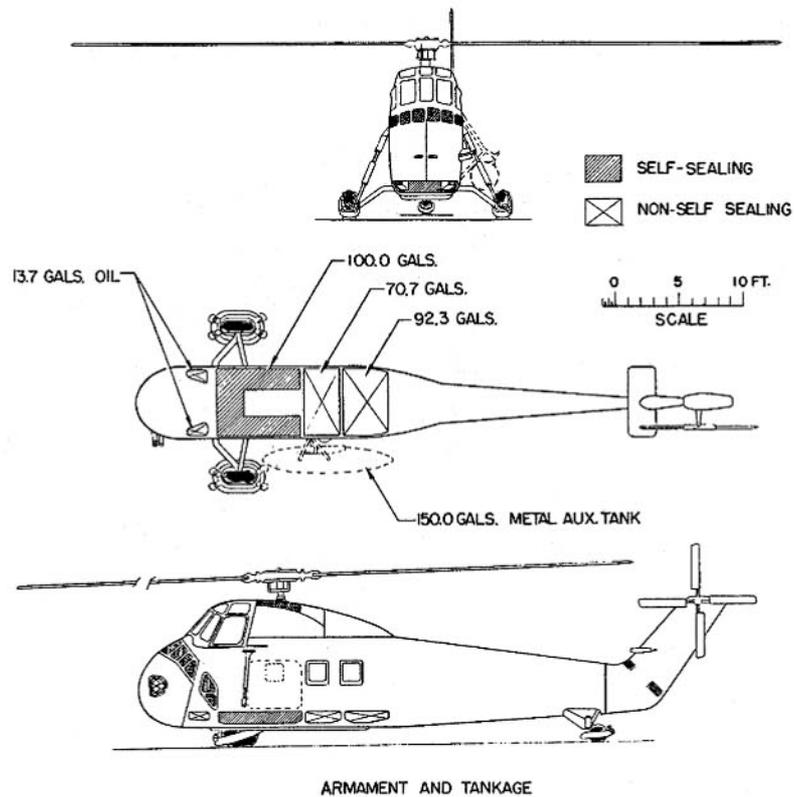
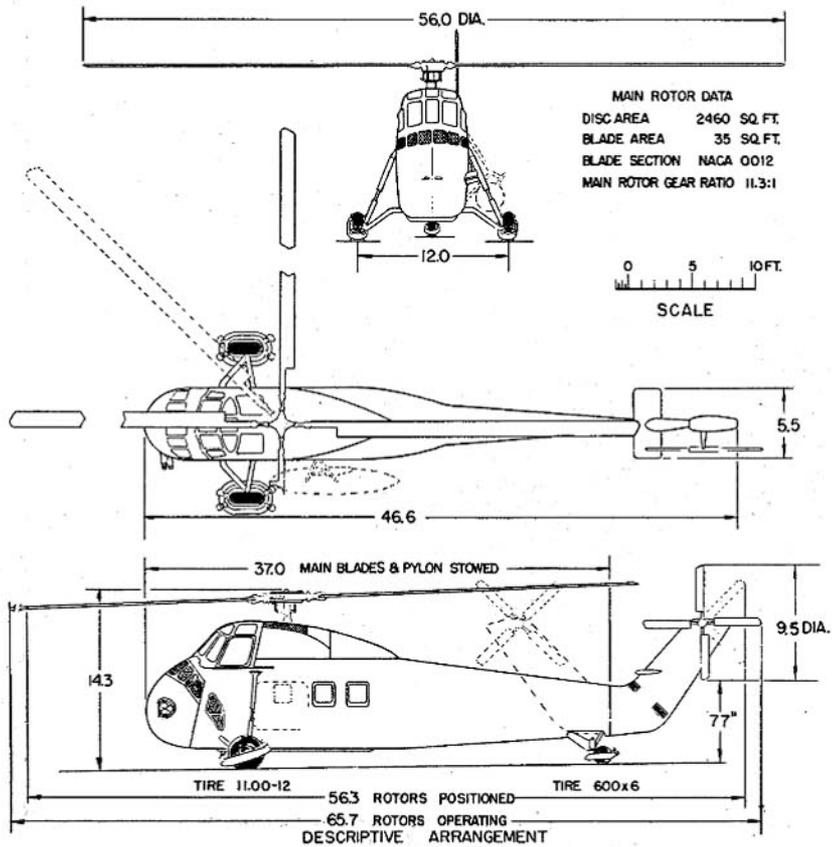




STANDARD AIRCRAFT CHARACTERISTICS

HUS-1A

SIKORSKY



POWER PLANT

NO & MODEL..... (1)R-1820-84
 MFR WRIGHT
 SUPERCH 1 STAGE, 1 SPEED
 ROTOR GEAR RATIO 11.3 to 1
 TAIL ROTOR RATIO 1.9 to 1

RATINGS

	BHP	RPM	ALT	TIME
T. O.	1525	2800	700'	5 Min.
MIL.	1425	2700	2400'	30 Min.
NORM.	1275	2500	3500'	Cont.

ENGINE SPEC. N-895
 Of 26 Nov 1952

ACCOMMODATIONS

Grew (Pilot & Co-pilot)..... 2
 Troops12
 or
 Litters 8

CARGO

Internal Capacity 4000 lbs.
 External Capacity 5000 lbs.
 (on sling)
 Cargo Compartment:
 Length 13' 7"
 Width 4' 11"
 Height 6' 0"

MISSION AND DESCRIPTION

The mission of this helicopter is to provide the Fleet with a helicopter capable of extended over-water utility flights without escort.

The HUS-1A is a single engine helicopter using a single main lifting rotor and a single anti-torque tail rotor. Both rotors are four bladed and of all metal construction. A "Do-nut" type emergency flotation gear is attached to the main and tail landing gear to facilitate emergency landing on water. Flotation gear is foldable on the aircraft when not in use. A 150 gallon auxiliary jettisonable fuel tank is provided. Automatic stabilization equipment is provided. The tail pylon and main rotor blades fold, permitting stowage on all cruiser decks and carrier elevators. A cargo sling of 5000 pounds capacity is provided for externally transporting bulky cargo, and a hydraulic hoist of 600 pounds capacity is available for airborne loading and rescue.

DEVELOPMENT

First Flight March 1957
 Service Use April 1957

DIMENSIONS

ROTOR 56' 0"
 DISC AREA 2460 sq. ft.
 *LENGTH 37' 0"
 HEIGHT (MAX.) 15' 8"
 TREAD..... 12' 0"
 STABILIZER AREA 12.4 sq. ft.

* ROTOR AND TAIL PYLON FOLDED

WEIGHTS

LOADING	LBS.	Lt.Ft.
Empty.....	8697
Basic.....	9091
Design.....	12166	2.50
Max. T.O.....	13000	2.34
Max. Landing.....	13000	2.34

All weights are actual

FUEL AND OIL

No. Tanks	Gals.	Location
3	263	FUSELAGE
1	150	EXTERNAL (DROP)

FUEL GRADE 115/145
 FUEL SPEC F-5572-1

OIL

Capacity (Gals).....13.7
 Grade.....1065/1100
 Spec. MIL-D-6082A

ELECTRONICS

UHF RADIO SET AN/ARC-55
 MHF..... AN/ARC-39
 ICS AN/AIC-4A
 RADAR ALTIMETER AN/APN-117
 FINDER GROUP..... AN/ARA-25
 RADAR IS SET..... AN/APX-6
 CODER GROUP..... AN/APA-89
 ADF AN/ARN-59
 TACAN..... AN/ARN-21
 FM RADIO SET..... AN/ARC-44
 COURSE INDICATOR ID-250/ARN
 VIDEO CODER KY-81/APA-89

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) Utility Transport	(2) Cargo Transport	(3) Ferry Range		
TAKE-OFF WEIGHT	lb.	11,965	13,000	11,793		
Fuel	lb.	2,250	2,478	2,478		
Payload	lb.	400	1,207	---		
Disc loading	lb./sq.ft.	4.86	5.29	4.79		
Vertical rate of climb at S.L. (B)	fpm.	1030	510	1120		
Absolute hovering ceiling (B)	ft.	5200	2600	5700		
Max. rate of climb at S.L. (A)	fpm.	1400	1150	1450		
Service ceiling (100 fpm) (A)	ft.	13300	10900	13800		
Speed at S.L. (A)	kn.	117	115	118		
Max. speed/altitude (A)	kn./ft.	119/2000	115/S.L.	120/2000		
Combat range	n.mi.	422	432	477		
Average cruising speed	kn.	86	85	86		
Cruising altitude	ft.	S.L.	S.L.	S.L.		
Combat radius	n.mi.	202	208	---		
Average cruising speed	kn.	85	84	---		

NOTES

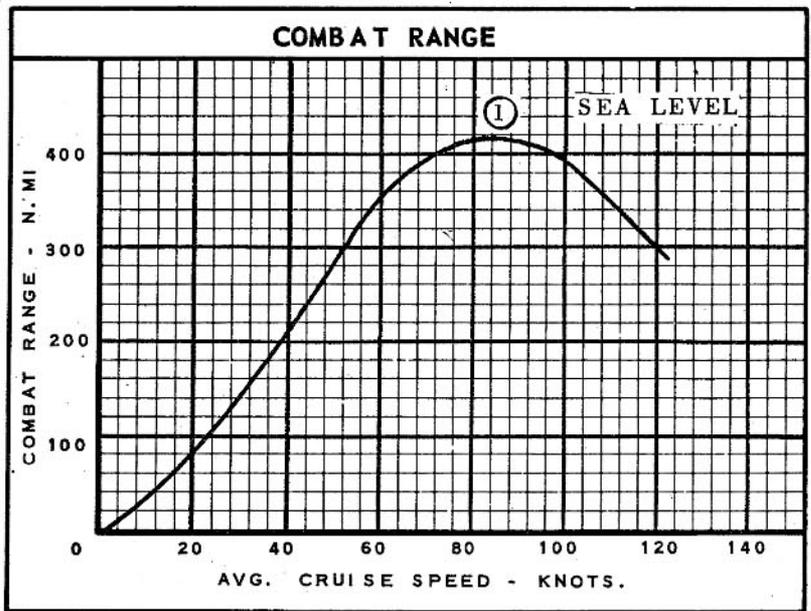
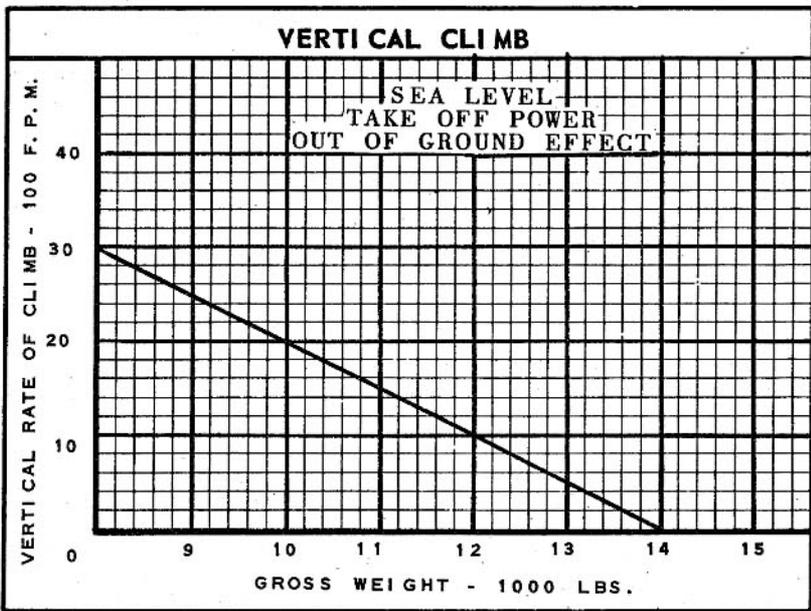
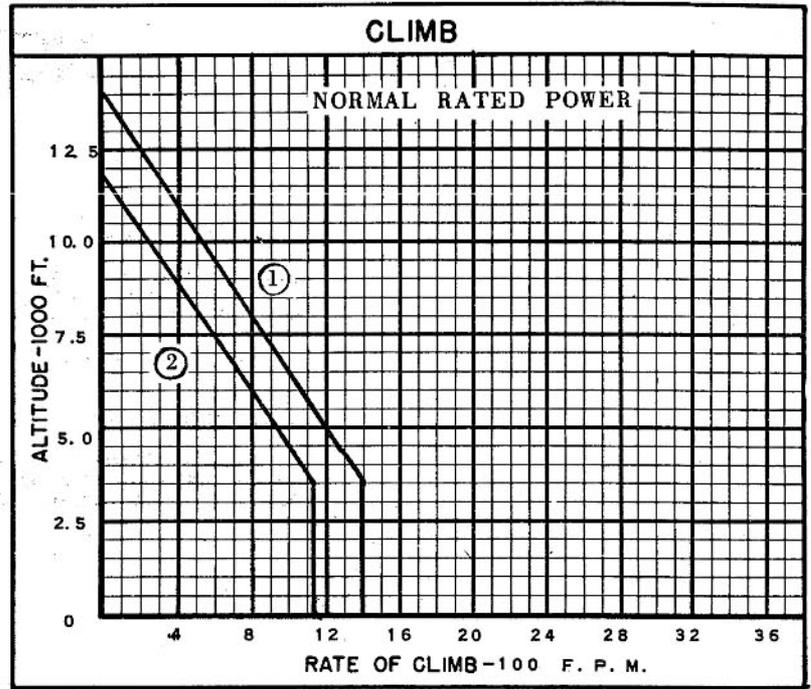
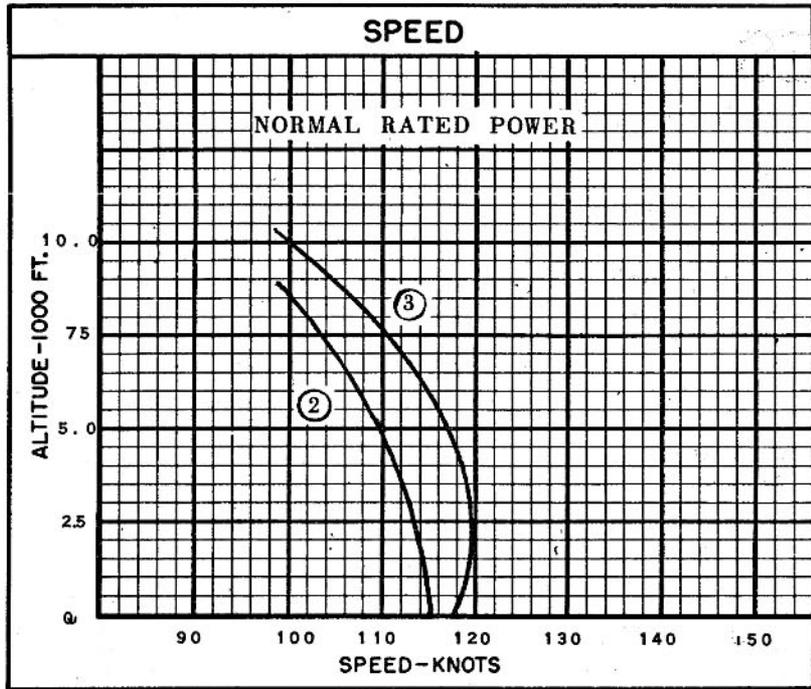
- (A) NORMAL RATED POWER
 (B) TAKE-OFF POWER

PERFORMANCE BASIS: NATESTCEN Evaluation of HSS-1 and HUS-1A and contractor's Flight Test.

RANGE AND RADIUS are based upon NATESTCEN fuel consumption data..

All performance is out of ground effect and for standard atmospheric conditions.

Standard Aircraft Characteristics NAVAER 1335E (Rev. 1-55)



○ LOADING CONDITION COLUMN NUMBER

NOTES

COMBAT RADIUS MISSION:

Warm-up and Take-off: 10 minute at Normal Rated Power
Cruise: Out at sea level at speed for best range
Land: At remote area, no fuel used, no distance gained
Cruise: Back at sea level at speed for best range
Reserve: 10% of initial fuel load

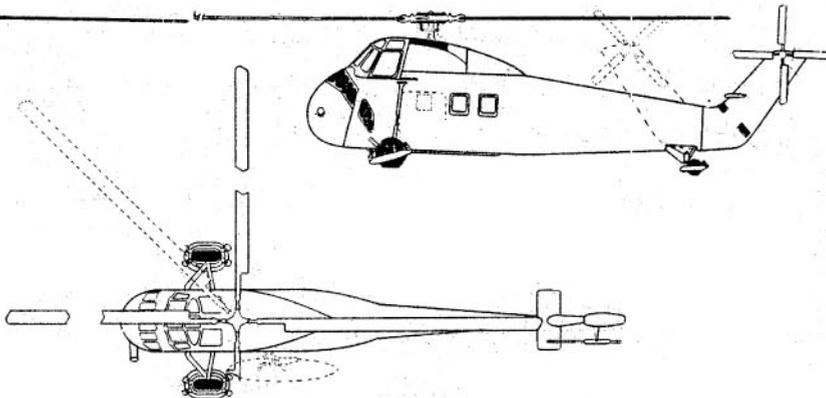
COMBAT RANGE MISSION:

Warm-up and Take-off: 5 minute at Normal Rated Power
Cruise: At sea level at speed for best range
Reserve: 10% of initial fuel load

CHARACTERISTICS SUMMARY

UTILITY

HUS-1A



DISC AREA 2460 sq. ft.
 ROTOR DIA. 56' - 0"

*LENGTH 37' - 0"
 HEIGHT 15' - 8"

*Rotor and Tail Pylon Folded

AVAILABILITY			PROCUREMENT				
NUMBER AVAILABLE			NUMBER DELIVERED				
			IN FISCAL YEARS				
ACTIVE	RESERVE	TOTAL					

STATUS

First Flight March 1957
 Service Use April 1957

ENGINES

(1) Wright R-1820-84

	BHP	RPM	ALT
T.O.	1525	2800	700
M.L.	1425	2700	2400
NORM.	1275	2500	3500

FEATURES

Crew - 2
 All metal rotor blades
 Folding rotor & tail pylon
 Seating - 12 Troops
 Automatic Stabilization Equipment
 5000# Capacity ext.
 Cargo Sling

ACCOMMODATIONS

Crew 2
 Troops 12
 or
 Litters 8

NAVAER 1519 A (REV. 1-49)

CHARACTERISTICS SUMMARY

BASIC MISSION

HUS-1A

Warm-up and Take-off; 5 min. at NRP
 Cruise out: at speed for best range at sea level
 Reserve: 10% of initial fuel

PERFORMANCE

ENDURANCE	RANGE	SPEED
6.8 hours	432 naut. mi.	115 knots at Sea Level
50 knots avg.	85 knots avg.	knots at ft.
Sea Level	Sea Level	Normal Gross Weight Normal Power
FORWARD FLIGHT CLIMB	SERVICE CEILING	HOVERING CEILING
1150 ft./min.	10,900 ft.	2600 ft.
Sea Level, N. G. Wt., Normal Power	100 ft./min., N. G. Wt., Normal Power	N. G. Wt., T.O. Power out of ground effect
		ft. N. G. Wt., Power in ground effect
LOAD	WEIGHTS	VERTICAL CLIMB
Fuel 2478 gal.	Empty 8697 lbs.	510 ft./min.
Internal 1578 lbs.	Normal Gross 13,000 lbs.	Sea Level, N. G. Wt., Take-Off Power
External 900 lbs.	Overload 13,000 lbs.	
Payload (Cargo) 1207 lbs.		

NOTES

Performance Basis: NATC evaluation of HUS-1A
 Range and endurance based on flight test fuel consumption data
 Performance out of ground effect
 This is HUS-1 configured with long range fuel tanks and flotation gear
 Reason for reissue: Availability of flight test data