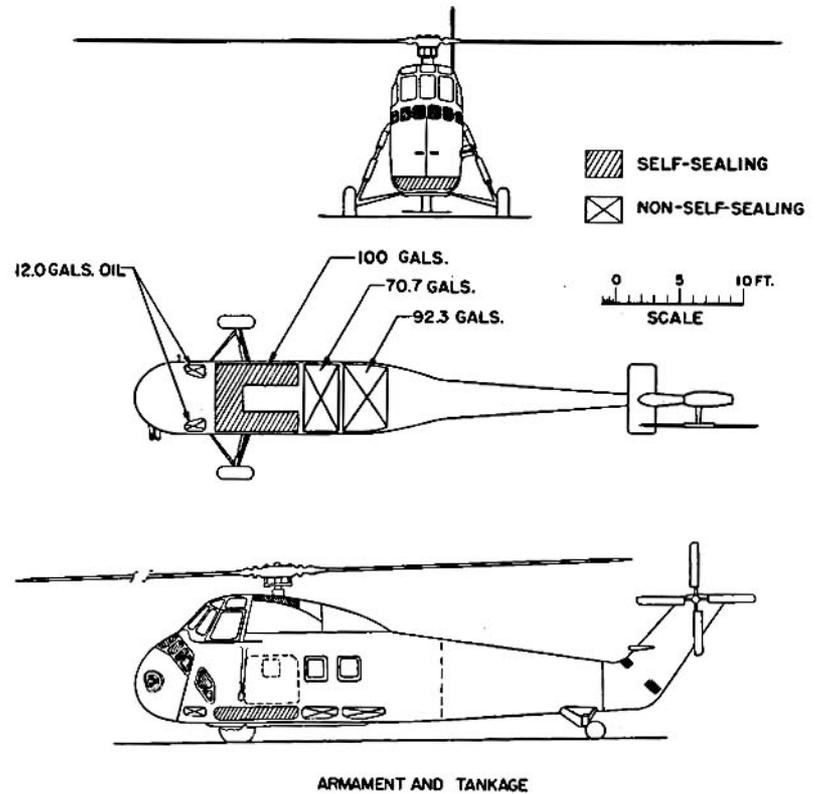
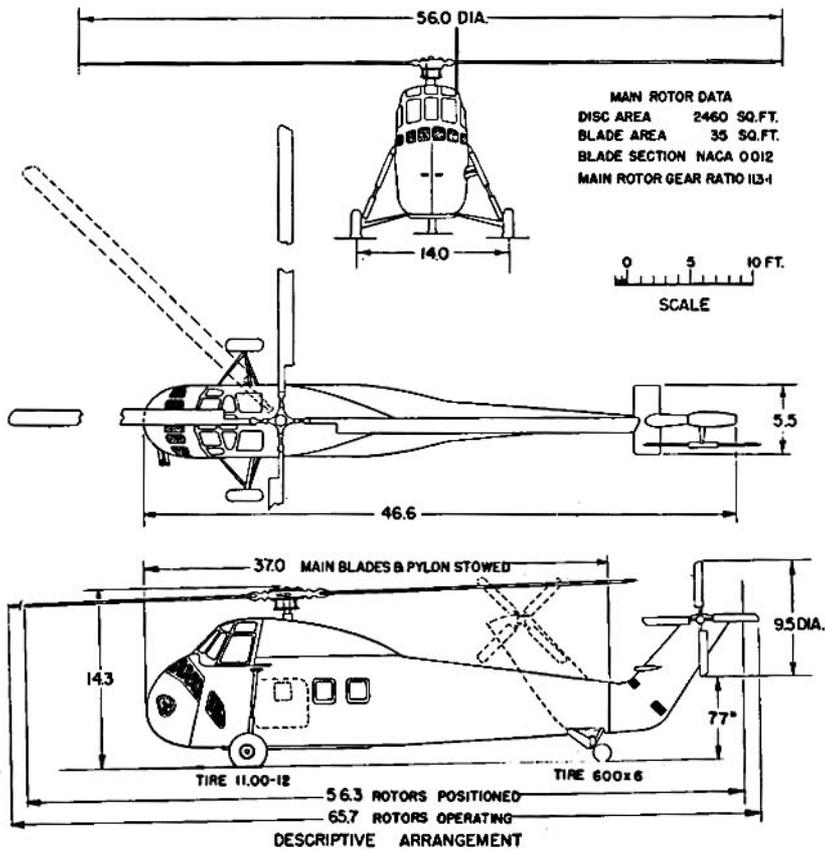




STANDARD AIRCRAFT CHARACTERISTICS

HUS-1

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

Crew (Pilot & Co-Pilot) 2
 Troops 12
 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 principal mission of this helicopter is to transport general cargo and large aircraft maintenance spare components. The HUS-1 is a four bladed all metal main rotor type helicopter with a four bladed all metal automatic torque compensating tail rotor. The engine is mounted in the nose facing rearward inclined 35° from the horizontal. This helicopter incorporates a dual control system of the conventional stick and rudder pedal type, supplemented by a collective pitch control lever synchronized with the throttle to provide constant rotor speed. Automatic stabilization equipment is provided capable of maneuvering and maintaining heading, altitude, and attitude established by the pilot under stick and pedal free conditions. The tail pylon and main rotor blades fold without disconnecting transmission or controls, thus permitting stowage on the smallest carrier or cruiser deck elevator. The fixed type landing gear consists of a main two wheel alighting gear and a tail wheel.

DEVELOPMENT

First Flight January 1957
 Service Use January 1957

DIMENSIONS

ROTOR DIA 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	LEB	L.F.
EMPTY	8052
BASIC	8231
DESIGN	11398 2.67
MAX T.O.	13300 2.29
MAX LANDING	13300 2.29

All weights are actual

FUEL AND OIL

NO. TANKS	GALS.	LOCATION
3	263	Fuselage

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

OIL

Capacity (Gals) 12.4
 Grade 1065/1100
 Spec. MIL-L-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 ID 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) Cargo Transport	(2) Troop Transport	(3) Combat Evacuation	(4) Cargo Transport (Overload)	(5) Ferry Range
TAKE-OFF WEIGHT	lb.	11256	13032	10313	13300	10299
Fuel	lb.	1230	1578	1578	624	1578
Payload	lb.	1335	2700	1520	4000	—
Disc loading	lb./sq.ft.	4.75	5.30	4.20	5.41	4.18
Vertical rate of climb at S.L.	fpm.	1400	490	1880	360	1900
Absolute hovering ceiling (B)	ft.	7000	2500	9600	1900	9700
Max. rate of climb at S.L. (B)	fpm.	1630*	1170	1900	1110	1910
Service ceiling (100 fpm) (A)	ft.	14400	10600	16500	10000	16600
Speed at S.L. (A)	kn.	123	117	128	117	128
Max. speed/altitude (A)	kn./ft.	123/S.L.	117/S.L.	128/S.L.	117/S.L.	128/S.L.
Combat range (A)	n.mi.	213	237	267	79	302
Average cruising speed	kn.	96	98	96	98	93
Cruising altitude	ft.	1500	1500	1500	1500	1500
Combat radius	n.mi.	101	123	133	37	—
Average cruising speed (C) (D)	kn/ kn.	96/93	98/93	95/44	98/92	—
Cruising altitude	ft.	1500	1500	1500	1500	—

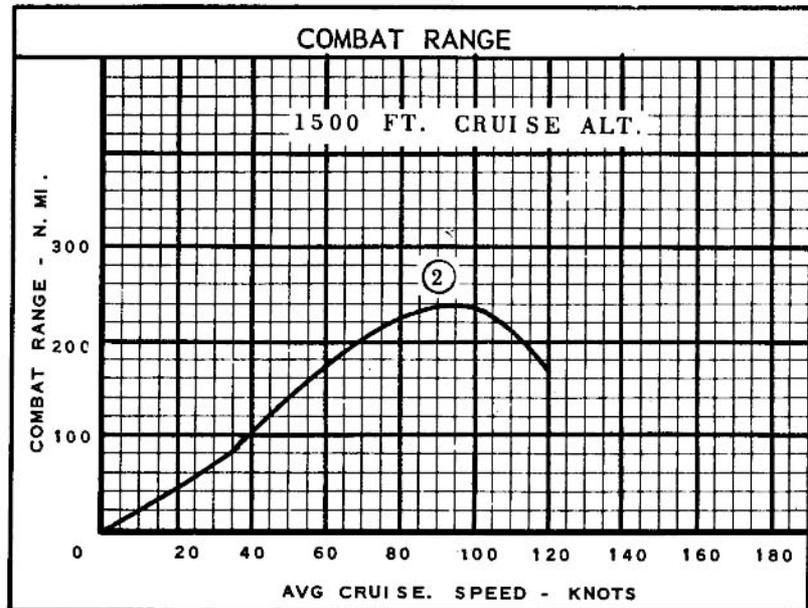
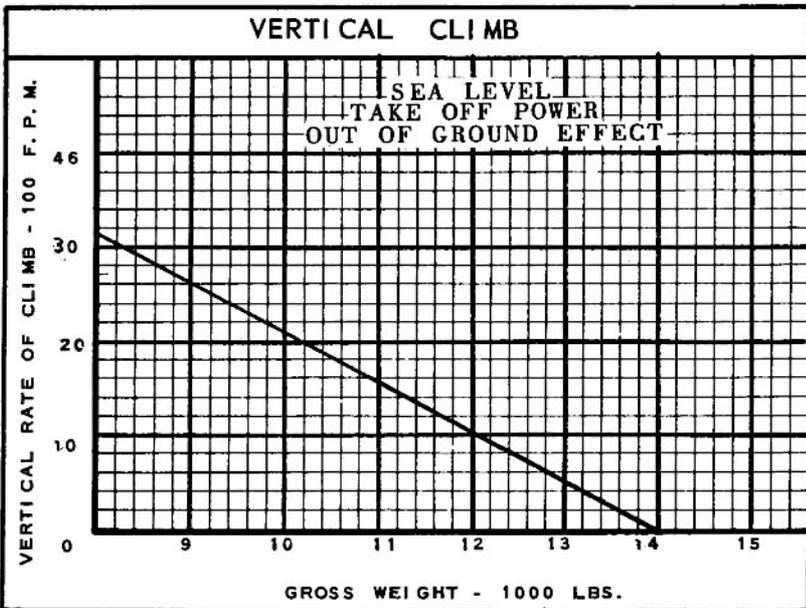
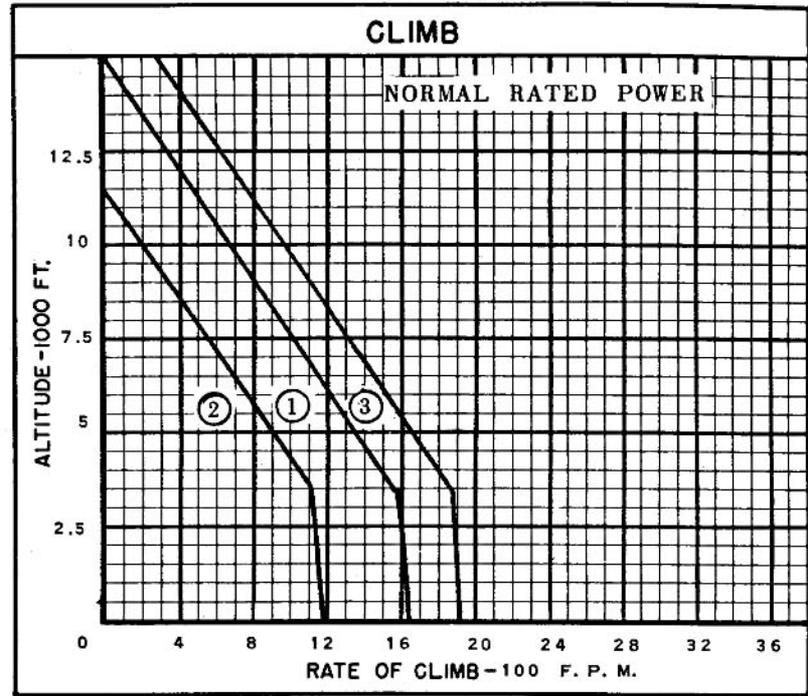
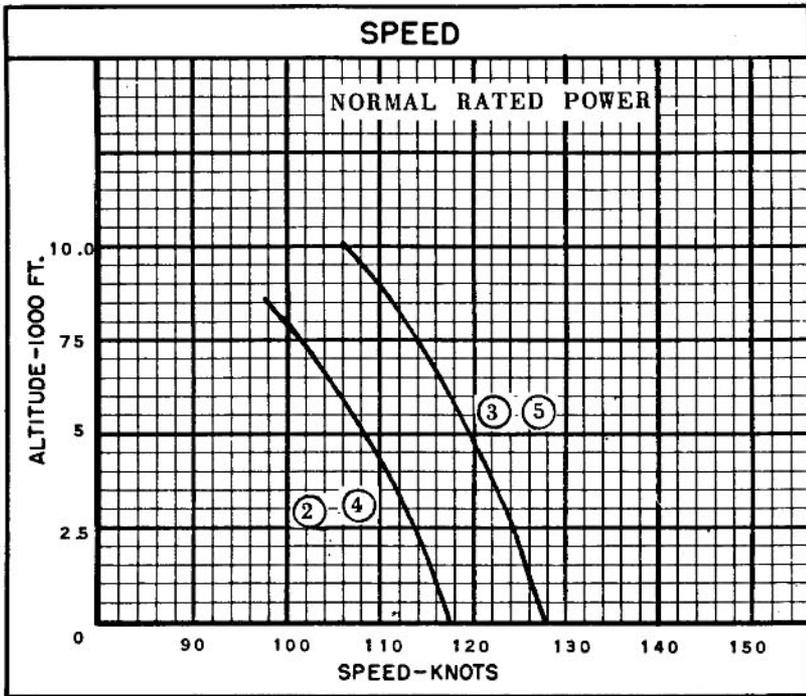
NOTES

- (A) NORMAL RATED POWER
- (B) TAKE-OFF POWER
- (C) AVERAGE CRUISE SPEED OUTGOING
- (D) AVERAGE CRUISE SPEED RETURNING

PERFORMANCE BASIS: NATESTCEN Evaluation of HSS-1 and HUS-1 helicopters.

RANGE AND RADIUS are based upon NATESTCEN fuel consumption data.

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



○ LOADING CONDITION COLUMN NUMBER

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

NOTES

COMBAT RADIUS MISSION:

Warm-up and Take-off: 10 Minute at Normal Rated Power
Climb: To 1500 feet at Normal Rated Power
Cruise: At long range speed to advanced area
Land: Deposit Cargo or Discharge Troops
Climb: To 1500 feet at Normal Rated Power
Cruise: Back to base at speed for best range
Reserve: 10% of initial fuel load

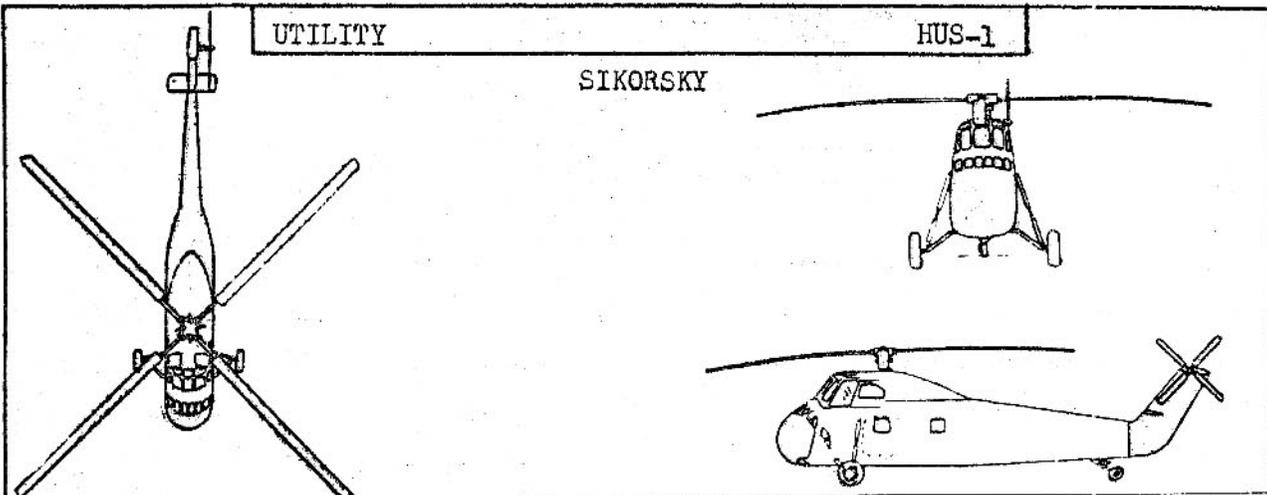
EVACUATION MISSION:

Warm-up and Take-off: 10 Minute at Normal Rated Power
Climb: To 1500 feet at Normal Rated Power
Cruise: At long range speed to advanced area
Land: Pick up evacuees (8)
Climb: To 1500 feet at Normal Rated Power
Cruise: Back to base 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
Climb: To 1500 feet at Normal Rated Power
Cruise: At speed for best range
Reserve: 10% of initial fuel load

CHARACTERISTICS SUMMARY



UTILITY

HUS-1

SIKORSKY

DISC AREA 2460 ft.²
 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	January 1957
Service Use	January 1957

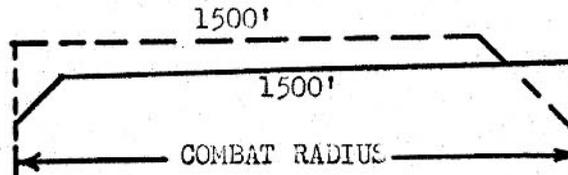
ENGINES			
(1) Wright R-1820-84			
	<u>BHP</u>	<u>RPM</u>	<u>ALT</u>
T.O.	1525	2800	700
M.L.	1425	2700	2400
NORM.	1275	2500	3500

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-1


PERFORMANCE

RADIUS	RANGE	SPEED
123 naut. mi.	237 naut. mi.	117 knots at S.L.
95 knots avg.	98 knots avg.	knots at ft.
1500 ft. alt.	1500 ft. alt.	Normal Gross Weight Normal Power
FORWARD FLIGHT CLIMB	SERVICE CEILING	HOVERING CEILING
1170 ft./min. Sea Level, N. G. Wt., Normal Power	10,600 ft. 100 ft./min., N. G. Wt., Normal Power	2500 ft. N. G. Wt., Take-Off Power out of ground effect
		ft. N. G. Wt., Power in ground effect
LOAD	WEIGHTS	VERTICAL CLIMB
Fuel 1578 lbs.	Empty 8052 lbs.	490 ft./min.
Internal 1578 lbs.	Normal Gross 13032 lbs.	Sea Level, N. G. Wt., Take-Off Power
External -- lbs.	Overload 13300 lbs.	
Payload (Troops) 2700 lbs.		

NOTES

Performance basis: NATC evaluation of HUS-1
 Range and RADIUS are based upon NATC fuel consumption data
 Reason for reissue: Availability of flight test data