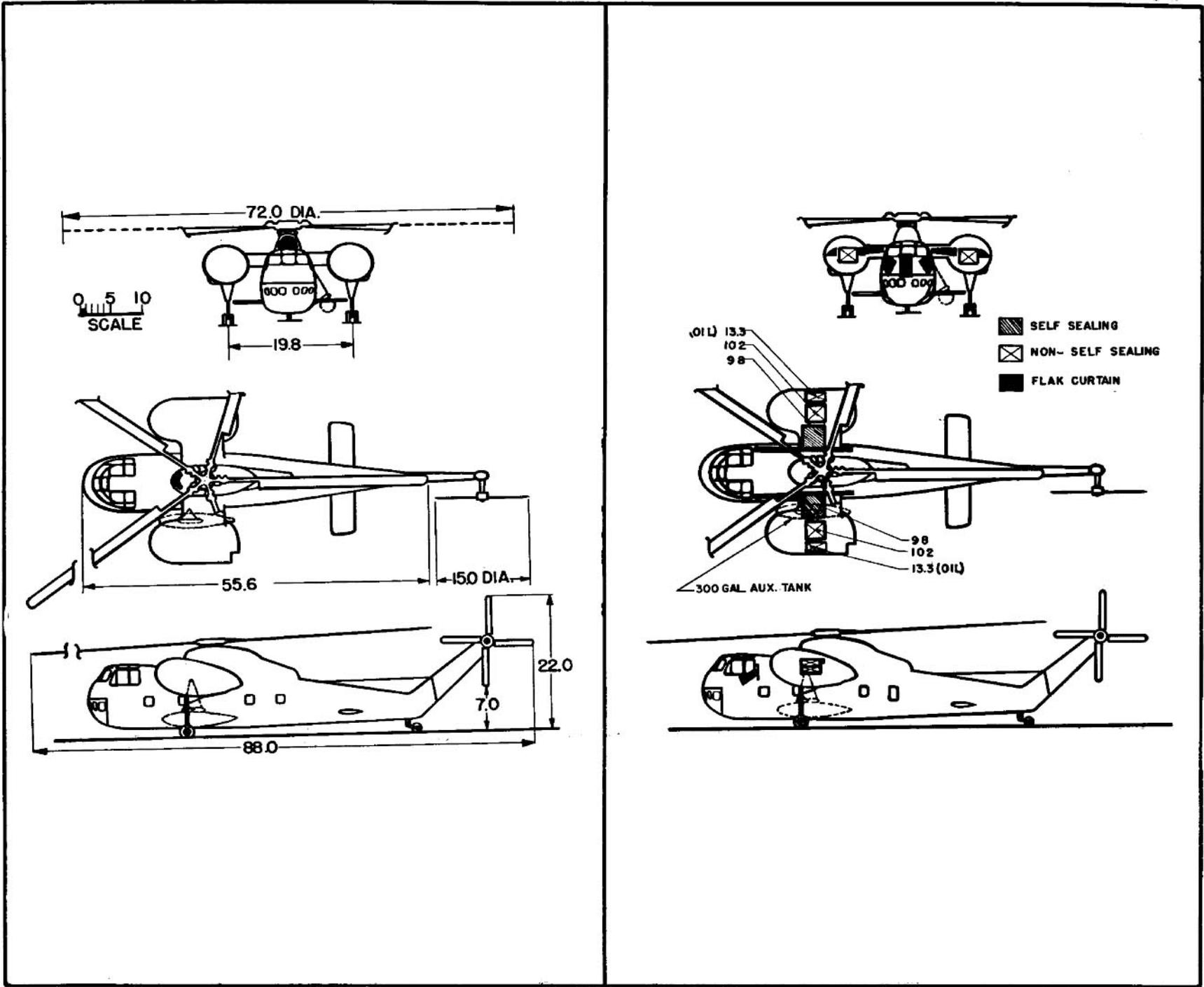




STANDARD AIRCRAFT CHARACTERISTICS
CH-37C



POWER PLANT

NO. & MODEL (2) R-2800-54
 MFR Pratt & Whitney
 SUPERCHARGER 1 Stage, 1 Speed
 ROTOR GEAR RATIO 14.01 to 1
 TAIL ROTOR RATIO 2.9 to 1

RATINGS

	<u>BHP</u>	@	<u>RPM</u>	@	<u>ALT</u>
T.O.	2100		2700		5000
NORM.	1900		2600		7000

Spec. No. N-8143B

ACCOMMODATIONS

PILOT 1
 CO-PILOT 1
 COMBAT TROOPS 20
 or
 LITTERS 16

MAXIMUM CARGO CAPACITY ... 10,000 lbs.

MISSION AND DESCRIPTION

The primary mission of the model HR2S-1 helicopter is to transport assault troops and equipment from ships or land bases to a target and return. It is suitable for operation from aircraft carriers (except for CVE and CVL class) and from land bases.

The HR2S-1 has a twin engine, single main rotor with an automatic torque compensation tail rotor and a controlled stabilizer. It incorporates a dual control system. The mechanical flight controls are augmented by a primary and secondary servo system with an automatic stabilization device.

A blade flapping restrainer and a rotor brake are provided for starting and stopping the rotor in winds up to 60 knots.

There are provisions for an auxiliary fuel system to allow installation of two-300 gallon external tanks or two-150 gallon tanks.

DEVELOPMENT

First Flight December 1953
 Service Use June 1956

DIMENSIONS

DISC AREA 4017.5 sq. ft.
 BLADE AREA 261.5 sq. ft.
 NO. OF BLADES(MAIN) 5
 ROTOR DIA. 72' - 0"
 LENGTH 58' - 5"
 HEIGHT 16' - 8"
 (tail rotor folded and tail rotor positioned)
 TREAD 19' - 9"
 STABILIZER AREA 111.7 sq. ft.

WEIGHTS

<u>LOADING</u>	<u>LBS</u>	<u>L.F.</u>
EMPTY	21,502
BASIC	21,502
DESIGN	31,000	2.5
COMBAT (Basic)	28,706	2.7
T.O. (Normal)	31,000	2.5
T.O. (Overload)	31,000	2.5
MAX. LANDING	31,000

All weights are actual

FUEL AND OIL

<u>GALS.</u>	<u>NO. TANKS</u>	<u>LOCATION</u>
196	2	Nacelles
204	2	Wing *
600	2	Fuse. Sides (ext.)

* Self Sealing

FUEL GRADE 115/145
 FUEL SPEC (applicable) MIL-F-5572

OIL

CAPACITY (Gals.) 26.6
 GRADE 1100
 SPEC (applicable) MIL-O-6082

ELECTRONICS

CODER GROUP AN/APA-89
 UHF TRANS/RECOR AN/ARC-27A or
 AN/ARC-55
 MHF TRANS/RECOR AN/ARC-2A
 ICS AN/AIC-4A
 DIR. FINDER GROUP AN/ARA-25
 RADAR ALTIMETER AN/APN-22
 TRANS/RECOR AN/APX-6B
 RADIO SET (TACAN) AN/ARN-21
 RADIO RECEIVER AN/ARN-41A
 FM COMMUNICATIONS SET AN/ARC-44

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) ASSAULT TRANSPORT (Normal) 1 Ext. Fuel Tank	(2) CARGO (Overload)	(3) FERRY Maximum Fuel 2 Ext. Fuel Tanks		
TAKE-OFF WEIGHT	lb.	31,000	31,000	28,533		
Fuel	internal/external	2400/1527	2400/0	2400/3600		
Payload	lb.	4500	6673	0		
Disc loading	lb./sq.ft.	7.61	7.61	7.00		
Vertical rate of climb at S.L.	(A) fpm.	0	0	950		
Absolute hovering ceiling	(A) ft.	0	0	5400		
Max. rate of climb at S.L.	(B) fpm.	1280	1280	1580		
Service ceiling (100 fpm)	(B) ft.	11,500	11,500	13,800		
Speed at S.L.	(B) kn.	115	119	121		
Max. speed/altitude	(B) kn./ft.	115/S.L.	119/S.L.	121/S.L.		
Combat range	n.mi.	--	--	335		
Average cruising speed	kn.	--	--	100		
Cruising altitude	ft.	--	--	0		
Combat radius	n.mi.	100	71	--		
Average cruising speed	kn.	100	100	--		

NOTES

(A) TAKE-OFF RATED POWER

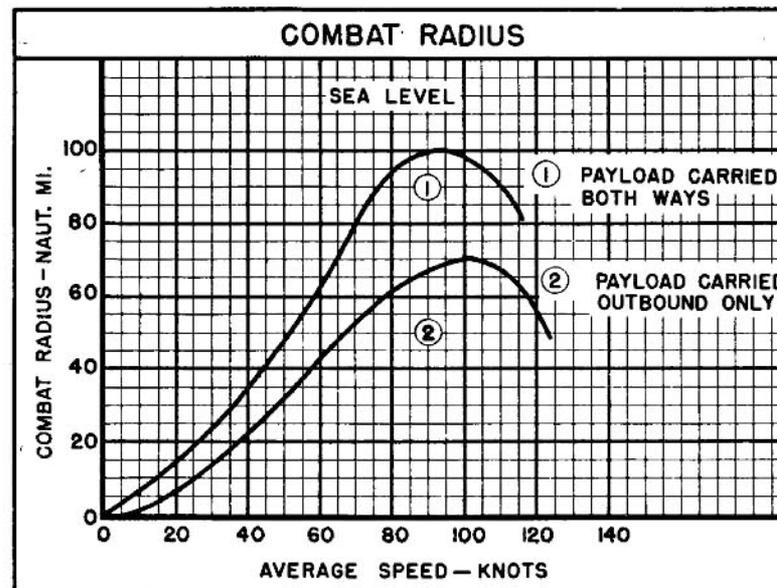
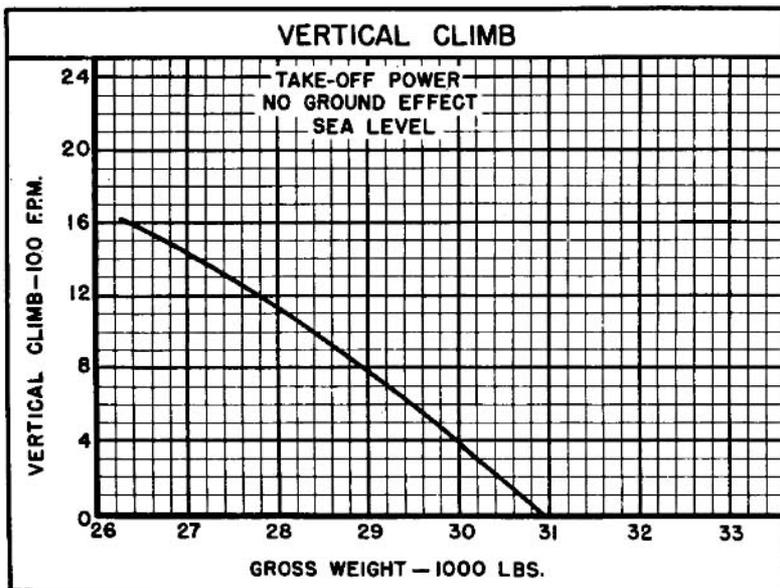
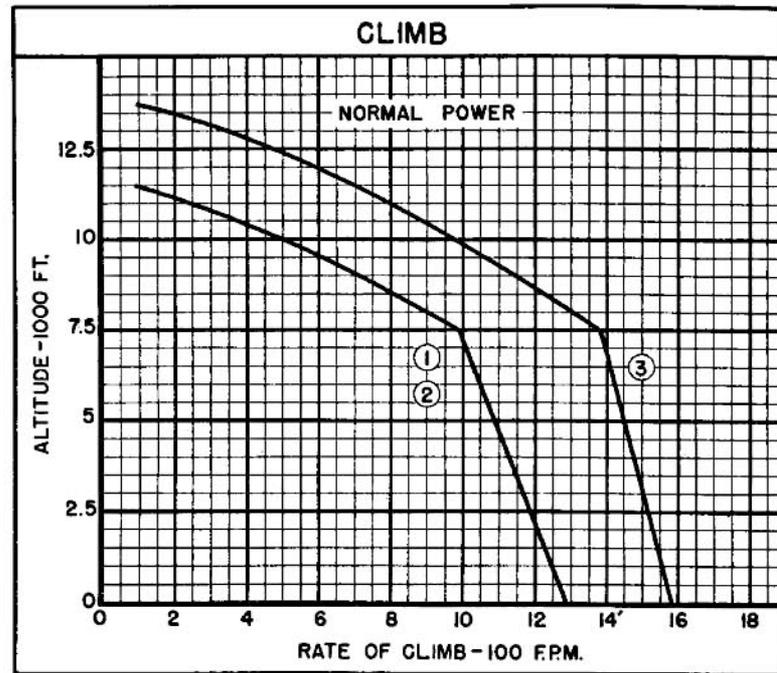
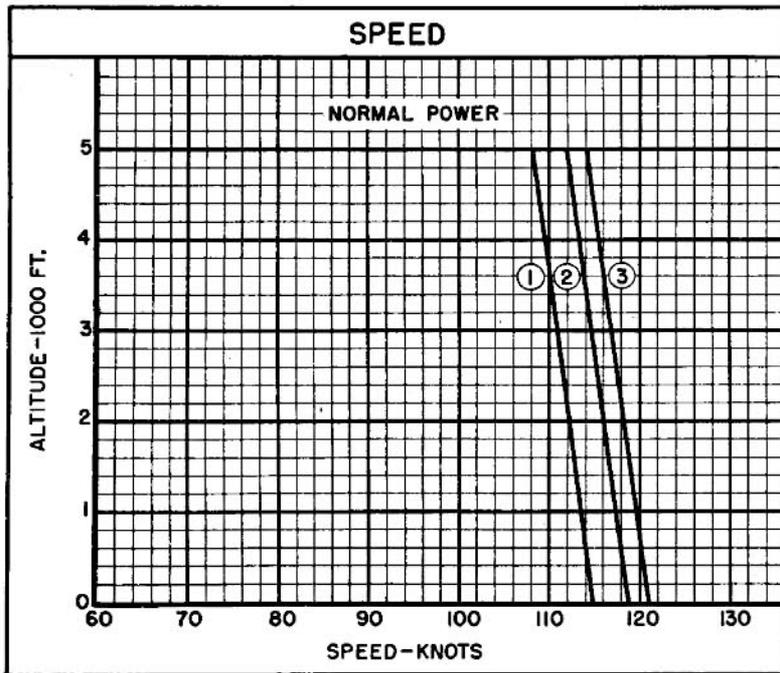
(B) NORMAL RATED POWER

PERFORMANCE BASIS: NATESTCEN flight test data.

COMBAT RANGE and RADIUS are based on NATESTCEN fuel consumption data.

All performance is out of ground effect.

Maximum airspeed limited by blade tip stall and Mach Number effects on rotor blades.



○ LOADING CONDITION COLUMN NUMBER