



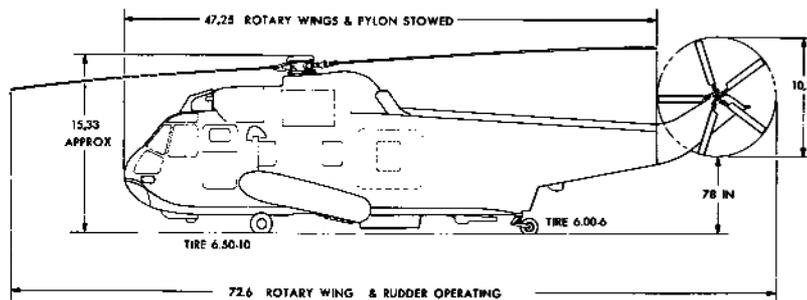
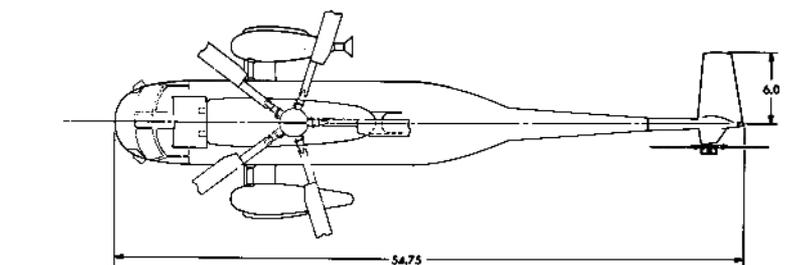
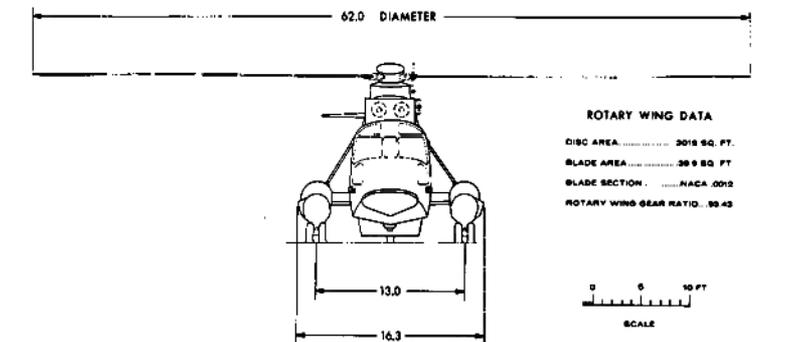
STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4A (REV. 7-65)

STANDARD AIRCRAFT CHARACTERISTICS

SH-3H

SIKORSKY

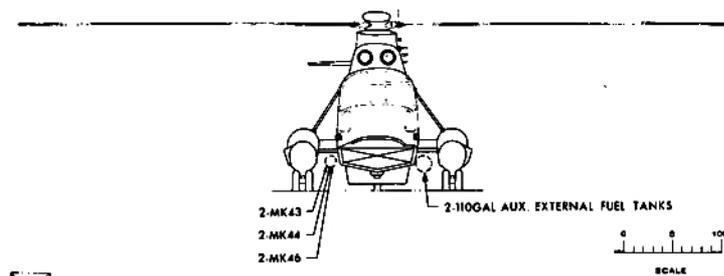
NAVAL AIR SYSTEMS COMMAND
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

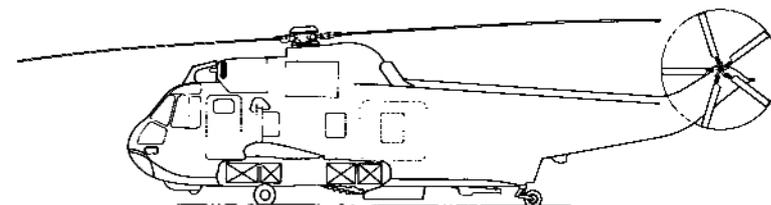
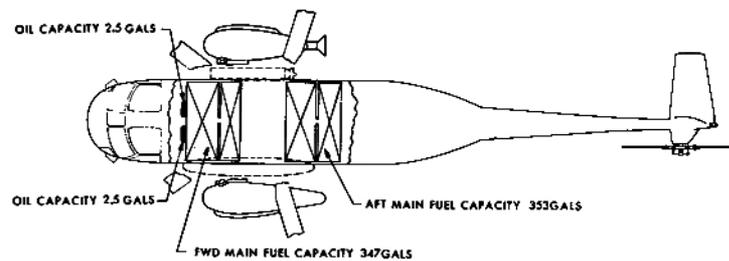
SH-3H

NAVAL AIR SYSTEMS COMMAND
NAVY DEPARTMENT



NON-SELF SEALING FUEL TANKS (TOTAL CAP 700GALS)

OIL TANKS (TOTAL CAP 5.0GALS)



ARMAMENT AND TANKAGE

APRIL 1972

STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/48 (Rev. 7-65)

STANDARD AIRCRAFT CHARACTERISTICS, NAVPERS FORM 13100/4C (Rev. 7-65)

POWER PLANT	MISSION AND DESCRIPTION	WEIGHTS																																																						
<p>No. and Model: (2) T58-GE-10 Manufacturer: General Electric Engine Spec. No.: E1081 23 Oct. 1963 Type: Axial</p> <p>Main Rotor Gear Ratio: 93.43 to 1 Tail Rotor Gear Ratio: 15.757 to 1</p> <p style="text-align: center;">RATINGS</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>*ESHP</th> <th>RPM</th> <th>ALT</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>Military:</td> <td>1400</td> <td>19500</td> <td>S.S.L.</td> <td>30 Min.</td> </tr> <tr> <td>Normal:</td> <td>1250</td> <td>19500</td> <td>S.S.L.</td> <td>Contin.</td> </tr> </tbody> </table> <p>* See Page 4, Performance Basis, Items (5)&(9)</p>		*ESHP	RPM	ALT	TIME	Military:	1400	19500	S.S.L.	30 Min.	Normal:	1250	19500	S.S.L.	Contin.	<p>The missions of this helicopter shall be:</p> <ol style="list-style-type: none"> (1) To detect, identify, track, and destroy enemy submarines. (2) To detect, identify, and track anti-ship missiles and to warn surface vessels in the operational area. (3) To provide logistic support capability. (4) To provide search and rescue capability as required. <p>The twin turbine engine helicopter uses a single main rotor and a single anti-torque tail rotor. The blades are all metal construction. Main rotor blades are equipped with Sikorsky BHM to eliminate mandatory blade retirement. Conventional helicopter controls are provided for both pilot and copilot. The mechanical controls are augmented by two parallel and independent hydraulic servo systems. An automatic flight control system (AFCS) is also provided. The amphibious design of the alighting gear is formed by hull bottom, sponsons, and retractable main wheels. Tail pylon and main rotor blades fold to permit stowage on a CVE-55 carrier elevator.</p> <p>The SH-3H configuration is a modified SH-3G featuring basic aircraft and electronic improvements to provide increased multi-purpose mission capabilities. The SH-3G evolved from the basic SH-3A helicopter and featured convertibility between ASW and utility missions.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">LOADING</th> <th style="text-align: center;">POUNDS</th> <th style="text-align: center;">L.F.</th> </tr> </thead> <tbody> <tr> <td>Empty</td> <td style="text-align: center;">(E) 13,892</td> <td></td> </tr> <tr> <td>Basic</td> <td style="text-align: center;">13,918</td> <td></td> </tr> <tr> <td>Operating Weight Design</td> <td style="text-align: center;">**14,809</td> <td style="text-align: center;">2.25</td> </tr> <tr> <td>Combat</td> <td style="text-align: center;">**18,154</td> <td></td> </tr> <tr> <td>Maximum Takeoff</td> <td style="text-align: center;">*21,000</td> <td style="text-align: center;">2.25</td> </tr> <tr> <td>Maximum Landing</td> <td style="text-align: center;">*21,000</td> <td style="text-align: center;">2.25</td> </tr> </tbody> </table> <p>(E) Estimated * Structural Substantiation ** For Basic Mission</p>	LOADING	POUNDS	L.F.	Empty	(E) 13,892		Basic	13,918		Operating Weight Design	**14,809	2.25	Combat	**18,154		Maximum Takeoff	*21,000	2.25	Maximum Landing	*21,000	2.25																		
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<p>AN/ARC-51A Radio Set (UHF) AN/ARN-52(V) TACAN Navigation Set AN/APX-72 Radar Identification Set AN/ARC-94 Radio Set AN/ARN-59 ADF AN/ARA-25A Direction Finder Group AN/APN-171 Radio Altimeter AN/APN-182(V) Radar Navigation Set AN/AYK-2 Navigation Computer Set AN/AQS-13B Sonar Detection System AN/APQ-107 Radar Altitude Warning System AN/ARR-52A(V) Receiver Set Radio AN/ASN-50 Attitude Heading Reference System AN/ASQ-81(V)(-2) Magnetic Detecting Set AN/ASA-26B Recorder Group AN/ALR-54 Electronic Surveillance Measures Radar AN/AIC-14 Intercommunications Set AN/ALE-37 Chaff Dispenser Unit AN/AKT-22(V)-2 Sonobuoy Data Link LN 66 HP Search Radar</p>	<p style="text-align: center;">DIMENSIONS</p> <table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Main Rotor Diameter</td> <td style="text-align: right;">62'-0"</td> </tr> <tr> <td>Length</td> <td></td> </tr> <tr> <td> Maximum</td> <td style="text-align: right;">72'-7.5"</td> </tr> <tr> <td> Folded blades and tail</td> <td style="text-align: right;">47'-3"</td> </tr> <tr> <td>Height</td> <td></td> </tr> <tr> <td> Top of main rotor</td> <td style="text-align: right;">15'-4"</td> </tr> <tr> <td> Folded blades and tail</td> <td style="text-align: right;">16'-10"</td> </tr> <tr> <td> Width (folded blades)</td> <td style="text-align: right;">16'-4"</td> </tr> <tr> <td> Tail Rotor Ground Clearance</td> <td style="text-align: right;">6'-6"</td> </tr> <tr> <td> Main Gear Tread</td> <td style="text-align: right;">13'-0"</td> </tr> <tr> <td> Main Rotor Disc Area</td> <td style="text-align: right;">3019 sq.ft.</td> </tr> <tr> <td> Main Rotor Blade Area (total)</td> <td style="text-align: right;">199.5 sq.ft.</td> </tr> </tbody> </table>	Main Rotor Diameter	62'-0"	Length		Maximum	72'-7.5"	Folded blades and tail	47'-3"	Height		Top of main rotor	15'-4"	Folded blades and tail	16'-10"	Width (folded blades)	16'-4"	Tail Rotor Ground Clearance	6'-6"	Main Gear Tread	13'-0"	Main Rotor Disc Area	3019 sq.ft.	Main Rotor Blade Area (total)	199.5 sq.ft.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">LOCATION</th> <th style="text-align: center;">TYPE</th> <th style="text-align: center;">GAL.</th> </tr> </thead> <tbody> <tr> <td>Fuselage</td> <td></td> <td></td> </tr> <tr> <td> Forward</td> <td style="text-align: center;">Bladder</td> <td style="text-align: right;">347.0</td> </tr> <tr> <td> Aft</td> <td style="text-align: center;">Bladder</td> <td style="text-align: right;">353.0</td> </tr> <tr> <td>Fwd. Launch Points 2-Aux. (droppable)</td> <td></td> <td style="text-align: right;">220.0</td> </tr> <tr> <td>Grade</td> <td style="text-align: center;">JP-4, JP-5</td> <td></td> </tr> <tr> <td>Specification</td> <td style="text-align: center;">MIL-J-5624C-1</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">OIL</td> </tr> <tr> <td>Engine Comp't.</td> <td style="text-align: center;">2 Metal</td> <td style="text-align: right;">5.0</td> </tr> <tr> <td>Specification</td> <td style="text-align: center;">MIL-L-7808D</td> <td></td> </tr> </tbody> </table>	LOCATION	TYPE	GAL.	Fuselage			Forward	Bladder	347.0	Aft	Bladder	353.0	Fwd. Launch Points 2-Aux. (droppable)		220.0	Grade	JP-4, JP-5		Specification	MIL-J-5624C-1		OIL			Engine Comp't.	2 Metal	5.0	Specification	MIL-L-7808D	
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	<p>Four Fixed Launching Points:</p> <p>ASW Mission</p> <p style="padding-left: 20px;">2 MK-46 (Mod 0/1) Torpedoes</p> <p>ASMD Mission</p> <p style="padding-left: 20px;">2 Chaff Dispenser Units (aft)</p> <p>Alternate Armament</p> <ol style="list-style-type: none"> 1 MK-101 (Mod 0) Depth Bomb, or, 2 MK-54 (Mod 1) Depth Bombs, or, 2 MK-14 (Mod 0) Depth Charge, or, 2 MK-43 (Mod 1) Torpedoes, or, 2 MK-44 (Mod 1) Torpedoes 																																																							
		ACCOMMODATIONS																																																						
		<p>Crew (ASW/ASMD)-----4</p> <p>Provision for troop seats-----15</p> <p>Cabin Size Clearance: Length-----27' - 9"</p> <p style="padding-left: 100px;">Width-----6' - 6"</p> <p style="padding-left: 100px;">Height-----Approx. 6' - 0"</p>																																																						

PERFORMANCE SUMMARY						
TAKE-OFF LOADING CONDITION		CLEAN-HIGH ALTITUDE	ASW-BASIC MISSION (2-MK 46 Torpedoes)	ASMD (Chaff-306 lb.)	ASW-HOVER/CRUISE (2-MK 46 Torpedoes)	FERRY RANGE
TAKE-OFF WEIGHT	LB.	17751	21000	18610	21000	19392
FUEL	LB.	4763	4615	3255	4615	6259
PAYLOAD	LB.	0	1576	306	1576	0
DISC LOADING	LB./SQ.FT.	5.88	6.95	6.16	6.95	6.42
VERTICAL RATE OF CLIMB AT S.L. (B)	FPM.	800	0	550	0	330
ABSOLUTE HOVERING CEILING (B)	FT.	5900	0	4400	0	3000
MAX. RATE OF CLIMB AT S.L. (A)/(B)	FPM.	1720/2400	1130/1700	1540/2200	1130/1700	1410/2020
SERVICE CEILING (100 FPM.) (A)/(B)	FT.	15,750/15,850	10,800/11,150	14,400/14,600	10,800/11,150	13,200/13,450
SPEED AT S.L. (A)	KN.	137	126	134	126	132
MAX. SPEED/ALTITUDE (A)	KN./FT.	111/10,000	124/1500	133/1500	126/S.L.	98/10,000
COMBAT RANGE	N.MI.	---	---	---	---	647
AVERAGE CRUISING SPEED	KN.	---	---	---	---	99
CRUISING ALTITUDE	FT.	---	---	---	---	10,000
COMBAT RADIUS	N.MI.	258	162	10	---	---
AVERAGE CRUISING SPEED	KN.	106	116	90	100	---
Cruising Altitude	FT.	10,000	1500	1500	S.L.	---
Total Mission Time	HRS.	5.0	3.8	3.2	3.2	6.6

NOTES:

- (A) Normal power
(B) Military power

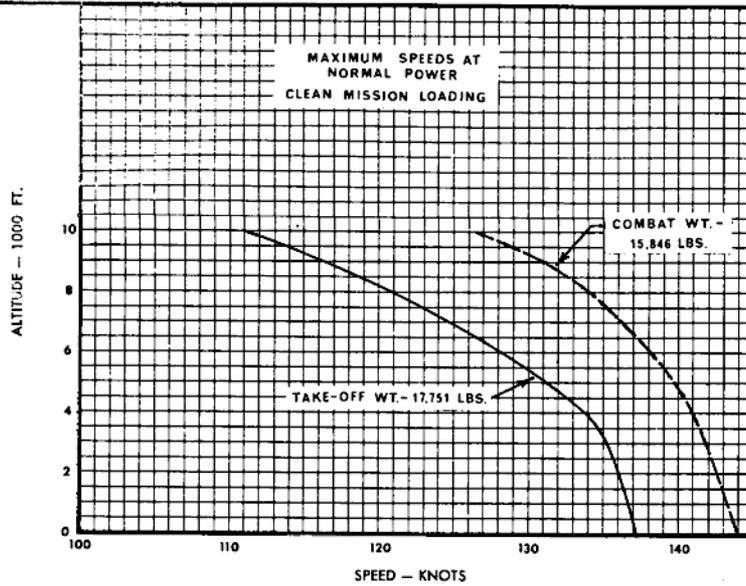
Performance Basis:

- (1) ICAO standard conditions, no wind, no ground effect.
- (2) Calculated data based on Navy flight tests on SH-3A helicopter.
- (3) Range and radius based on General Electric specification fuel consumption data using fuel grade JP-5.
- (4) Fuel consumption data are increased 5% above engine specification values.
- (5) Transmission ratings for two engine operation are 2100 HP, maximum continuous and 2500 HP, takeoff.
- (6) Aircraft red line airspeed is 144 knots IAS.
- (7) Weight data is estimated pending actual weight and balance, first aircraft.
- (8) Performance reference: Sikorsky Report, SER-611570, "Substantiating Data for Standard Aircraft Characteristics and Performance Charts for SH-3H Helicopter".
- (9) With Sikorsky engine ice deflector shield installed, power ratings used in performance calculations are:

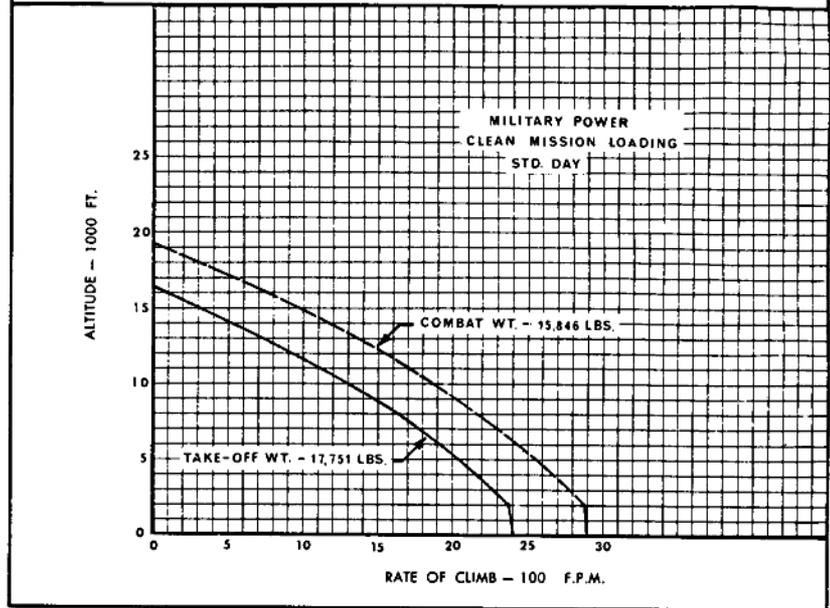
	SHP	RPM	ALT
Military	1322	18966	S.S.L.
Normal	1185	18966	S.S.L.

STANDARD AIRCRAFT CHARACTERISTICS, NAVAFS FORM 19100/4E(12-69)

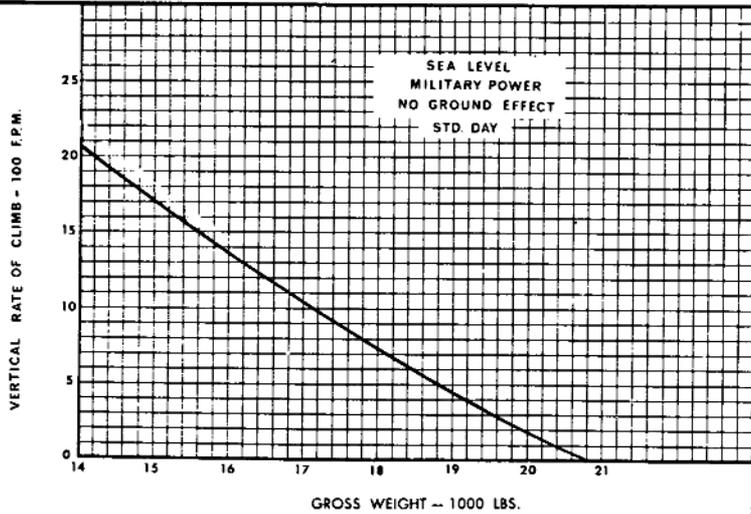
SPEED



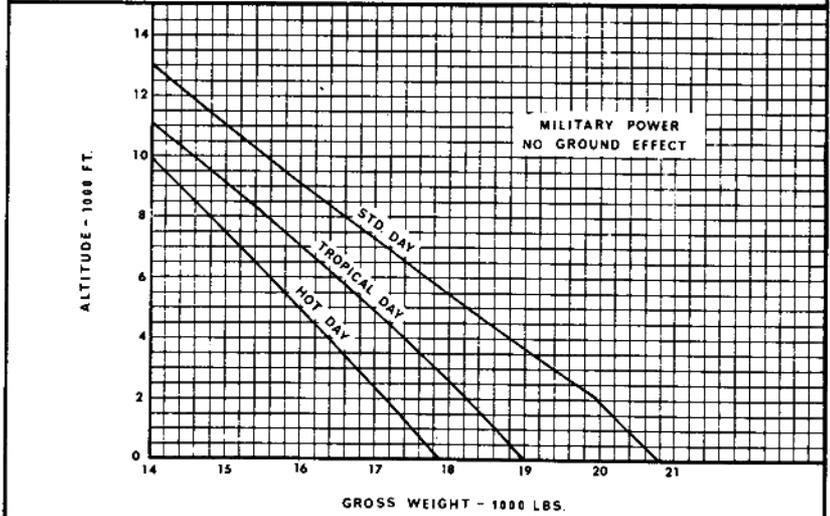
CLIMB



VERTICAL CLIMB

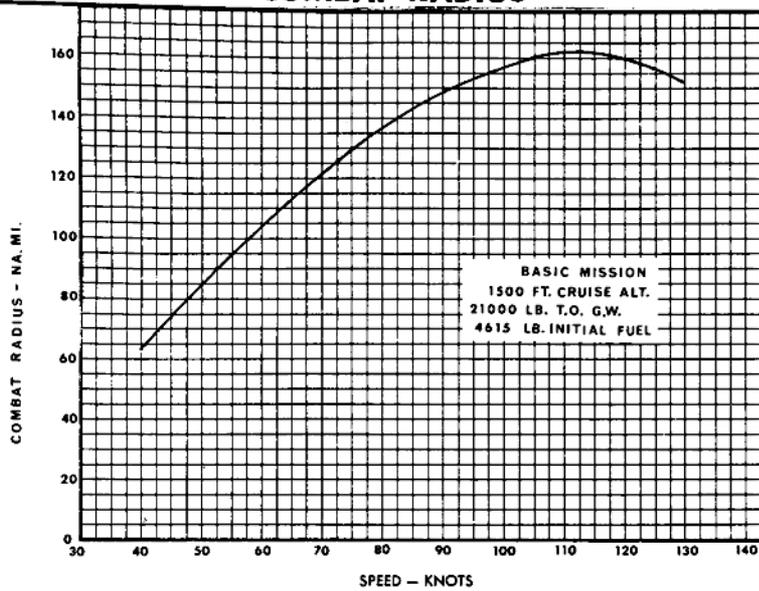


HOVER CEILING

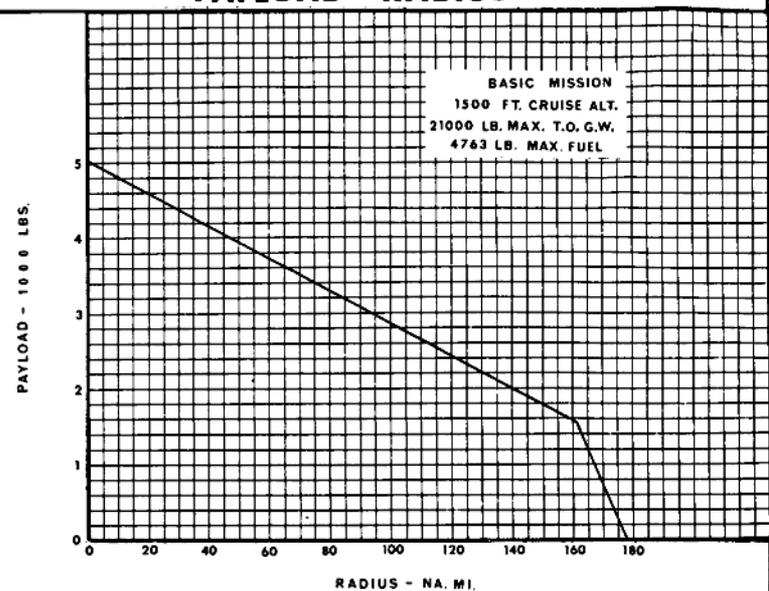


STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4F (Rev. 7-65)

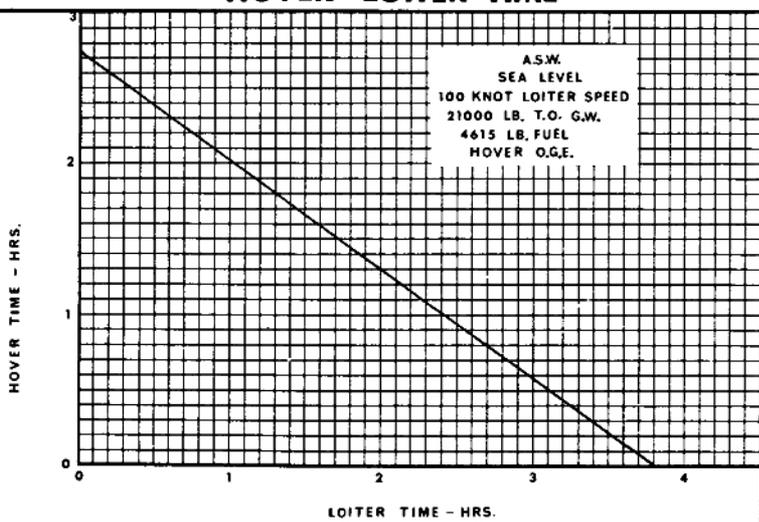
COMBAT RADIUS



PAYLOAD - RADIUS



HOVER-LOITER TIME

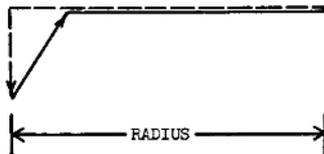


STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4F (REV. 7-65)

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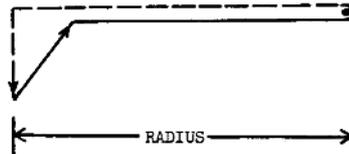
CLEAN - HIGH ALTITUDE

Warmup & Takeoff: 2 min. at S.L., NRP.
 Climb: On course to 10,000 ft. with Mil power.
 Cruise Out: At maximum range speeds to remote base.
 Hover: 5 min. OGE at remote base.
 Cruise Back: At maximum range speeds, 10,000 ft.
 Descend: To S.L. (no fuel used, no distance gained).
 Reserve: 10% of initial fuel load.



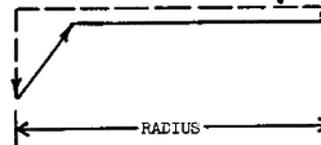
ANTI-SUBMARINE WARFARE (ASW) - BASIC MISSION

Warmup & Takeoff: 2 min. at S.L., NRP.
 Climb: On course to 1500 ft. with Mil power.
 Cruise Out: To target at maximum range speeds.
 Loiter: One hour at 1500 ft. at maximum endurance speeds. Drop stores.
 Cruise Back: To home base at maximum range speeds, 1500 ft.
 Descend: To S.L. (no fuel used, no distance gained).
 Reserve: 10% of initial fuel load.



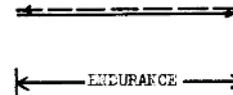
ANTI-SHIP MISSILE DEFENSE (ASMD)

Warmup & Takeoff: 2 min. at S.L., NRP.
 Climb: On course to 1500 ft. with Mil power.
 Cruise Out: 10 nautical miles at maximum endurance speed, 1500 ft.
 Loiter: 3 hours at maximum endurance speed, 1500 ft.
 Cruise Back: 10 nautical miles at maximum range speeds, 1500 ft.
 Descend: To S.L. (no fuel used, no distance gained).
 Reserve: 10% of initial fuel load.



ASW-HOVER/CRUISE

Warmup & Takeoff: 3 min. at S.L., NRP.
 Alternately hover OGE at S.L. and cruise at 100 knots at S.L. allowing 50% of time for hover and 50% of time for cruise.
 Reserve: 10% of initial fuel load.



FERRY RANGE

Warmup & Takeoff: 5 min. at S.L., NRP.
 Climb: On course to 10,000 ft. with Mil power.
 Cruise Out: At maximum range speeds to remote base at 10,000 ft.
 Descend: To S.L. (no fuel used, no distance gained).
 Reserve: 10% of initial fuel load.



STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4G (Rev. 7-65)