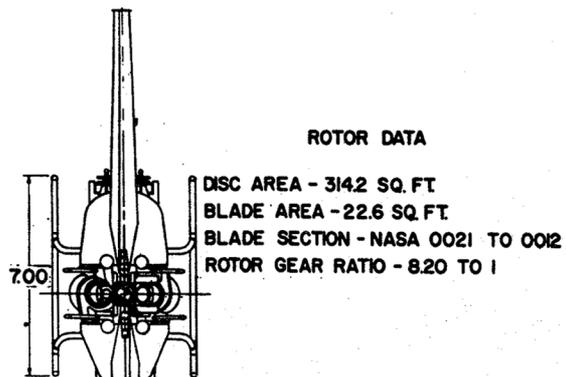
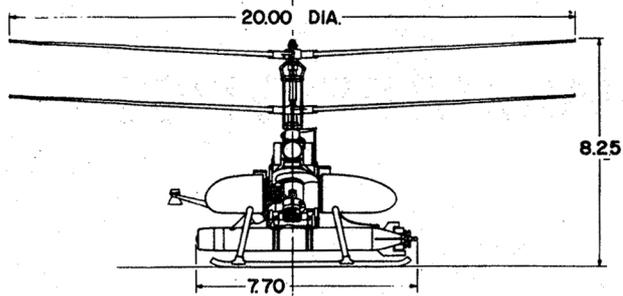
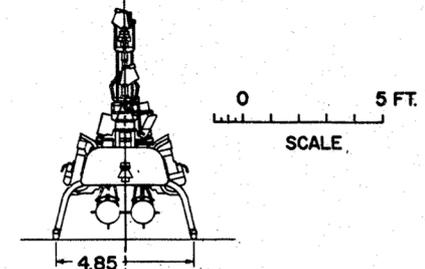


**STANDARD AIRCRAFT CHARACTERISTICS**  
**QH-50B**  
**GYRODYNE**



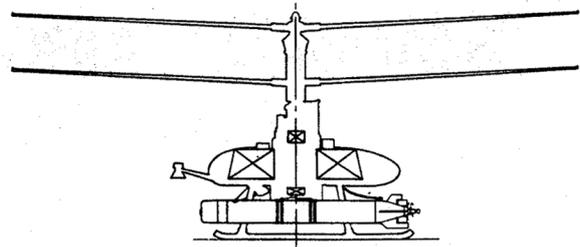
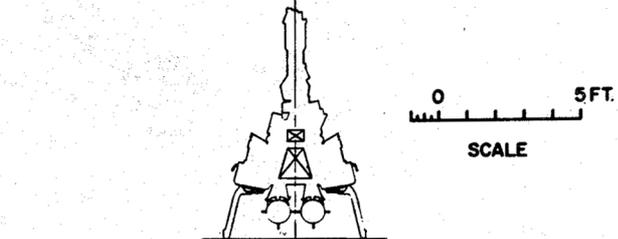
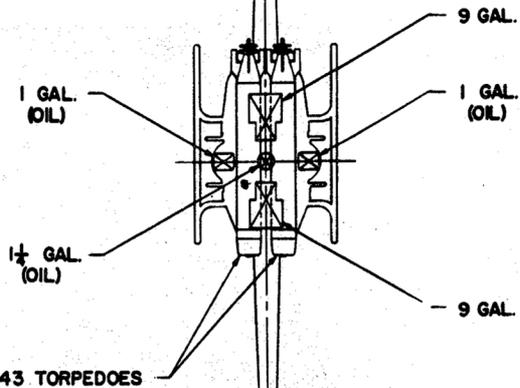
ROTOR DATA

DISC AREA - 314.2 SQ. FT.  
 BLADE AREA - 22.6 SQ. FT.  
 BLADE SECTION - NASA 0021 TO 0012  
 ROTOR GEAR RATIO - 8.20 TO 1



DESCRIPTIVE ARRANGEMENT

☒ NON SELF-SEALING TANKS



ARMAMENT & TANKAGE

**POWER PLANT**

ENGINE ..... (2) YO-95-4  
 MFR ..... Gyrodyne-Porsche  
 TYPE ..... 4 cyl., 4 cycle

**RATINGS**

	BHP	RPM	ALT
T.O.	72	4500	SSL
NORM.	72	4500	SSL

Model Spec. No. 2 of 28 Jan  
 1959, revised 5 Aug 1959

**ORDNANCE**Torpedoes:

500 lb. .... 1  
 or  
 MK 43 ..... 2

Max. Load Capacity  
 - 530 lbs.

**MISSION AND DESCRIPTION**

The Model DSN-2 Drone is a remotely controlled ASW Helicopter, designed to carry a 500 lb. weapon (torpedo-type) and be capable of launching this weapon as directed by remote control. An alternate design loading (overload condition) is to carry two MK43 Torpedoes, each weighing 266 lbs.

The drone incorporates two two-bladed coaxial rotors of the semi-rigid (see-saw) type. The blades are of laminated wood construction incorporating taper in planform and thickness and 12° negative twist. Attitude is completely controllable through the rotors by conventional cyclicpitch control; yaw control is achieved by means of rotor blade tip air (drag) brakes.

Two Gyrodyne-Porsche YO-95-4 four cylinder, four cycle reciprocating engines, rated at 72 hp (after cooling) at 4500 rpm at sea level, are incorporated in the DSN-2. Engine cooling is provided by a fan.

Service use of this drone weapons system is not presently contemplated, although it will be used for purposes of testing and checking out the avionics equipment and remote control system to be incorporated in the DSN-3.

**DEVELOPMENT**

First Flight ..... July 1960

**DIMENSIONS**

DISC AREA ..... 314.2 sq. ft.  
 BLADE AREA ..... 22.6 sq. ft.  
 ROTOR DIAMETER ..... 20' - 0"  
 LENGTH ..... 20' - 0"  
 HEIGHT ..... 8' - 3"  
 TREAD ..... 4' - 10"

**WEIGHTS**

LOADINGS	LBS.
EMPTY .....	813
NORMAL .....	1450
OVERLOAD .....	1500

All weights are estimated

**FUEL AND OIL**

NO. TANKS	GALS.	LOCATION
2	18	Fuselage
GRADE .....		96/96
SPEC .....		MIL-F-5572B

**OIL**

CAPACITY .....	3.25 gals
GRADE .....	Symbol 9110/9250
SPEC .....	MIL-L-9000D

**ELECTRONICS**

Gyrodyne-Lear automatic stabiliz-  
 ation and remote control equipment

(Nomenclature not yet  
 available)

PERFORMANCE SUMMARY					
TAKE-OFF LOADING CONDITION		(1) NORMAL 1-500# Tor- pedo	(2) OVERLOAD 2-MK 43		
TAKE-OFF WEIGHT	lb.	1450	1500		
Fuel	lb.	95	95		
Payload	lb.	500	530		
Disc loading	lb./sq.ft.	4.62	4.78		
Vertical rate of climb at S.L. (A)	fpm.	640	420		
Absolute hovering ceiling (A)	ft.	2950	1850		
Max. rate of climb at S.L. (A)	fpm.	1160	1040		
Service ceiling (100 fpm) (A)	ft.	8600	7600		
Speed at S.L. (A)	kn.	76.8	76.0		
Max. speed/altitude (A)	kn./ft.	76.8/S.L.	76.0/S.L.		
MAX. range	n.mi.	85.3	--		
Average cruising speed	kn.	65	--		
Cruising altitude	ft.	S.L.	--		
Combat radius	n.mi.	32.0	31.2		
Average cruising speed	kn.	77.5	76.8		
Cruising altitude	ft.	S.L.	S.L.		
Max. endurance	hrs.	--	1.60		
Average cruising speed	kn.	--	42		
Cruising altitude	ft.	--	S.L.		

## NOTES

(A) Normal Rated Power ( Take-off Power)

PERFORMANCE is based on calculations modified by contractor flight data of the Model XRON-1 Rotorcycle (17' rotor dia.)

COMBAT RADIUS, RANGE, and ENDURANCE are based on engine specific fuel consumption increased 5%.

All performance is out of ground effect.

COMBAT RADIUS MISSION

Warm-up and Take-off: 1 min at NRP at Sea Level

Cruise out: at Vmax at Sea Level

Hover: 12 min at Sea Level

Drop Weapon: No fuel consumed, no distance gained

Cruise back: at Vmax at Sea Level

Reserve: 10% of initial fuel load

MAX. RANGE MISSION

Warm-up and Take-off: 1 min at NRP at Sea Level

Cruise: at speed for best range at Sea Level

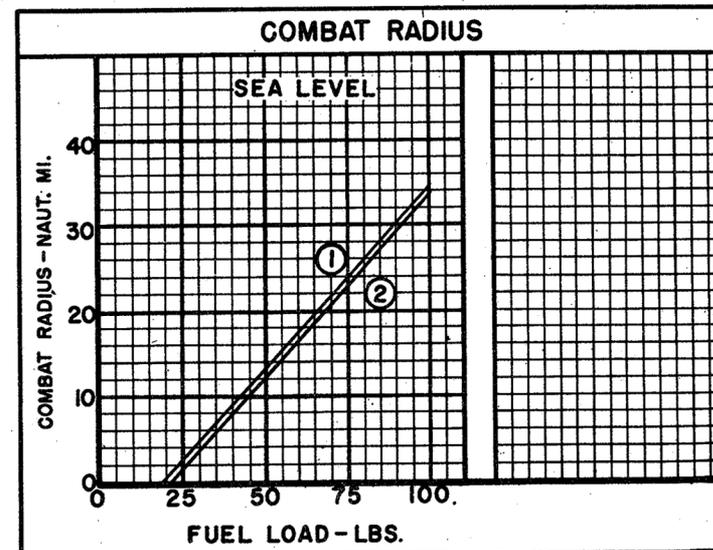
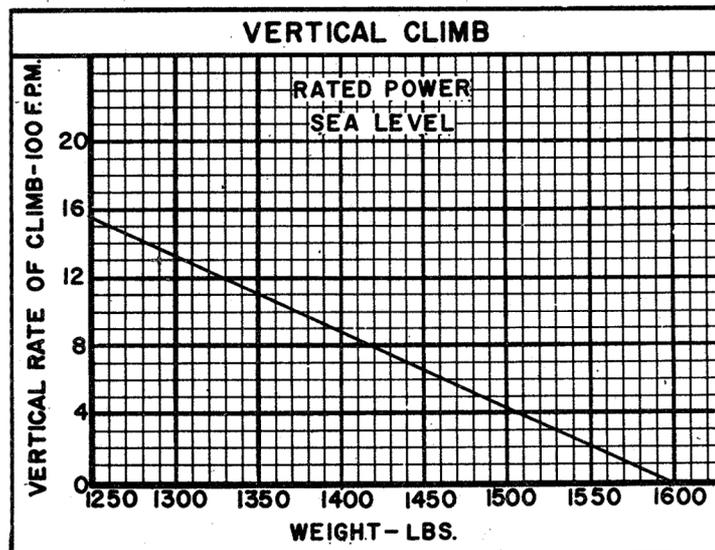
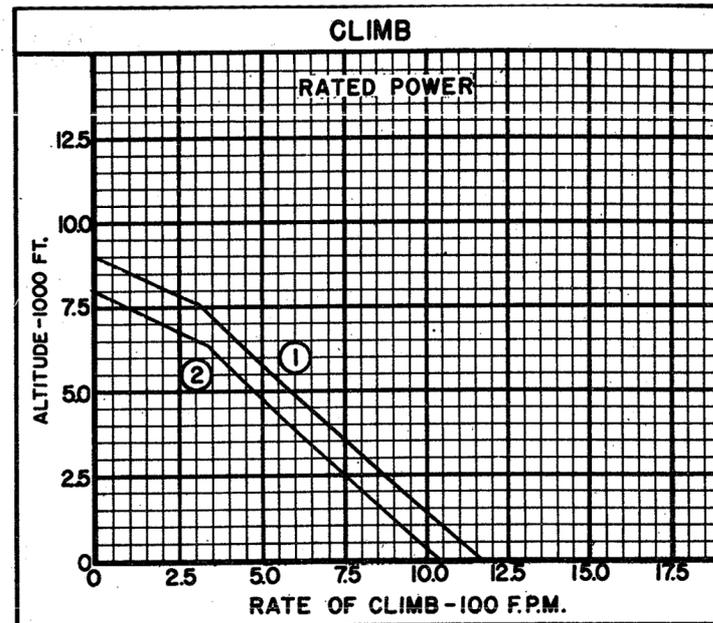
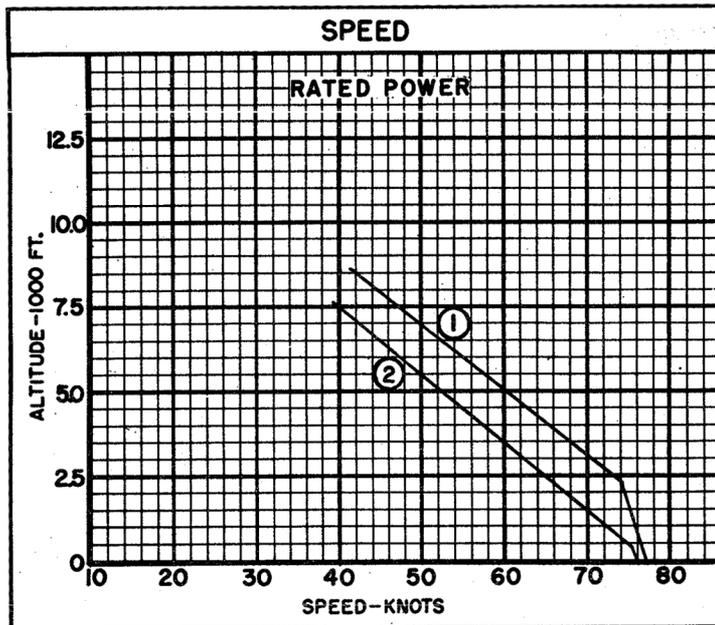
Reserve: 10% of initial fuel load

MAX. ENDURANCE MISSION

Warm-up and Take-off: 1 min at NRP at Sea Level

Cruise: at speed for best endurance at Sea Level

Reserve: 10% of initial fuel load



○ LOADING CONDITION COLUMN NUMBER