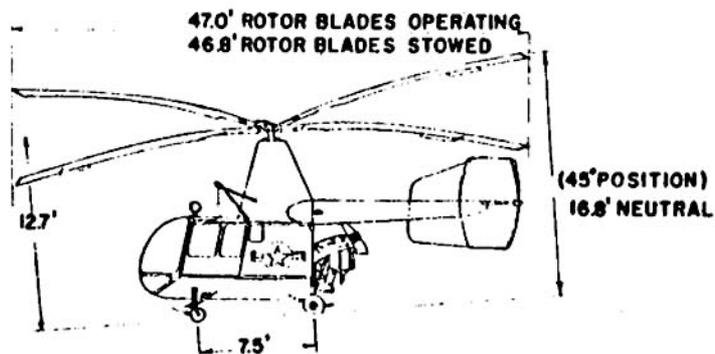
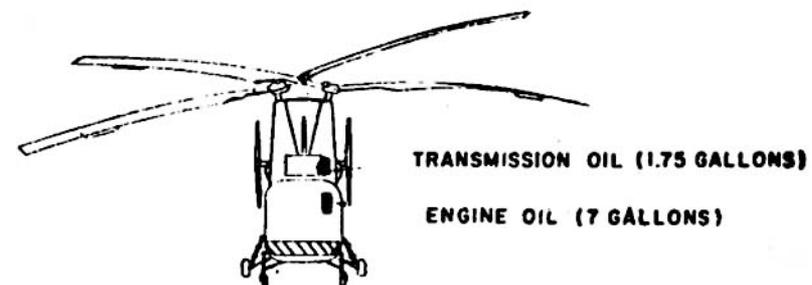
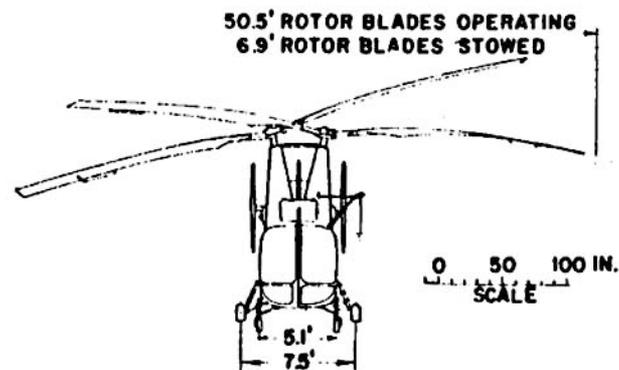
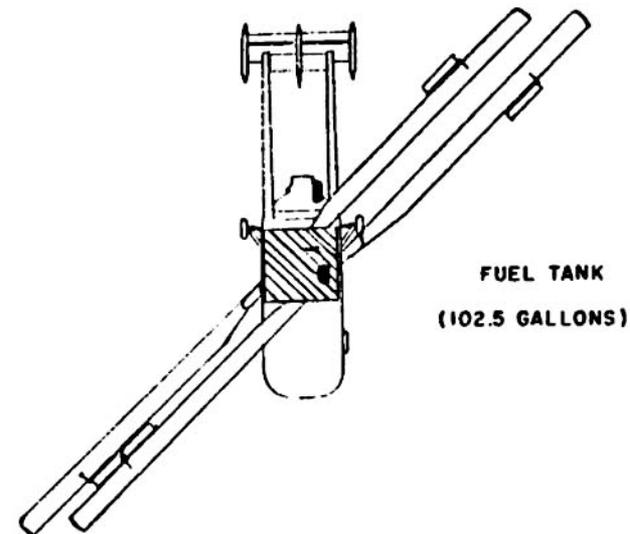
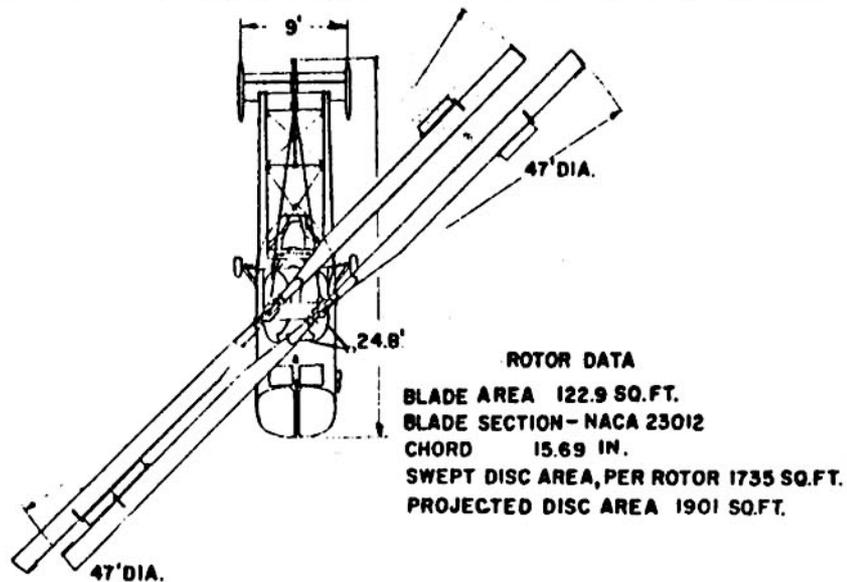




STANDARD AIRCRAFT CHARACTERISTICS  
UH-43C



DESCRIPTIVE ARRANGEMENT

TANKAGE INSTALLATION

## POWER PLANT

NO. & MODEL ..... (1)R-1340-52  
 MFR. .... Pratt & Whitney  
 SUPERCH ..... 1stg.1spd  
 IMPELLER RATIO ..... 10:1  
 ROTOR GEAR RATIO ..... 9.357:1

## RATINGS

	RHP	RPM	ALT
T.O. (5 MIN.)	600	2250	3000'
NORMAL	550	2200	5000'

Spec No. 1308A  
 of 10 April 1957

## ACCOMMODATIONS

Pilot ..... 1  
 Crewman ..... 1  
 Passengers ..... 3

or

Pilot ..... 1  
 Attendant ..... 1  
 Litters ..... 2

## CARGO

External Sling Capacity .... 1000 lbs.

## MISSION AND DESCRIPTION

The HUK-1 is a rescue, cargo, and utility helicopter performing missions such as air-sea rescue, cargo transport, and evacuation of wounded.

For the evacuation mission the co-pilot's seat is removed and two litters are carried internally plus an attendant. The port side of the nose bubble swings open for loading and unloading the litters.

The helicopter has two side-by-side intermeshing rotors of two blades which are controlled by means of aerodynamic servo control flaps. Twin tail booms and vertical stabilizers provide forward flight stability. A rescue hoist of 600 pounds capacity is installed on the fuselage. An external cargo sling capability is provided with a 1000 pound capacity. In-flight blade tracking is incorporated. Provisions are incorporated for positioning the rotor blades fore and aft parallel to the fuselage centerline to facilitate stowage.

## DEVELOPMENT

First Flight ..... February 1958  
 Fleet Delivery ..... May 1958

## DIMENSIONS

Span-Rotors Operating..... 50.5\* ft.  
 Rotor Blade Diameter..... 47.0\* ft.  
 Height..... 16.3\* ft.  
 Max. Wheel Tread ..... 7.5\* ft.  
 Horiz. Tail Span ..... 9.0\* ft.  
 Rotor Tip Grd Clearance..... 6.6\* ft.  
 (min at rest)  
 Blade Area..... 122.92 sq. ft.  
 Rotor Disc Area\* ..... 1901 sq. ft.

\*Projected

## WEIGHTS

LOADING	POUNDS	L.F.
Empty .....	4308	.....
Basic .....	4386	.....
Design .....	6203	3.00
Max. T.O. ....	6350	2.93
Max. Landing ..	6350	2.93

## FUEL AND OIL

GALS.	NO. TANKS	LOCATION
102	1	Fuselage

Fuel Grade ..... 91/96  
 Fuel Spec ..... MIL-F-5572B

## OIL

Engine Sect (gals)..... 7.0  
 Grade ..... 1100  
 Spec ..... MIL-L-6082B  
 Transmission (gals)..... 1.75  
 Grade ..... Medium  
 Spec ..... MIL-L-6086A

## ELECTRONICS

VHF Communications ..... AN/ARC-1  
 UHF Communications ..... AN/ARC-55  
 UHF Direction Finder ..... AN/ARA-25  
 Radio Set ..... AN/ARC-39  
 Radar Ident. .... AN/APX-6B  
 Coder Group ..... AN/APA-89  
 ADF ..... AN/ARN-59

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) Rescue/Utility 1 - PILOT 1 - CO-PILOT 3 - PASSENGERS	(2) CARGO 1 - PILOT			
TAKE-OFF WEIGHT	lb.	6117	6203			
Fuel	lb.	610	522			
Payload	lb.	600	1000			
Disc loading	lb./sq.ft.	3.52	3.57			
Vertical rate of climb at S.L.	(A) fpm.	600	505			
Absolute hovering ceiling	(A) ft.	5300	4750			
Max. rate of climb at S.L.	(B) fpm.	870	850			
Service ceiling (100 fpm)	(B) ft.	15300	14700			
Speed at S.L.	(B) kn.	89	88			
Max. speed/altitude	(B) kn./ft.	89/S.L.	88/S.L.			
Combat range	n.mi.	175	142			
Average cruising speed	kn.	65	63			
Cruising altitude	ft.	S.L.	S.L.			
Combat radius	n.mi.	80	—			
Average cruising speed outgoing/returning	kn/kn.	68/64	—			
Cruising altitude	ft.	S.L.	—			
Maximum endurance	hr.	3.10	2.54			
Average cruising speed	kn.	43	43			
Cruising altitude	ft.	S.L.	S.L.			

## NOTES

(A) TAKE-OFF POWER

(B) NORMAL POWER

PERFORMANCE based on NATESTGEN Evaluation of the HUK-1 extrapolated to the higher power ratings of P&W Spec. No. 1308A.

RANGE, RADIUS, and ENDURANCE are based upon flight test fuel consumption and engine specific fuel consumption increased 5%.

All performance out of Ground Effect

COMBAT RANGE MISSION

WARM-UP AND TAKE-OFF: 10 minutes at Normal Rated Power

CRUISE: At sea level at speed for best range

RESERVE: 10% of initial fuel load

COMBAT RADIUS MISSION

WARM-UP AND TAKE-OFF: 10 minutes at Normal Rated Power

CRUISE OUT: At sea level at speed for best range  
HOVER: 10 minutes out of ground effect at sea level—pick up survivors (3)

CRUISE BACK: At sea level at speed for best range

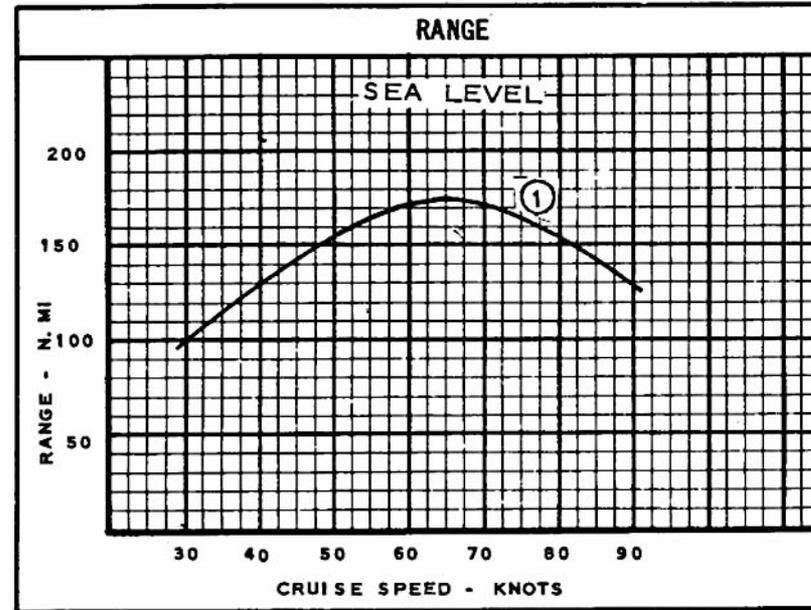
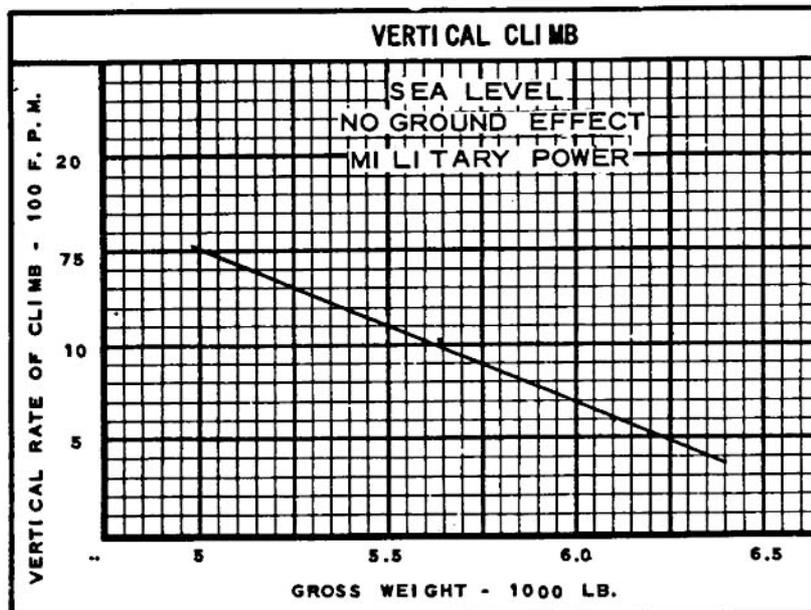
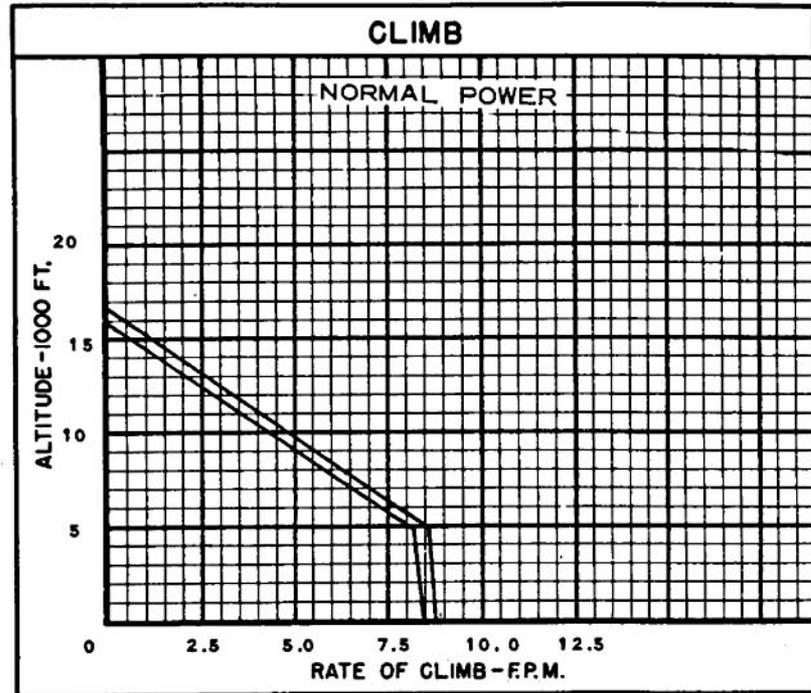
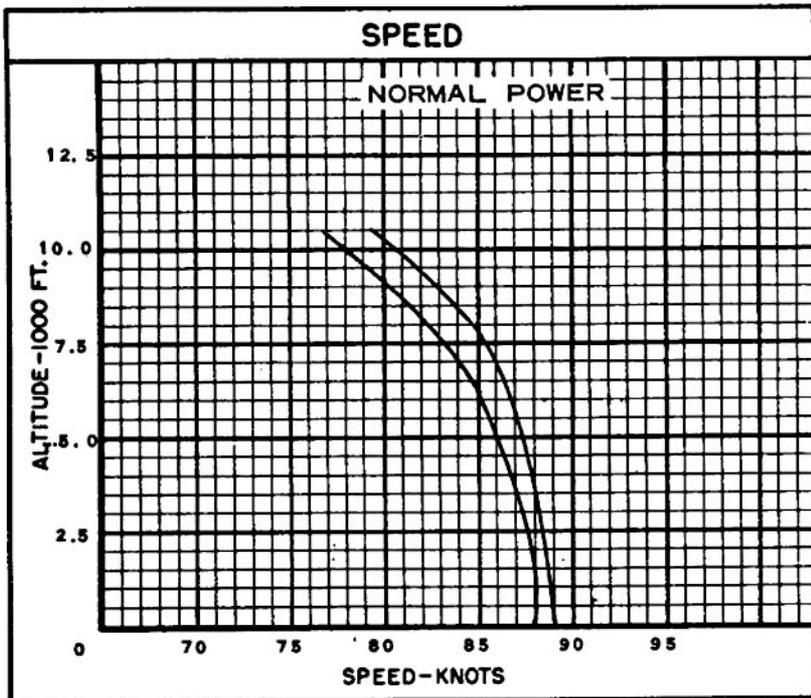
RESERVE: 10% of initial fuel load

MAXIMUM ENDURANCE MISSION

WARM-UP AND TAKE-OFF: 10 minutes at Normal Rated Power

CRUISE: At sea level at speed for maximum endurance

RESERVE: 10% of initial fuel load



○ LOADING CONDITION COLUMN NUMBER