



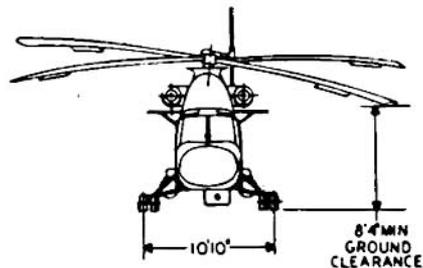
# STANDARD AIRCRAFT CHARACTERISTICS

HH-2C "SEASPRITE"

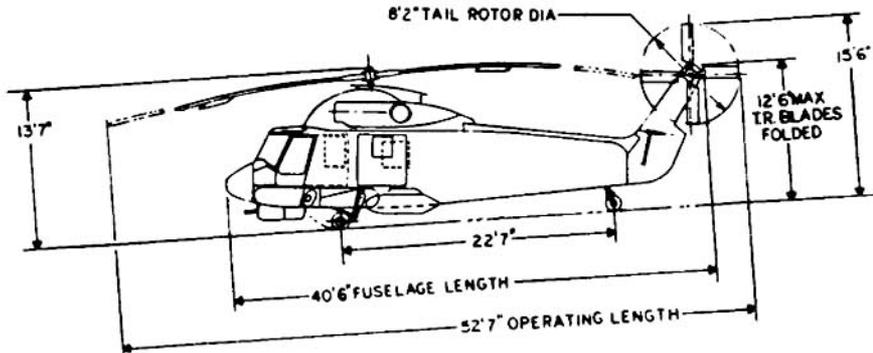
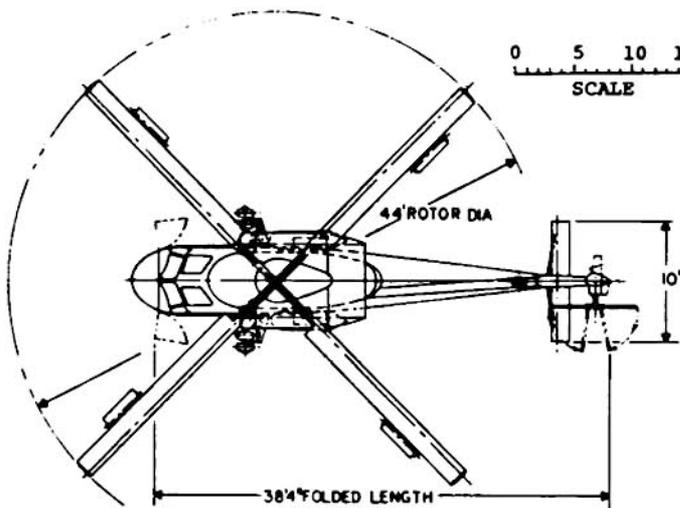
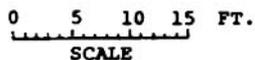
KAMAN

NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT

**MAIN ROTOR**



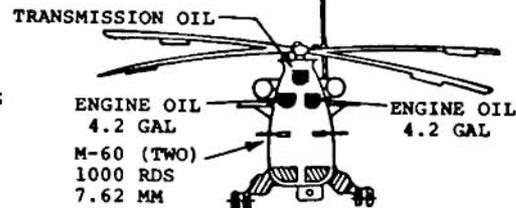
DISC AREA 1520.5 SQ. FT.  
BLADE AREA 158.3 SQ. FT.  
AIRFOIL SECTION NACA 23012 MOD.  
ENGINE/ROTOR GEAR RATIO 67.4:1



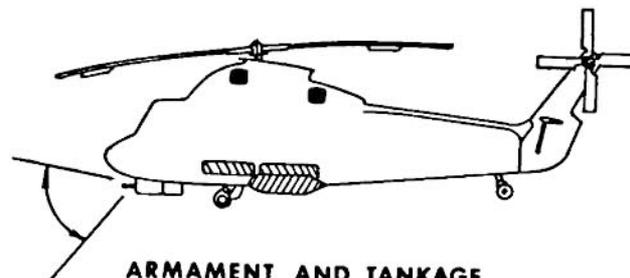
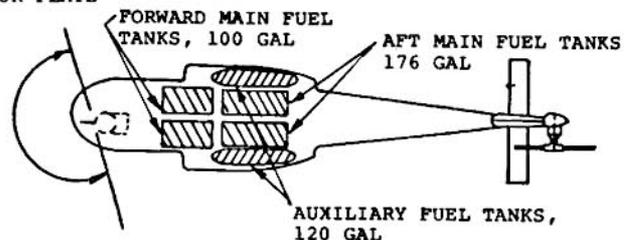
**DESCRIPTIVE ARRANGEMENT**

NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT

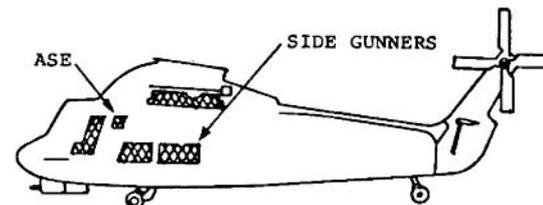
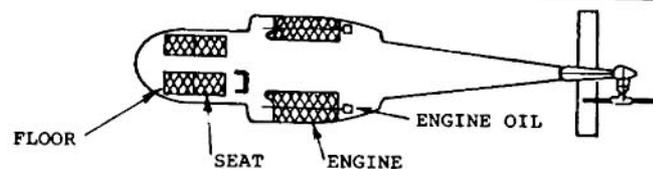
- NON-SELF SEALING
- SELF SEALING
- OIL
- ARMOR PLATE



TAT-102K  
4160 RDS  
7.62 MM



**ARMAMENT AND TANKAGE**



**ARMOR**

POWER PLANT	MISSION AND DESCRIPTION	WEIGHTS																																	
<p>NO. &amp; MODEL . . . . . (2) T58-GE-8B MFR . . . . . GENERAL ELECTRIC</p> <p><u>GEAR REDUCTION RATIOS</u></p> <p>ENGINE SPEED DECREASER. . . . . 0.31 MAIN ROTOR . . . . . 0.048 TAIL ROTOR . . . . . 0.29</p> <p><b>RATINGS</b></p> <table border="1"> <thead> <tr> <th></th> <th><u>SHp</u></th> <th><u>RPM</u></th> <th><u>ALT</u></th> </tr> </thead> <tbody> <tr> <td>MIL</td> <td>1250</td> <td>19500</td> <td>S.S.L.</td> </tr> <tr> <td>NORM</td> <td>1050</td> <td>19500</td> <td>S.S.L.</td> </tr> </tbody> </table> <p>G.E. ENGINE SPEC. NO. E1025-D MARCH 15, 1966</p>		<u>SHp</u>	<u>RPM</u>	<u>ALT</u>	MIL	1250	19500	S.S.L.	NORM	1050	19500	S.S.L.	<p>THE PRIMARY MISSION OF THE HH-2C HELICOPTER IS TO ACCOMPLISH ARMED SEARCH AND RESCUE MISSIONS FROM THE DECK OF DESTROYERS AND SIMILAR SMALLER SHIPS. THE SECONDARY MISSION INCLUDES GENERAL UTILITY TASKS.</p> <p>THE HH-2C IS A TWIN TURBOSHAFT ENGINE POWERED, SINGLE FOUR-BLADED ROTOR HELICOPTER WITH AN ANTI-TORQUE TAIL ROTOR. THE MAIN ROTOR IS CONTROLLED BY AERODYNAMIC SERVO FLAPS ACTUATED BY CONVENTIONAL PILOT'S COCKPIT CONTROLS.</p> <p>THE HH-2C IS A MODIFICATION OF THE HH-2D FOR RESCUE MISSIONS OVER HOSTILE TERRITORY. MODIFICATIONS INCLUDE THE INSTALLATION OF ARMOR AND A TAT-102K TURRET FOR THE GAU-2B/A MINIGUN.</p>	<table border="1"> <thead> <tr> <th><u>LOADING</u></th> <th><u>LBS.</u></th> <th><u>L.F.</u></th> </tr> </thead> <tbody> <tr> <td>EMPTY (1) (A)</td> <td>8354</td> <td></td> </tr> <tr> <td>BASIC (2)</td> <td>8713</td> <td></td> </tr> <tr> <td>DESIGN</td> <td>9876</td> <td>2.6</td> </tr> <tr> <td>OVERLOAD (3)</td> <td>12500</td> <td>2.05</td> </tr> <tr> <td>MAX. T.O.</td> <td>12500</td> <td>2.05</td> </tr> <tr> <td>MAX. LANDING</td> <td>12500</td> <td>2.05</td> </tr> </tbody> </table> <p>(1) INCLUDES ARMOR AND LISTED ELECTRONICS. (2) INCLUDES TAT-102K. (3) INCLUDES SIDE GUNS, AMMO AND 230 LBS OF SAR EQUIPMENT.</p>	<u>LOADING</u>	<u>LBS.</u>	<u>L.F.</u>	EMPTY (1) (A)	8354		BASIC (2)	8713		DESIGN	9876	2.6	OVERLOAD (3)	12500	2.05	MAX. T.O.	12500	2.05	MAX. LANDING	12500	2.05
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<p><b>ELECTRONICS</b></p>	<p><b>DEVELOPMENT</b></p>	<p><b>FUEL AND OIL</b></p>																																	
<p>DUAL UHF RADIO SET . . . . . AN/ARC-52 RADAR IDENT . . . . . AN/APX-6B TACAN RADIO . . . . . AN/ARN-52V DIRECTION FINDER (UHF) . . . . . AN/ARA-25 RADAR ALTIMETER . . . . . AN/APN-117 COMPASS . . . . . MA-1 ASE ICS . . . . . AN/AIC-14 SECURE SPEECH . . . . . KY-28 CODER GROUP . . . . . AN/APA-89</p> <p>PROVISIONS: GROUND SPEED SYSTEM . . . . . AN/APN-130</p>	<p>FIRST FLIGHT . . . . . DECEMBER 1968 SERVICE USE . . . . . FEBRUARY 1970</p>	<table border="1"> <thead> <tr> <th><u>GAL.</u></th> <th><u>NO. TANKS</u></th> <th><u>LOCATION</u></th> </tr> </thead> <tbody> <tr> <td>276*</td> <td>4</td> <td>FUSELAGE</td> </tr> <tr> <td>120</td> <td>2 (AUX)</td> <td>EXTERNAL</td> </tr> </tbody> </table> <p>FUEL GRADE - JP-4/JP-5 FUEL SPEC - MIL-T-5624 *SELF-SEALING</p> <p><b>OIL</b></p> <p>ENGINE (GAL.) . . . . . 8.4 SPEC: MIL-L-23699 TRANSMISSION (GAL.) . . . . . 4.0 SPEC: MIL-L-23699</p>	<u>GAL.</u>	<u>NO. TANKS</u>	<u>LOCATION</u>	276*	4	FUSELAGE	120	2 (AUX)	EXTERNAL																								
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	<p><b>DIMENSIONS</b></p> <p><u>MAIN ROTOR</u></p> <p>DISC AREA . . . . . 1520.5 SQ. FT. BLADE AREA . . . . . 158.3 SQ. FT. NO. OF BLADES . . . . . 4 DIAMETER . . . . . 44' 0" LENGTH (BLADES FOLDED) . . . . . 38' 4" HEIGHT (MAX.) . . . . . 15' 7" TREAD . . . . . 10' 10" STABILIZER AREA . . . . . 14.5 SQ. FT.</p>	<p><b>ACCOMMODATIONS</b></p> <p>PILOT . . . . . 1 CO-PILOT . . . . . 1 CREWMEN . . . . . 2</p> <p>OR</p> <p>PILOT . . . . . 1 CO-PILOT . . . . . 1 ATTENDANT . . . . . 1 LITTERS . . . . . 2</p> <p>RESCUE HOIST CAP . . . . . 600 LB CARGO HOOK CAP . . . . . 4000 LB AFT CABIN VOLUME . . . . . 172 CU.FT. DEAD WEIGHT CARGO FLOOR LIMIT FOR 3G L.F. . . . . 200 LB/SQ.FT.</p>																																	

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	① UTILITY	② OVER WATER ARMED RESCUE	③ INLAND ARMED RESCUE	④ FERRY
TAKE-OFF WEIGHT (E) LB.	11067	12500	12500	11990
FUEL INTERNAL/EXTERNAL (JP-5) LB.	1877/-	1373/816	1373/816	1877/816
PAYLOAD (A) LB.	-/800	338/1138	338/738	-
DISC LOADING LB./SQ.FT.	7.3	8.2	8.2	7.9
VERTICAL RATE OF CLIMB AT S.L. (B) FPM.	1600	800	800	1080
ABSOLUTE HOVERING CEILING (OGE) (C) FT.	11300	7300	7300	8700
MAX. RATE OF CLIMB AT S.L. (B) FPM.	2120	1770	1770	1890
OEI SERVICE CEILING (100 FPM) (C) (D) FT.	9100	5500	5500	6800
SPEED AT S.L. (B) KN.	139	130	130	133
MAX. SPEED/ALTITUDE (B) KN/FT.	141/2100	130/SL	130/SL	134/700
COMBAT RADIUS N.MI.	100	108	91	-
AVERAGE CRUISING SPEED KN.	125	112	116	-
CRUISING ALTITUDE FT.	5000	5000	5000	-
RANGE N.MI.	217	238	-	320
AVERAGE CRUISING SPEED KN.	125	116	-	110
CRUISING ALTITUDE FT.	5000	5000	-	5000/10000
MAXIMUM ENDURANCE HRS.	2.2	2.5	-	-
ENDURANCE SPEED KN.	70	70	-	-
ENDURANCE ALTITUDE FT.	SL	SL	-	-

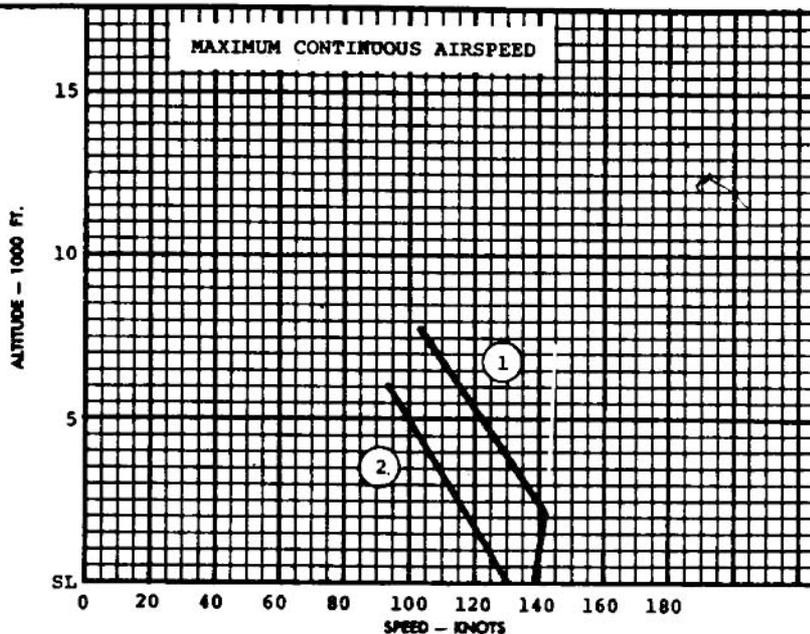
## NOTES

- (A) OUT/RETURN PAYLOAD FOR RADIUS MISSIONS  
 (B) MAXIMUM CONTINUOUS TORQUE  
 (C) MILITARY POWER  
 (D) ONE ENGINE INOPERATIVE  
 (E) THE TAKE-OFF WEIGHT OF ARMED RESCUE MISSIONS INCLUDE  
 4 MAN CREW, SIDE GUNS, AMMO AND 230 LBS OF SAR EQUIPMENT

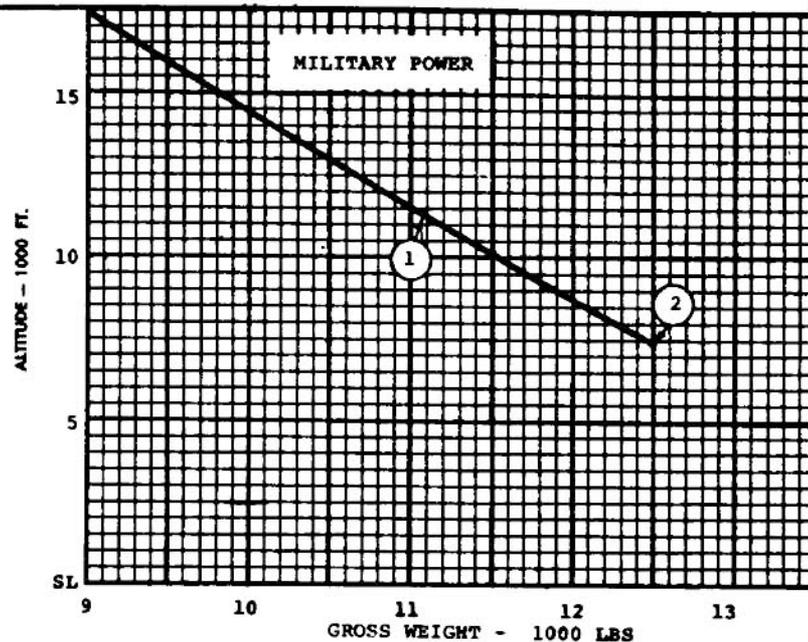
PERFORMANCE BASIS: NATC AND KAMAN FLIGHT TEST DATA

ENGINE SPECIFICATION POWER AND FUEL FLOWS

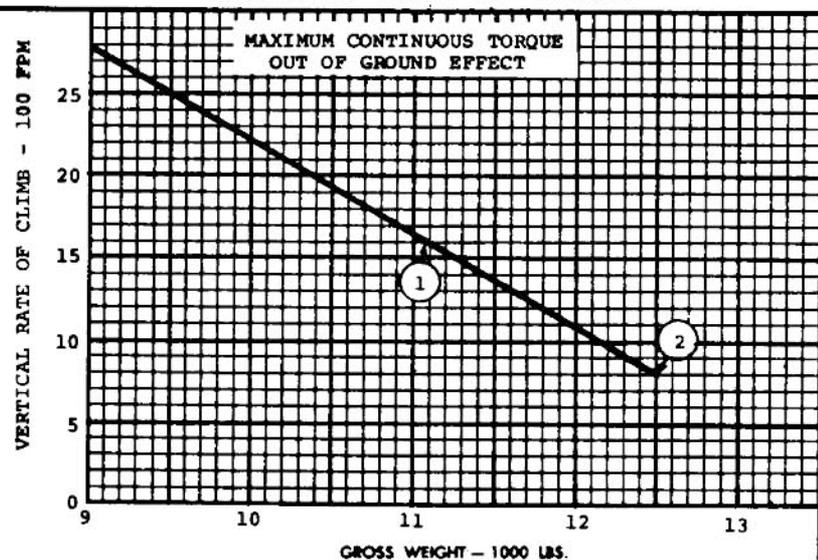
### SPEED



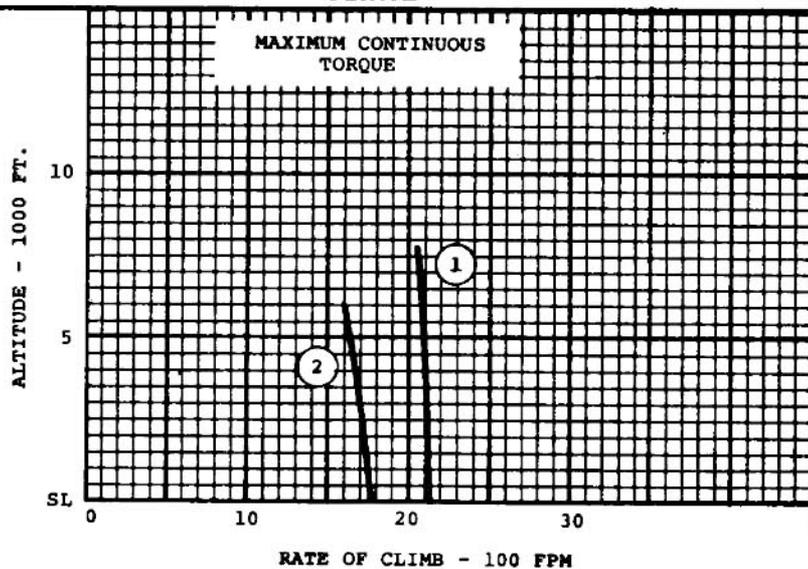
### HOVER CEILING



### VERTICAL RATE OF CLIMB

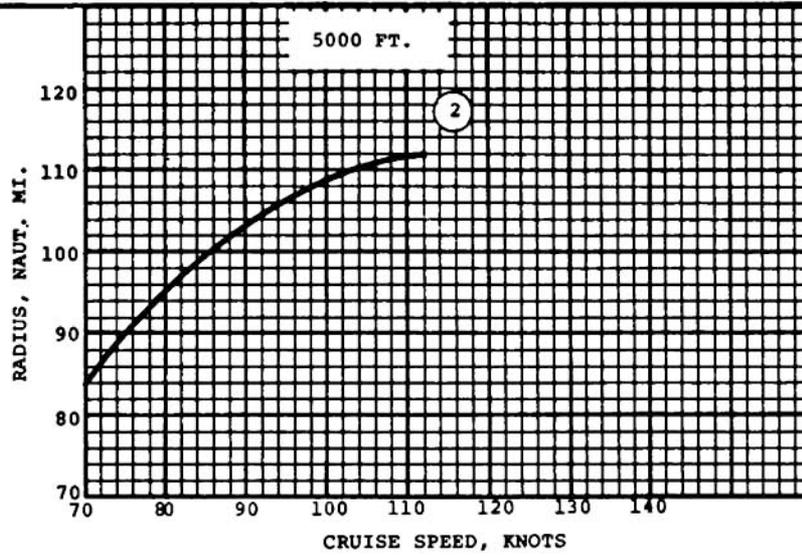


### CLIMB

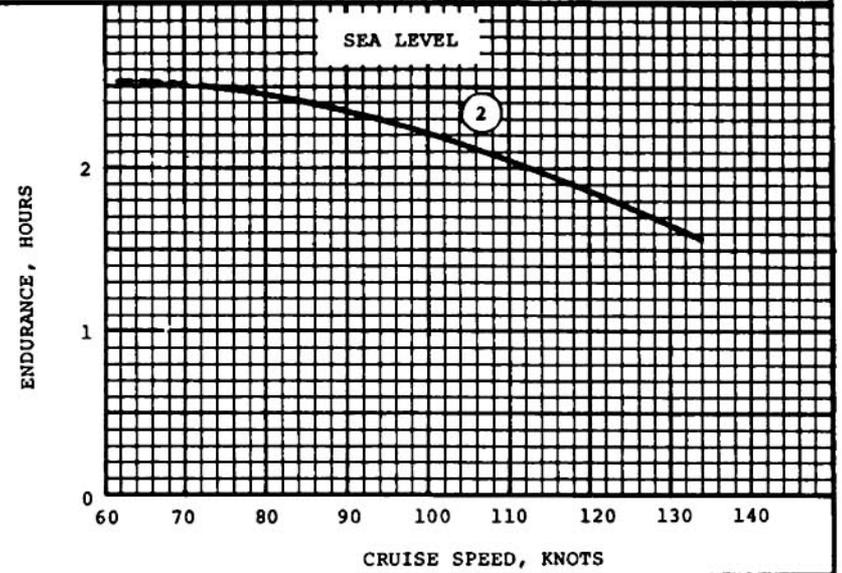


○ LOADING CONDITION COLUMN NUMBER

## RADIUS



## ENDURANCE



LOADING CONDITION COLUMN NUMBER

NOTES

① ②

UTILITY/OVER WATER ARMED RESCUE  
RADIUS MISSION

WARM-UP AND TAKE-OFF: 2 MINUTES  
AT SEA LEVEL AT MAXIMUM  
CONTINUOUS TORQUE

CLIMB: ON COURSE TO 5000 FT

CRUISE OUT: AT 5000 FT AND AT  
SPEED FOR BEST RANGE

DESCEND: TO SEA LEVEL

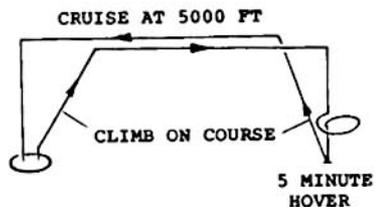
HOVER: 5 MINUTES AT SEA LEVEL  
WHILE PICKING UP 800 LB PAYLOAD

CLIMB: ON COURSE TO 5000 FT

CRUISE BACK: AT 5000 FT AND AT  
SPEED FOR BEST RANGE

DESCEND: TO SEA LEVEL

RESERVE: 10 PERCENT OF INITIAL  
FUEL



① ② ④

RANGE MISSION

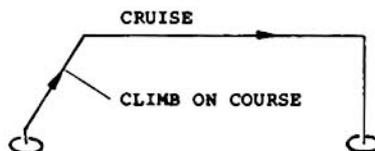
WARM-UP AND TAKE-OFF: 2 MINUTES  
AT SEA LEVEL AT MAXIMUM  
CONTINUOUS TORQUE

CLIMB: ON COURSE TO CRUISE  
ALTITUDE

CRUISE: AT SPEED FOR BEST RANGE

DESCEND: TO SEA LEVEL

RESERVE: 10 PERCENT OF INITIAL  
FUEL



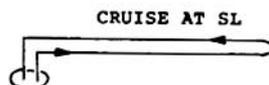
① ②

ENDURANCE MISSION

WARM-UP AND TAKE-OFF: 2 MINUTES  
AT SEA LEVEL AT MAXIMUM CONTINUOUS  
TORQUE

CRUISE: AT SPEED FOR MAXIMUM  
ENDURANCE AT SEA LEVEL

RESERVE: 10 PERCENT OF INITIAL  
FUEL



③

INLAND ARMED RESCUE  
RADIUS MISSION

WARM-UP AND TAKE-OFF: 2 MINUTES  
AT SEA LEVEL AT MAXIMUM CONTINU-  
OUS TORQUE. TAKE-OFF IS FROM  
DESTROYER 10 N. MI. FROM SHORE.

LOITER: 20 MINUTES AT SPEED FOR  
MAXIMUM ENDURANCE AT SEA LEVEL  
NEAR SHORE.

CLIMB: TO 5000 FT. FINAL ALTITUDE  
IS REACHED WHEN CROSSING SHORE.

CRUISE: AT MAXIMUM SPEED.

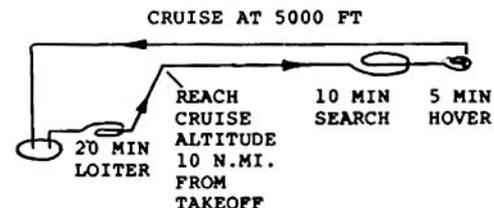
SEARCH: 10 MINUTES AT SPEED FOR  
MAXIMUM ENDURANCE.

HOVER: 5 MINUTES WHILE PICKING UP  
TWO RESCUEES, (400 LBS)

CRUISE: AT MAXIMUM SPEED

DESCEND: TO SEA LEVEL

RESERVE: 10 PERCENT OF INITIAL FUEL



○ LOADING CONDITION COLUMN NUMBER