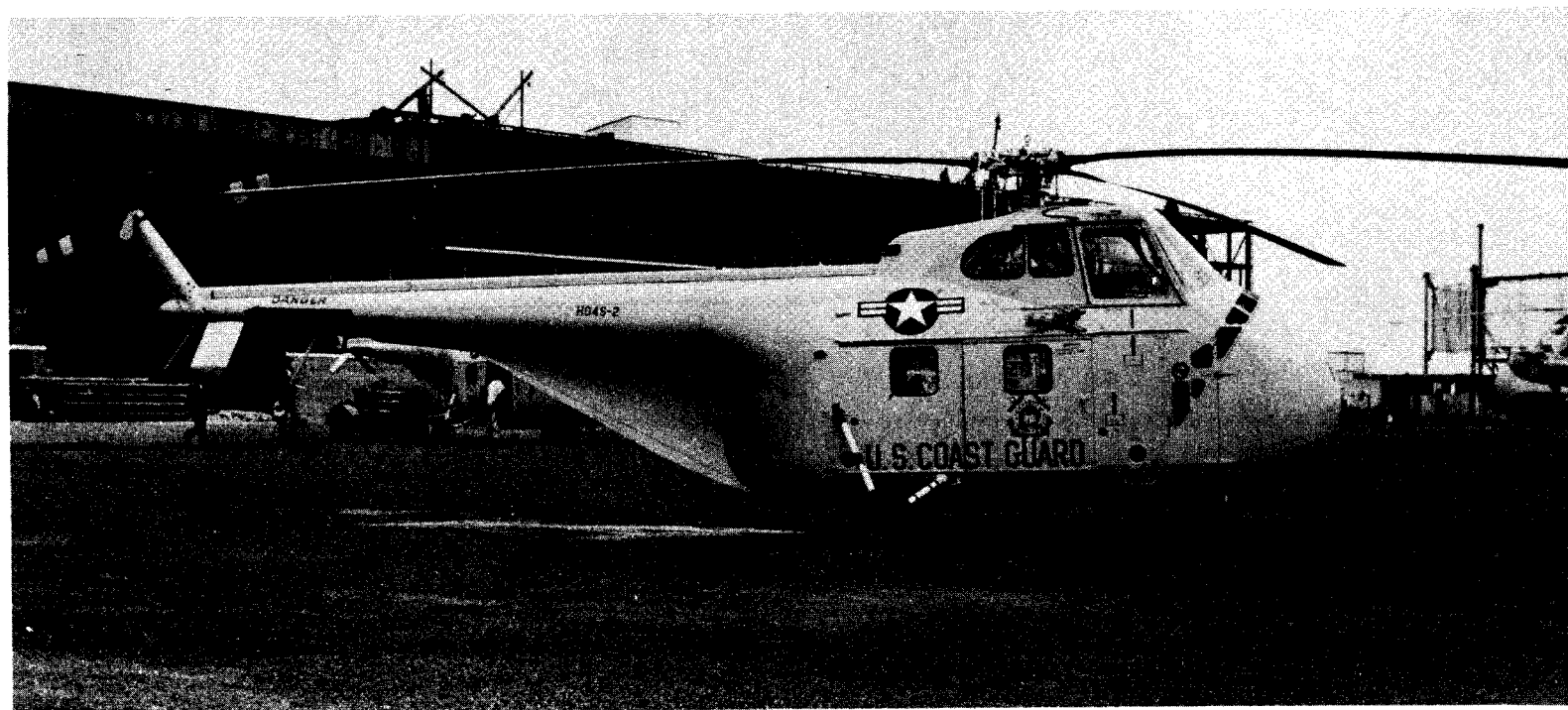


25

Standard Aircraft Characteristics NAVAER 1335A (REV. 1-49)



STANDARD AIRCRAFT CHARACTERISTICS

HO4S-2

SIKORSKY

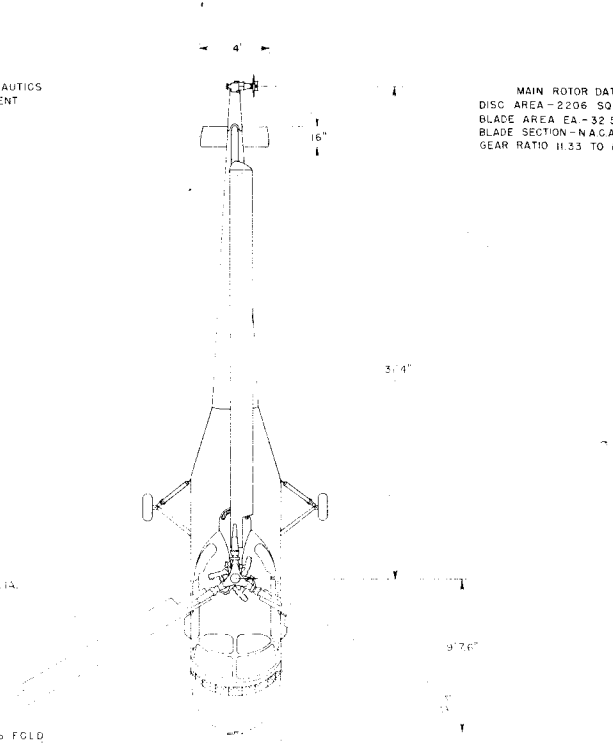
UNCLASSIFIED

RESTRICTED

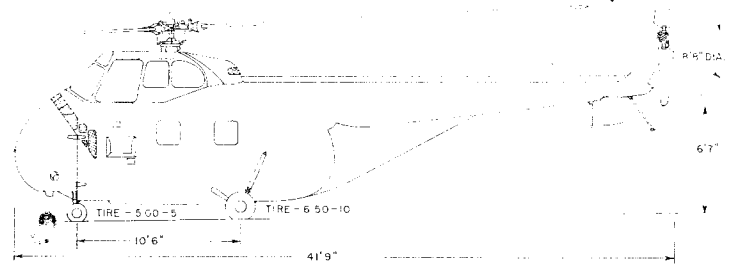
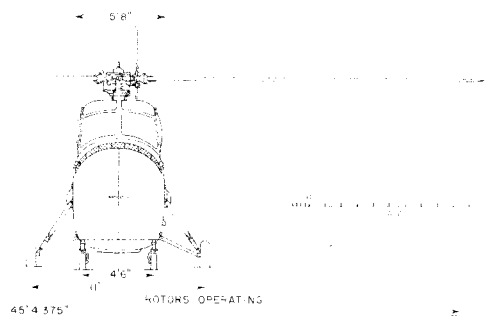
HO4S-2

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

MAIN ROTOR DATA
DISC AREA - 2206 SQ. FT.
BLADE AREA EA - 32.5 SQ. FT.
BLADE SECTION - NACA 0012
GEAR RATIO 11.33 TO 1



NOTE:
MAIN ROTOR BLADES FOLD



DECLASSIFIED

DESCRIPTIVE ARRANGEMENT

POWER PLANT			
NO. & MODEL.....(1) R-1340-57			
MFR.....Pratt and Whitney			
SUPERCH.....1 Stage, 1 Speed			
ROTOR GEAR RATIO.....0.0882			
TAIL ROTOR RATIO.....0.617			
RATINGS			
	Bhp ●	Rpm ●	Alt.
T. O.	600	2,250	S.L. to 6,200'
NORM.	550	2,200	S.L. to 8,000'
SPEC. NO. P&W 1066			

MISSION AND DESCRIPTION	
<p>The primary mission of the HO4S-2 helicopter is observation. It may also be used for search and rescue.</p> <p>Design features include engine mounted behind clamshell doors in nose, cabin location directly beneath main rotor, both main and auxiliary rotor blades of all metal construction, anti-coning blade restrainers for shipboard operation and non-scuffing quadricycle type landing gear.</p> <p>The HO4S-2 differs from the HO4S-1 in having an engine of higher critical altitude. The HO4S-2 also includes structural provisions for the incorporation of the R-1300-3 engine at a later date.</p> <p>All operational HO4S-1 models have been converted to HO4S-2 helicopters.</p>	
DEVELOPMENT	
First Flight -- October 1951 Service use to start -- November 1951	

WEIGHTS		
Loadings	Lbs.	L.F.
EMPTY.....	4,975.....	
BASIC.....	5,151.....	
DESIGN.....	7,100.....	2.67
MAX.T.O.....	8,070.....	2.12
MAX.LAND.....	8,070.....	
All weights are estimated.		

ACCOMMODATIONS	
OBSERVATION	
Crew.....	2
SEARCH AND RESCUE	
Crew.....	2
Litters.....	6
Door Size.....	48" x 48"
Hoist Capacity.....	400 lbs.
MAX. CARGO LOAD.....2,000 lbs.	

FUEL AND OIL		
Gals.	No. Tanks	Location
185	1.	Fuselage
FUEL GRADE.....91/98		
FUEL SPEC.....MIL-F-5572		
OIL		
CAPACITY (Gals.).....9.25		
GRADE.....1100/1120		
SPEC.....MIL-O-6082		

DIMENSIONS	
DISC AREA.....	2,206 sq. ft.
BLADE DIA.....	53' - 0"
BLADE AREA.....	98 sq. ft.
LENGTH*.....	41' - 9"
HEIGHT.....	14' - 0"
TREAD.....	11' - 0"
STABILIZER AREA.....	6 sq. ft.
*Blades Folded	

ELECTRONICS	
VHF.....	AN/APN-1
INTERPHONE.....	AN/AIC-4A
RADIO ALTIMETER.....	AN/APN-1
RANGE RECEIVER.....	R-23A/ARC-5
HOMING RECEIVER.....	AN/ARR-2A
IFF.....	AN/APX-6

27

Standard Aircraft Characteristics NAVAER-1335C

REPRODUCED FROM ORIGINAL FILE

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) OBSERVATION	(2) SEARCH AND			
		2 Crew	RESCUE			
			2 Crew and 6			
			Litter Patients			
TAKE-OFF WEIGHT	lb.	6,503	7,276			
Fuel	lb.	1,110	540			
Payload	lb.	--	1,140			
Disc loading	lb./sq.ft.	3.0	3.3			
Vertical rate of climb at S.L. (A/B)	fpm.	230/590	--			
Absolute hovering ceiling (A/B)	ft.	4,900/8,000	--			
Max. rate of climb at S.L. (A)	fpm.	1,280	820			
Service ceiling (100 fpm) (A)	ft.	15,600	12,000			
Speed at S.L. (A)	kn.	96	86			
Max. speed/altitude (A)	kn./ft.	96/S.L.	86/S.L.			
Combat range	n.mi.	360	147			
Average cruising speed	kn.	72	70			
Cruising altitude	ft.	1,500	1,500			
Combat radius	n.mi.	--	--			
Average cruising speed	kn.	--	--			
Maximum endurance	hrs.	6.3	2.5			
Average cruising speed	kn.	50	50			
Cruising altitude		1,500	1,500			

NOTES

- (A) Normal power
(B) Take-off power

Performance is based on flight test of the HO4S-1 and HRS-1 helicopters.

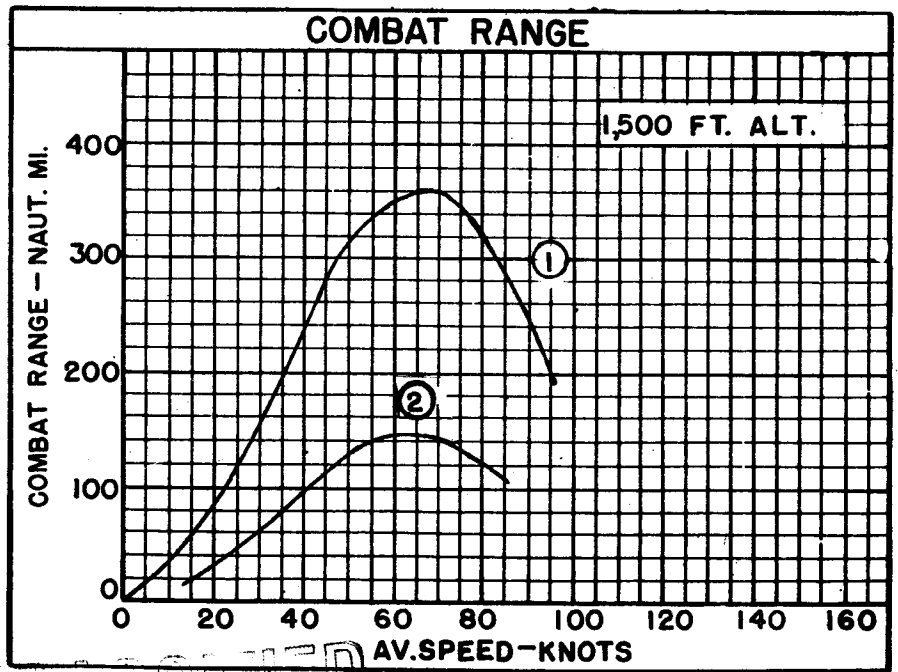
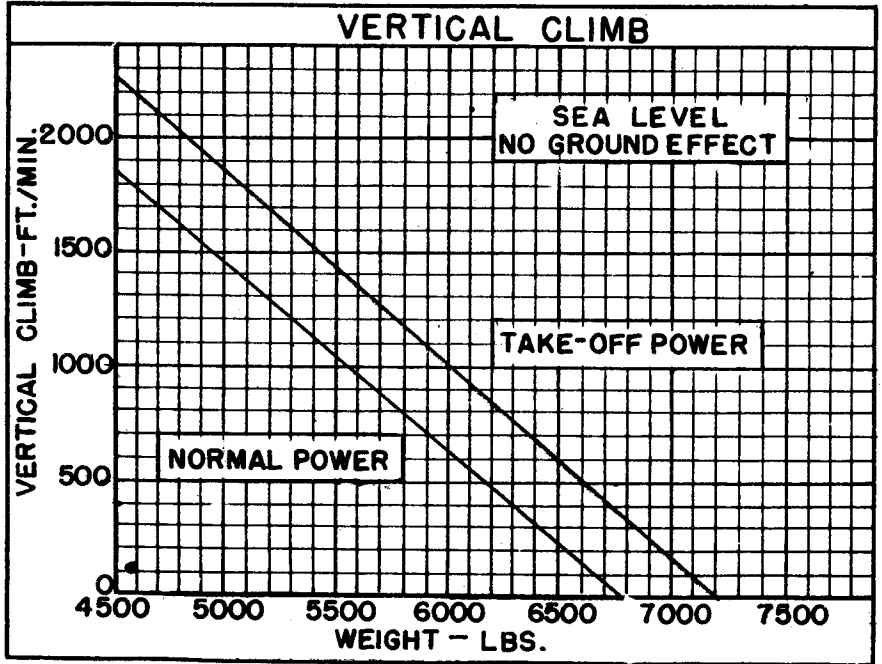
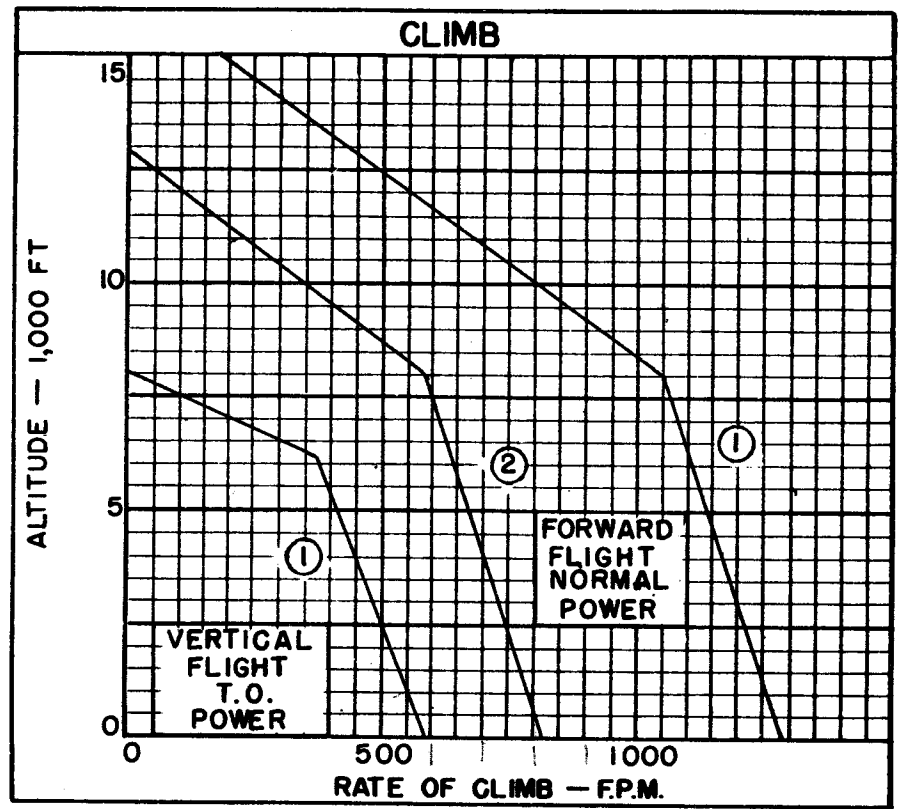
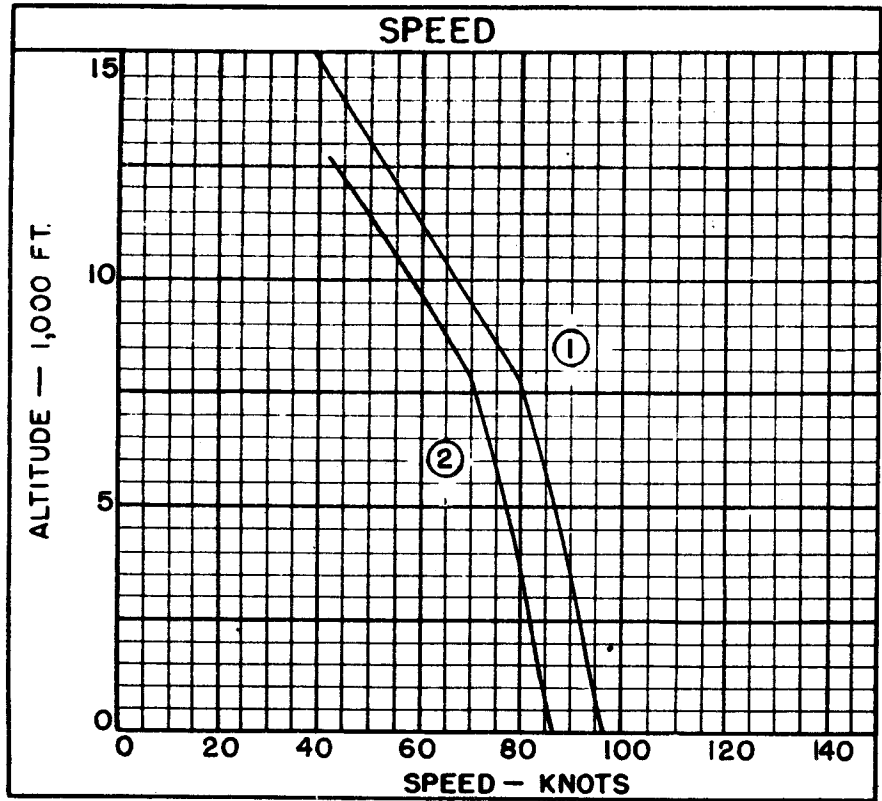
Sea level data do not include ground effect.

Range and endurance are based on engine specification fuel consumption data increased by 5% and allowing fuel for warm-up and take-off (5 minutes at NRP) and a 10% fuel reserve. 2200 Rpm is used at all speeds.

UNCLASSIFIED

5

Standard Aircraft Characteristics NAVAER 1335E (REV. 2-50)



○ LOADING CONDITION COLUMN NUMBER