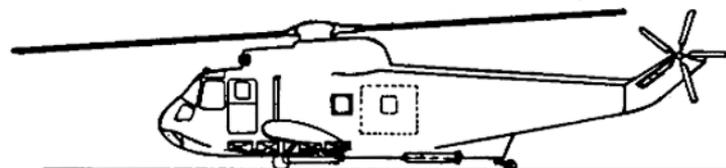
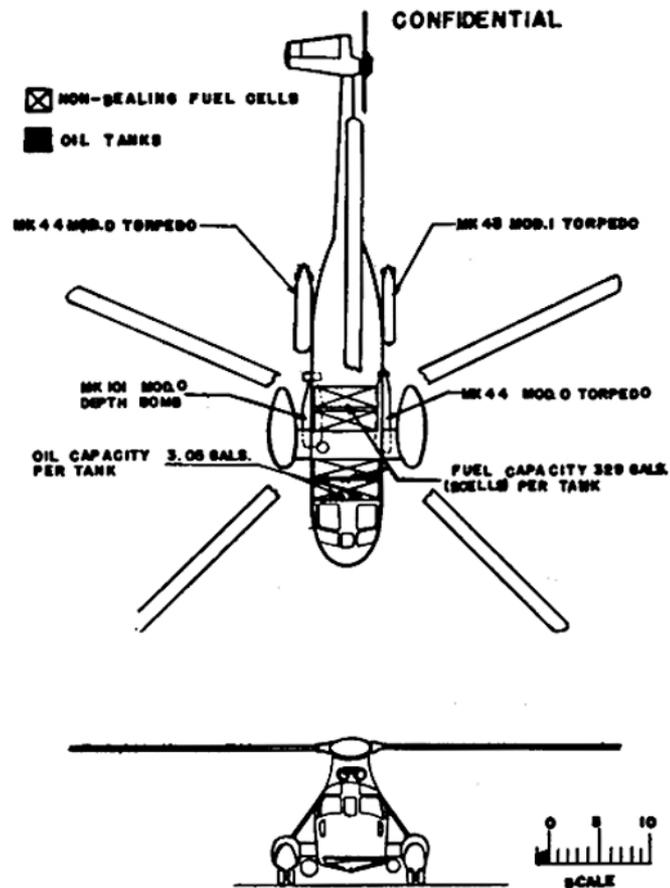
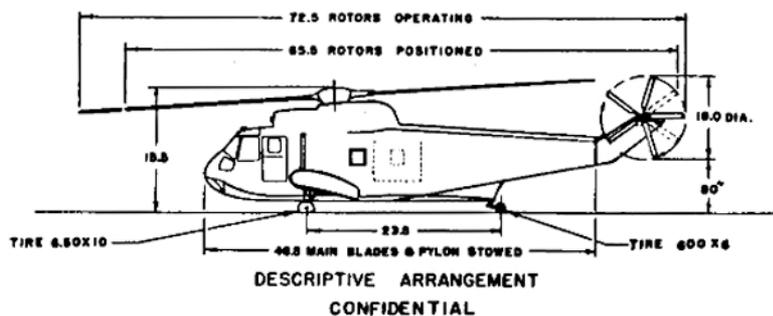
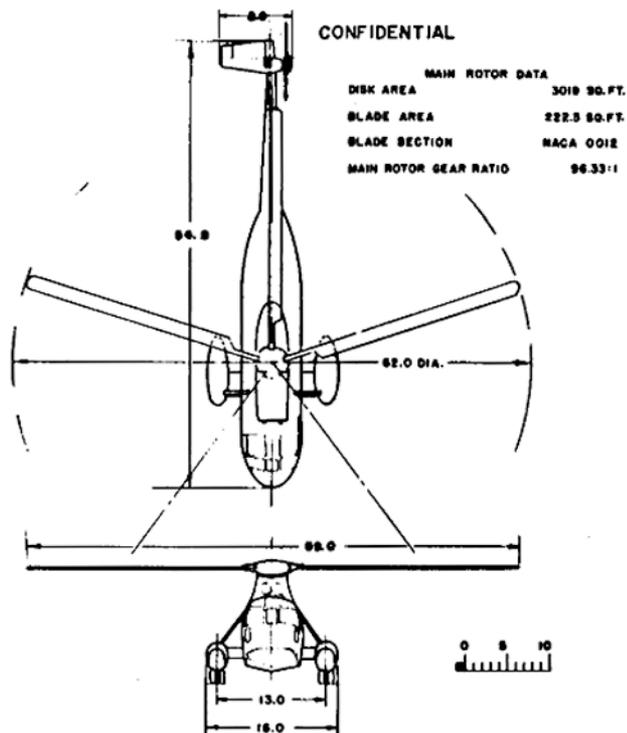


STANDARD AIRCRAFT CHARACTERISTICS

SH-3A

SIKORSKY



ARMAMENT AND TANKAGE

POWER PLANT

NO. & MODEL..... (2) T58-GE-6
 MFR General Electric
 ROTOR GEAR RATIO.....0.0319
 TAIL ROTOR RATIO0.0633

RATINGS

	ESHP	RPM	ALT
MIL.	1050	19,555	SSL
NORM.	900	19,555	SSL

Eng. Spec. No. E-1013
 of 11 April 1957

ORDNANCE

Four fixed launching stations provide for armament.

Primary mission armament:

2 Torpedoes MK 44, (Mod. 0)

Armament carried in any combination:

4 MK 43 (Mod. 1) Torpedoes
 4 MK 44 (Mod. 0) Torpedoes
 1 MK 101 (Mod. 0) Depth Bomb
 (Forward R.H. Station Only)

Space provisions are made to carry:

4 MK 14 (Mod. 0) Depth Charge
 4 MK 54 (Mod. 1) Air. Depth Bomb

MISSION AND DESCRIPTION

The primary mission of the helicopter is to detect, identify, track and destroy enemy submarines. It is capable of all weather operation from carriers, cruisers and from other naval and merchant ships which have adequate landing provisions and from land bases.

This helicopter is a twin-engine, single-main-rotor type with one anti-torque tail rotor and a fixed trim surface. All-metal construction is used throughout the aircraft. A large door toward the rear of the cabin and a personnel door toward the front of the cabin provide entrance for the crew. The fuselage of semi-monocoque construction has an amphibian type hull bottom to provide emergency water landing capability. A sponson is provided on the outer end of the landing gear support to increase lateral stability during emergency water landings. The main rotor blades are pretracked and shall be manually foldable in winds up to 40 knots to reduce the overall length for stowage. The tail pylon is also foldable. A rotor brake provides stopping of the rotor blades from hovering RPM to prevent windmilling. Flight controls include hydraulic servo systems for the main and tail rotor. Automatic stabilization equipment is provided and is capable of being engaged or disengaged at any time during flight without disturbance.

Personnel include pilot, co-pilot, sonar operator and relief sonar operator.

DEVELOPMENT

First Flight April 1959
 Service Use March 1961

DIMENSIONS

DISC AREA 3019 sq. ft.
 BLADE AREA 222.5 sq. ft.
 NO. OF BLADES (MAIN) 5
 MAIN ROTOR DIA. 62' - 0"
 LENGTH (BLADES FOLDED) ... 56' - 9 $\frac{1}{2}$ "
 LENGTH (BLADE & PYLON FOLD) 46' - 6"
 LENGTH (BLADES ROTATING) ... 72' - 6"
 HEIGHT (BLADES FOLDED) ... 16' - 8 $\frac{1}{2}$ "
 TREAD 13' - 0"
 SPAN (BLADES FOLDED) 16' - 0"
 STABILIZER AREA 21 sq. ft.

WEIGHTS

LOADING	LBS.	L.F.
EMPTY	10814	
BASIC	11196	
DESIGN G.W.	17196	2.36
OVERLOAD G.W.	19000	2.14

All weights are actual

FUEL AND OIL

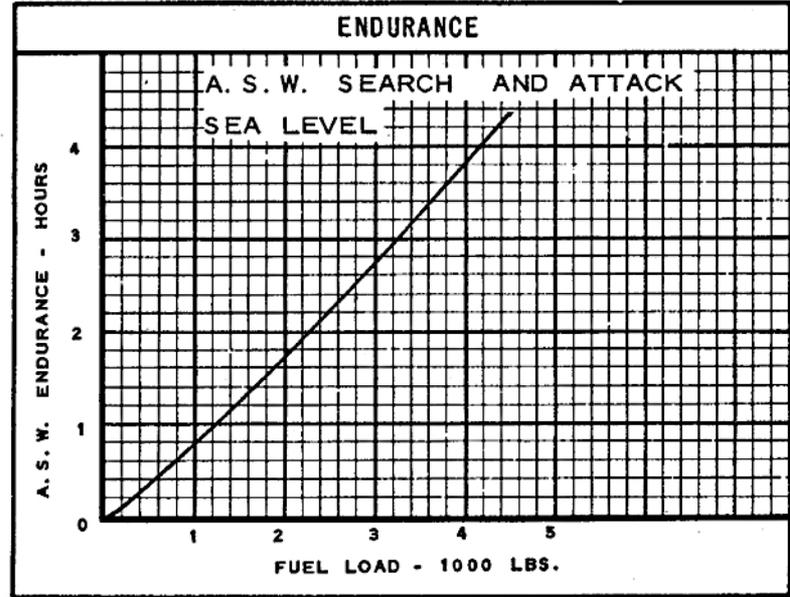
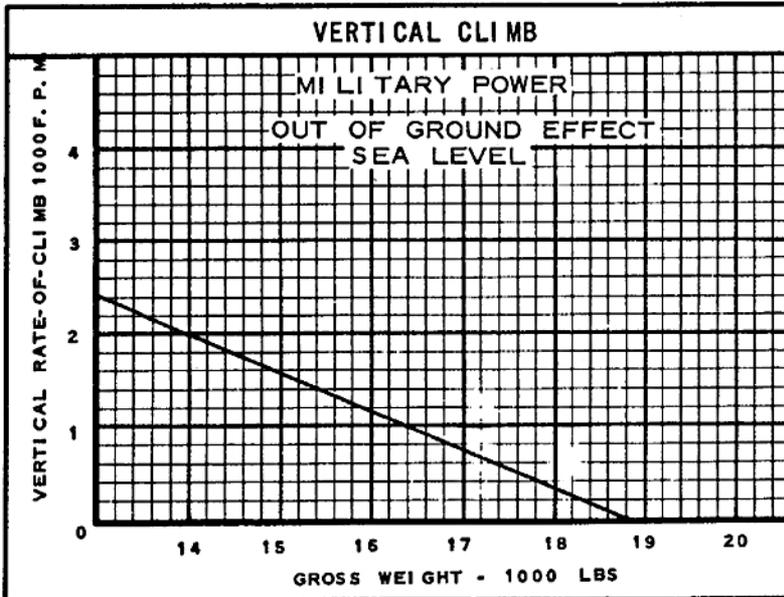
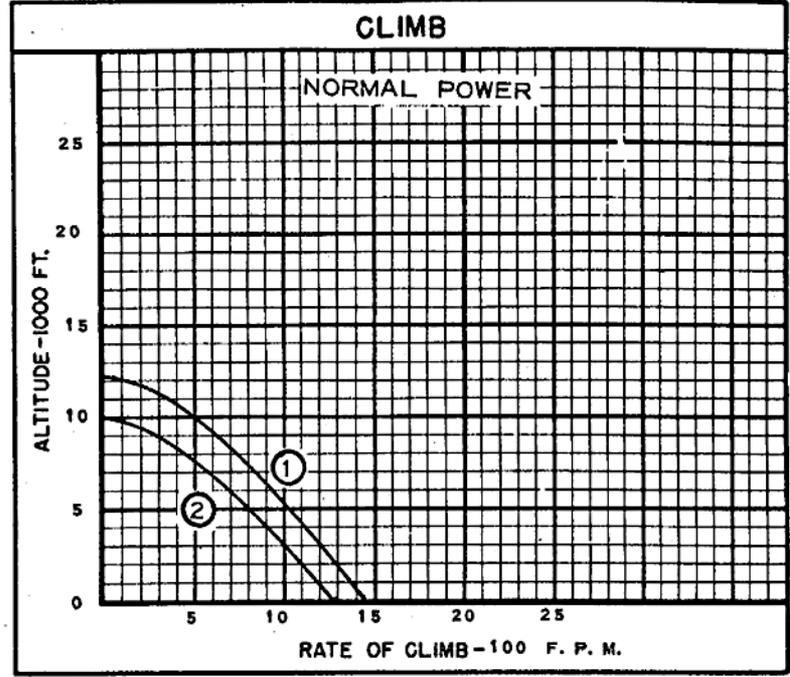
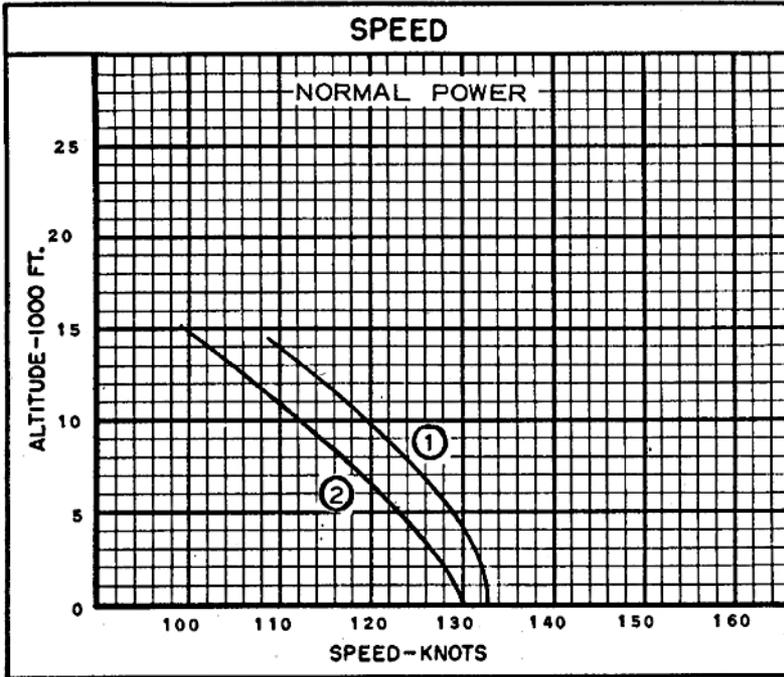
GAL.	NO. TANKS	LOCATION
658	2	Internal
Fuel Grade.....		JP-4
Fuel Spec.....		MIL-F-5624

OIL

Capacity (Gal.)..... 6.1
 Fuel Spec. MIL-C-7808

ELECTRONICS

RADIO SET (UHF)..... AN/ARC-52
 RADIO SET (HF)..... AN/ARC-39
 INTERPHONE, TRANS. AMP..... AN/AIC-4A
 RADAR IDENTIFICATION SET ... AN/APX-6B
 CODER GROUP AN/APA-89
 LOW FREQUENCY ADF..... AN/ARN-59
 RADIO SET..... AN/ARN-21A
 RADAR ALTIMETER AN/APN-117
 SONAR AN/AQS-10
 RADAR NAVIGATION SET AN/AFN-130
 NAVIGATION COMPUTER GROUP ... AN/ASA-13A



○ LOADING CONDITION COLUMN NUMBER

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) ASW SEARCH & ATTACK 2 MK-44	(2) ASW ATTACK 4 MK-44		
TAKE-OFF WEIGHT	lb.	17196	18088		
Fuel (JP-4)	lb.	4425	4425		
Payload	lb.	882	1764		
Disc loading	lb./sq.ft.	5.69	6.00		
Vertical rate of climb at S.L.	(A) fpm.	680	320		
Absolute hovering ceiling	(A) ft.	5200	2900		
Max. rate of climb at S.L.	(B) fpm.	1450	1280		
Service ceiling (100 fpm)	(B) ft.	12100	9900		
Max. Speed/Altitude	(B) kn.	133/S.L.	130/S.L.		
Min./ Maximum Speed at S.L.	(A) (C) kn./kn.	38/98	52/90		
Combat Range	n.mi.	500	483		
Average cruising speed	kn.	120	120		
Cruising altitude	ft.	S.L.	S.L.		
Max. Endurance	hr.	--	4.90		
Average cruising speed/Alt	kn./ft.	--	61/S.L.		
ASW Endurance	hr.	4.35	--		
Cruising speed	kn.	100	--		

NOTES

- (A) MILITARY POWER (Transmission Limit 2000 HP)
 (B) NORMAL POWER
 (C) ONE ENGINE IMOPERATIVE

PERFORMANCE BASIS: Calculation, contractor flight test data and NATESTCEM
 MPE flight test data

ENDURANCE is based on engine specification fuel consumption data
 increased by 5%

MAXIMUM ENDURANCE MISSION

WARM UP AND TAKE-OFF: 3 min at sea level at
 normal rated power
 CRUISE: at sea level at speed for test endurance
 RESERVE: 10% of initial fuel load

ASW SEARCH AND ATTACK MISSION

WARM-UP AND TAKE-OFF: 3 minutes at sea level
 at Normal Rated Power
 CRUISE AND HOVER: Cruise and Hover alternately
 Cruise at 100 knots 50% of time - Acceleration,
 Deceleration, and Hover 50% of time - ASW
 Endurance equals Cruise, Acceleration,
 Deceleration, and Hover time
 RESERVE: 10% of initial fuel load

COMBAT RANGE MISSION

WARM UP AND TAKE-OFF: 3 min at sea level
 at normal rated power
 CRUISE: At sea level at speed for best range
 RESERVE: 10% of initial fuel load