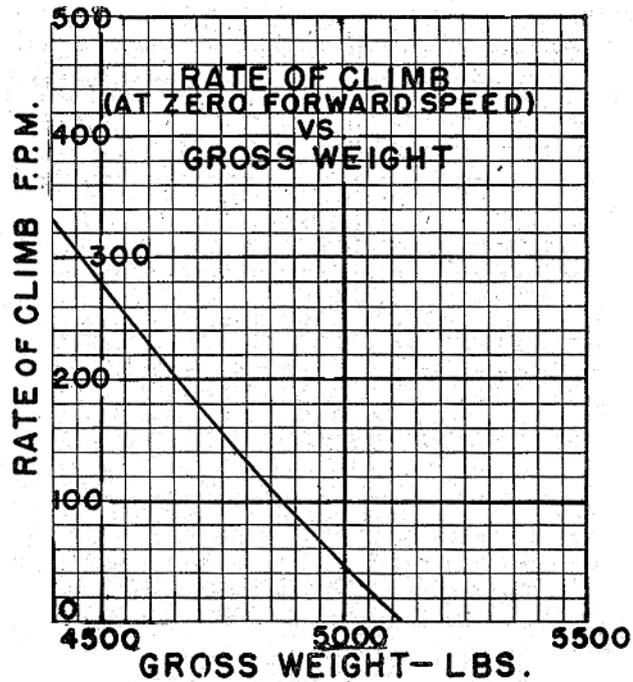
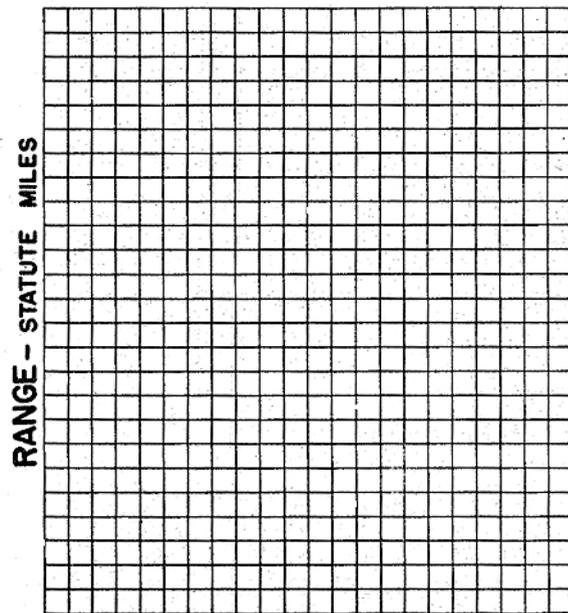
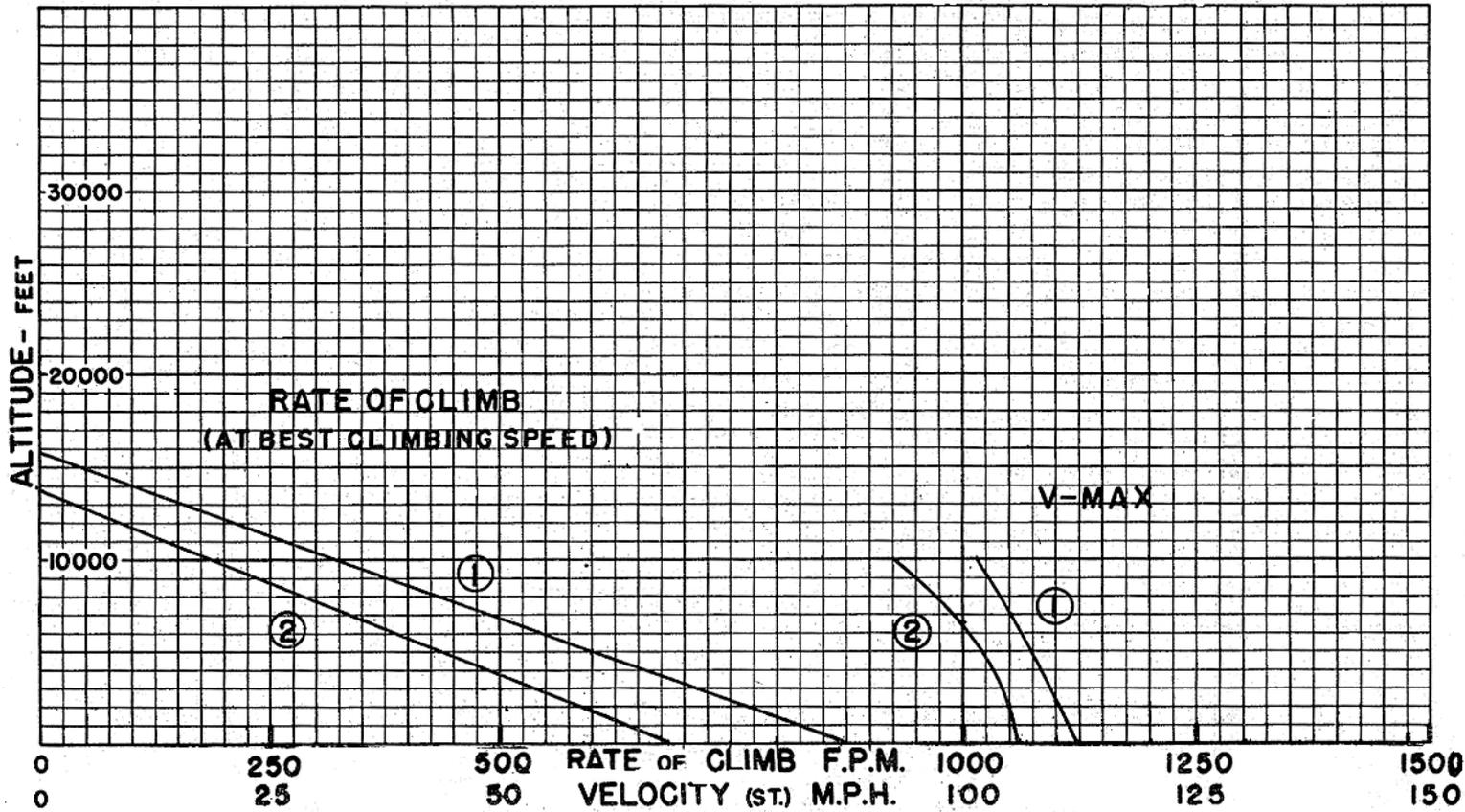
PAGE 2

MODEL-HO2S-1

AIRPLANE PERFORMANCE

NAVAER-1335B

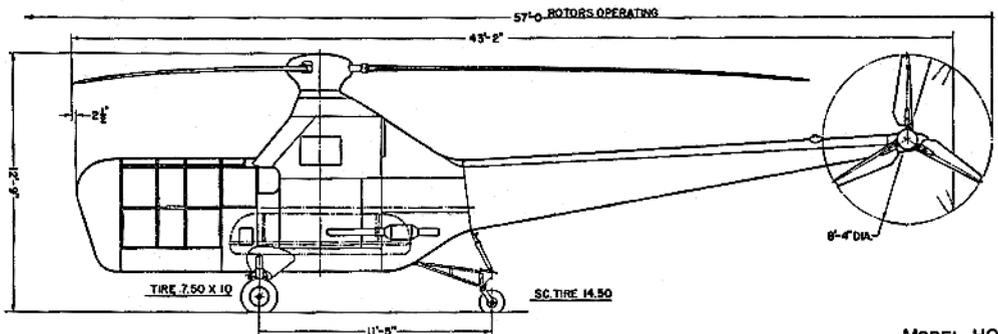
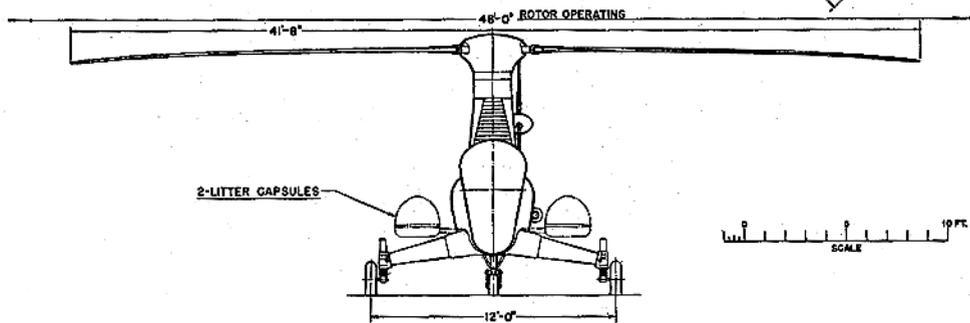
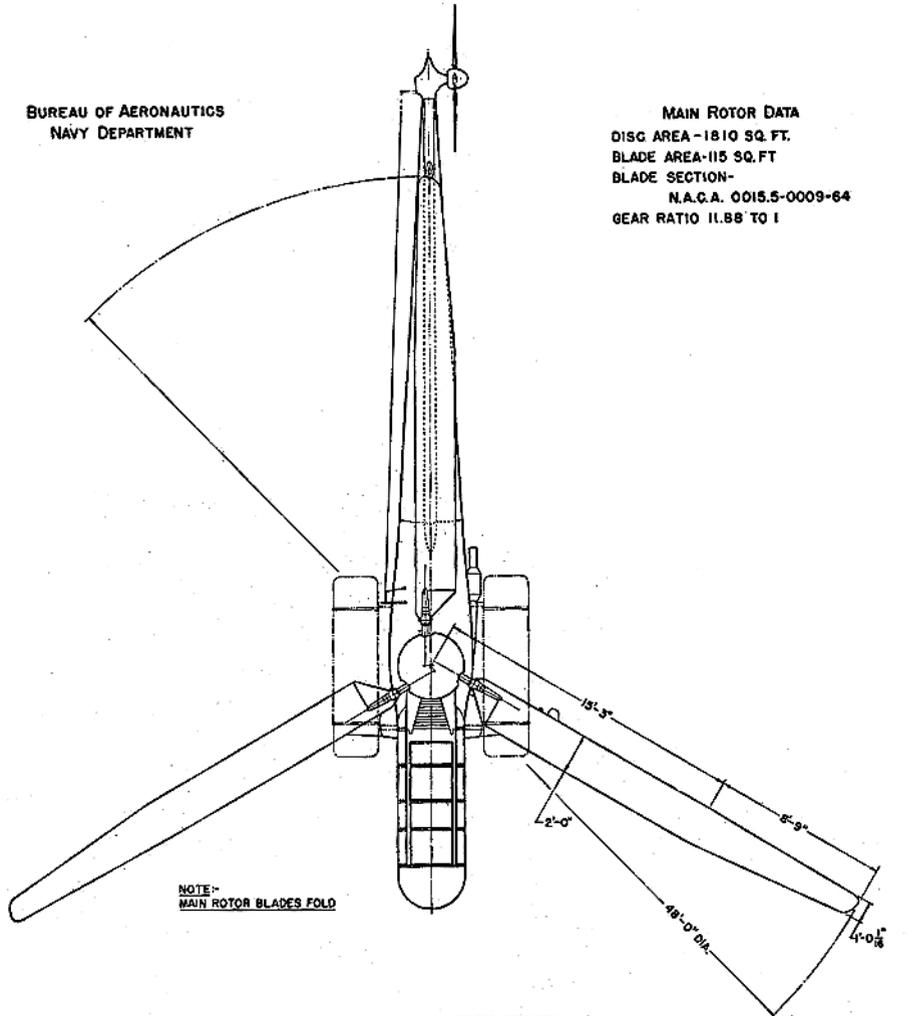
BUREAU OF AERONAUTICS, NAVY DEPT.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

MAIN ROTOR DATA
DISC AREA - 1810 SQ. FT.
BLADE AREA - 115 SQ. FT.
BLADE SECTION -
N.A.C.A. 0015.5-0009-64
GEAR RATIO 11.88 TO 1



MODEL H02S-1