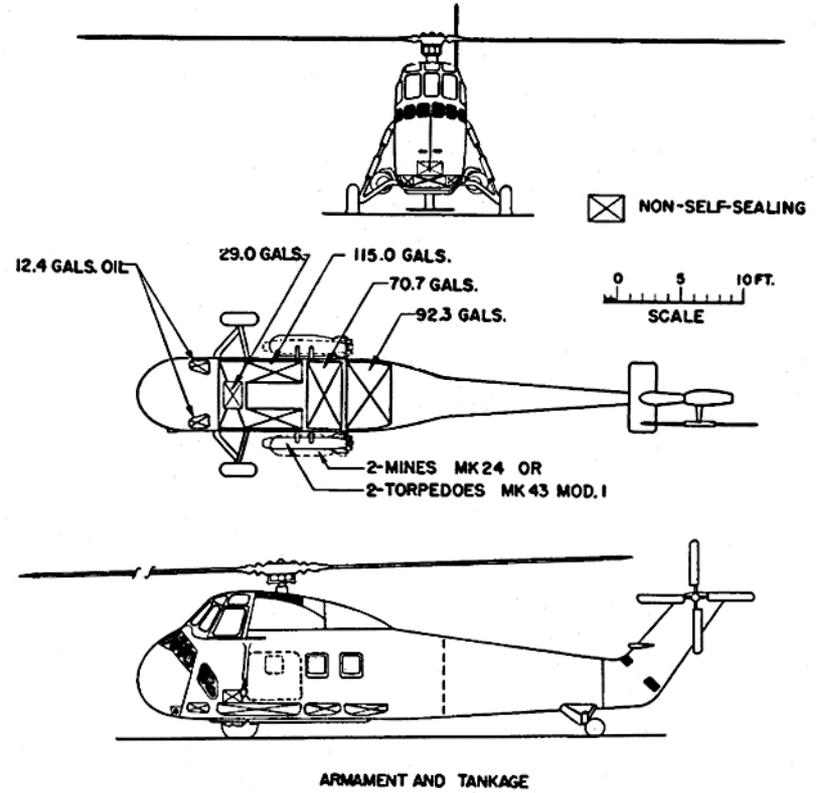
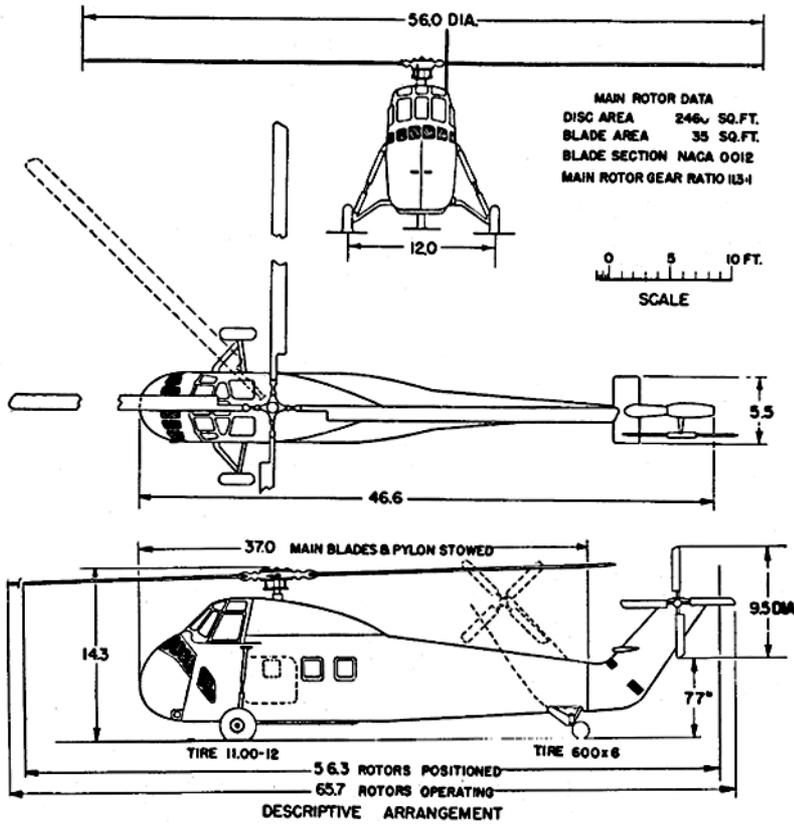




STANDARD AIRCRAFT CHARACTERISTICS

SH-34G



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 H-895
 of 26 Nov 1952

ORDNANCE**TORPEDOES AND MINES:**

TYPE	LOCATION	NO.
MK 43	FUSELAGE	2
MOD 1	or	
MK 24	FUSELAGE	2

MAX LOAD CAPACITY 1380 LBS.

MISSION AND DESCRIPTION

The HSS-1 helicopter is designed primarily as an ASW search and attack vehicle capable of operation from any cruiser or carrier. In the search configuration a crew of two pilots and two sonar operators is carried, and in the attack configuration a crew of two and two MK 43 torpedoes or MK 24 mines.

The HSS-1 is a single engine, single main rotor anti-torque rotor helicopter. It features a four-bladed, metal, articulated main rotor plus a four-bladed, metal, articulated tail rotor driven by the power plant through a conventional main transmission gear box. The main rotor blades and the tail rotor pylon are foldable enabling the helicopter to be stowed below on all cruisers and carriers.

The mechanical flight controls are augmented by a primary and a secondary hydraulic servo system.

DEVELOPMENT

First Flight..... September 1954
 Service Use March 1955

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	LBS	L.F.
EMPTY	8400
BASIC	8548
DESIGN	10515	2.67
MAX. T.O.	13300	2.11
MAX LANDING	13300	2.11

All weights are actual

FUEL AND OIL

NO. TANKS	GALS.	LOCATION
3	278	FUSELAGE
1	29	CABIN (REMOVABLE)

Fuel Grade 115/145
 Fuel Spec. MIL-F-5572

OIL

Capacity (Gals)..... 12.4
 Grade 1065/1100
 Spec. MIL-L-6082A

ELECTRONICS

DHF RADIO SET AN/ARC-55
 MIF AN/ARC-2, 2A
 ICS AN/AIC-4A
 ALTIMETER AN/APN-22
 FINDER GROUP AN/ARA-25
 RADAR ID SET AN/APX-6, 6B
 CODER GROUP AN/APA-89
 ADF AN/ARN-41A
 TACAN AN/ARN-21
 COURSE INDICATOR 1D-250/ARN
 COMPASS MA-1
 SONAR AN/AQS-4A, 4D

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) ASW SEARCH	(2) ASW ATTACK	(3) ASW ATTACK (FULL FUEL)		
TAKE-OFF WEIGHT lb.	11,371	10,515	12,071		
Fuel lb.	1842	972	1668		
Payload lb.	--	520	1380		
Disc loading lb./sq.ft.	4.62	4.26	4.84		
Vertical rate of climb at S.L. (A) fpm.	1440	1920	1110		
Absolute hovering ceiling (A) ft.	6700	9900	5500		
Max. rate of climb at S.L. (B) fpm.	1590	1930	1470		
Service ceiling (100 fpm) (B) ft.	15100	17600	13200		
Speed at S.L. (B) kn.	123	126	121		
Max. speed/altitude (B) kn./ft.	123/S.L.	126/S.L.	121/S.L.		
Combat range n.mi.	227	--	--		
Average cruising speed kn.	84	--	--		
Cruising altitude ft.	S.L.	--	--		
Attack radius n.mi.	--	76	144		
Average cruising speed (C)/(D) kn/kn.	--	116/93	113/93		
Search Endurance hrs	2.7	--	--		
Average cruising speed kts.	84	--	--		

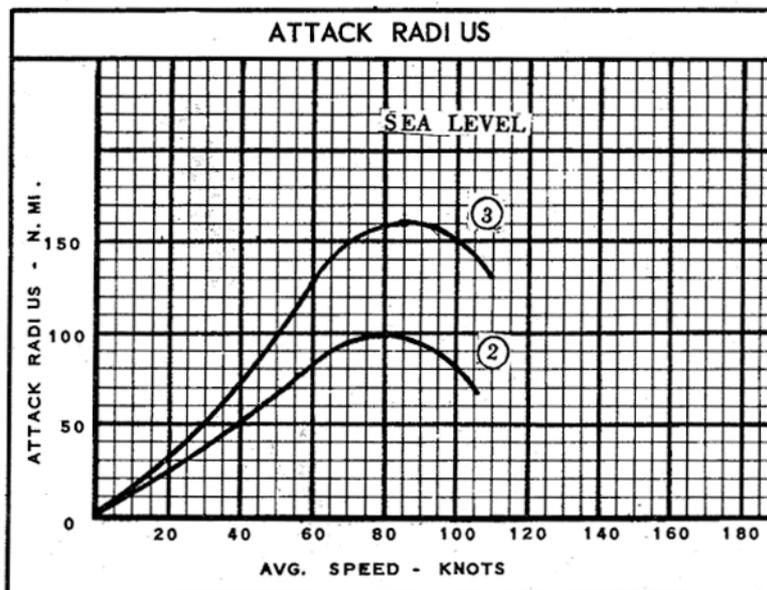
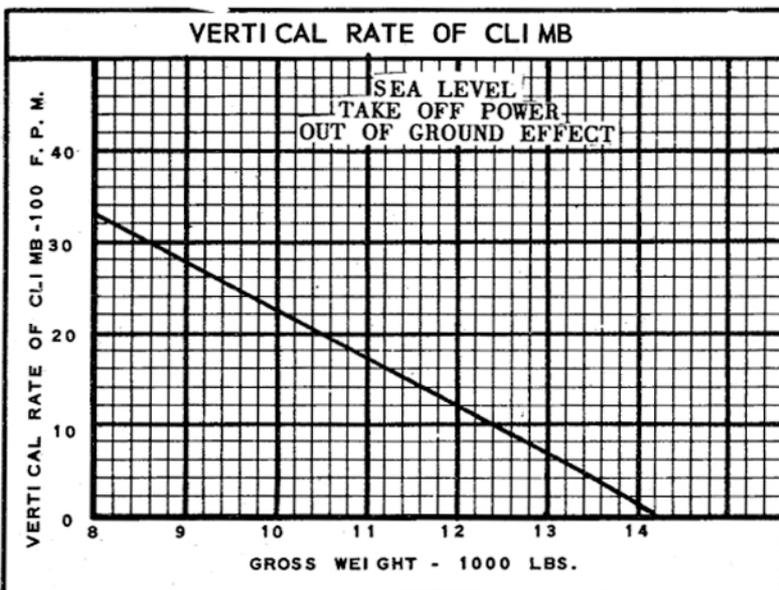
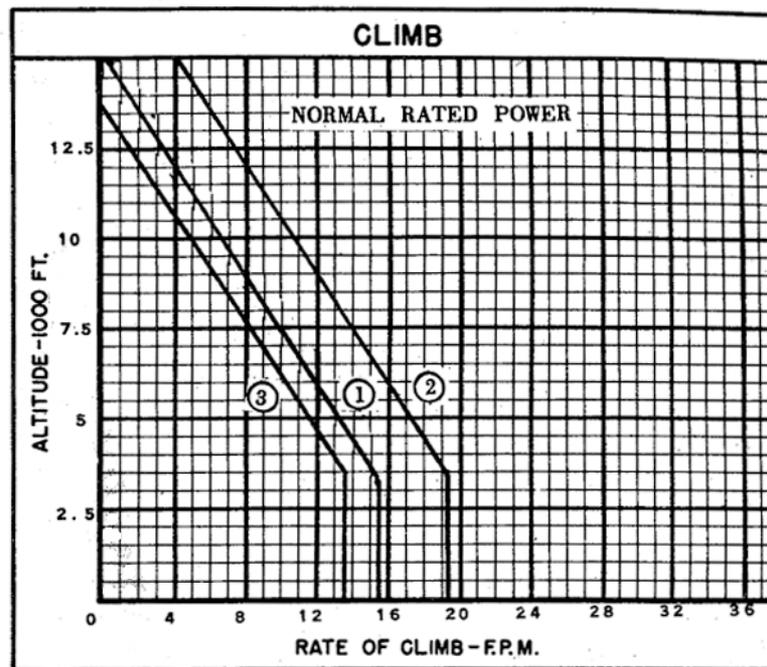
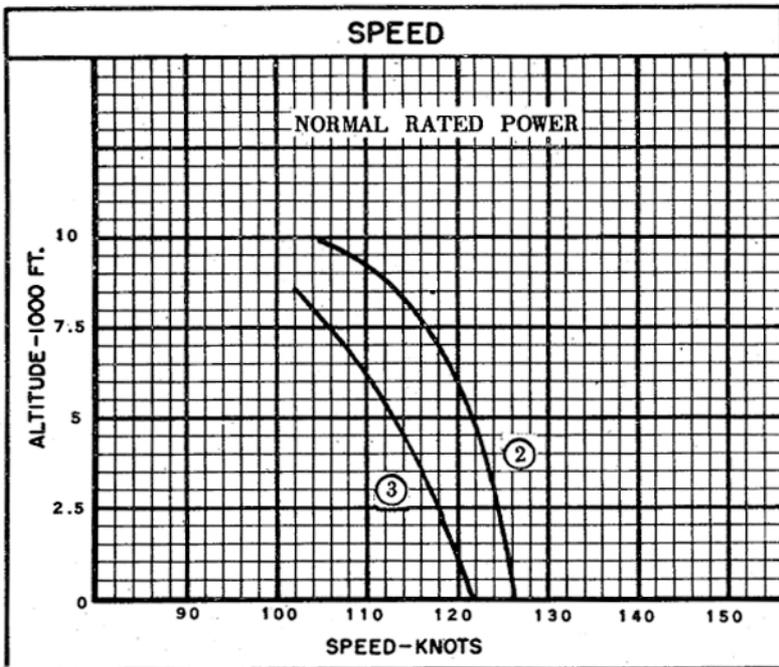
NOTES

- (A) TAKE-OFF POWER
- (B) NORMAL RATED POWER
- (C) AVERAGE CRUISING SPEED TO TARGET
- (D) AVERAGE CRUISING SPEED RETURNING

PERFORMANCE BASIS: NATESTCEN Evaluation of Model HSS-1 helicopter

RANGE, RADIUS, AND SEARCH ENDURANCE are based upon NATESTCEN fuel consumption data for the HSS-1.

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



○ LOADING CONDITION COLUMN NUMBER

NOTES

SPOTTING: 42 helicopters (blades folded) can be spotted in a rectangular area 200 ft. long and 96 ft. wide.

ASW SEARCH ENDURANCE PROBLEM

WARM-UP, TAKE-OFF: 5 minutes at Normal Rated Power
CRUISE: At speed for long range 40% of time at sea level
HOVER: Out of ground effect 60% of the time at sea level
RESERVE: 10% of initial fuel load

SEARCH ENDURANCE = CRUISE TIME + HOVER TIME

ASW ATTACK RADIUS PROBLEM

WARM-UP, TAKE-OFF: 5 minutes at Normal Rated Power
CRUISE-OUT: At 80% Normal Rated Power at sea level
DROP WEAPON: No fuel used; no distance gained.
CRUISE-BACK: At speed for long range at sea level
RESERVE: 10% of initial fuel load

COMBAT RADIUS = CRUISE DISTANCE TO TARGET
