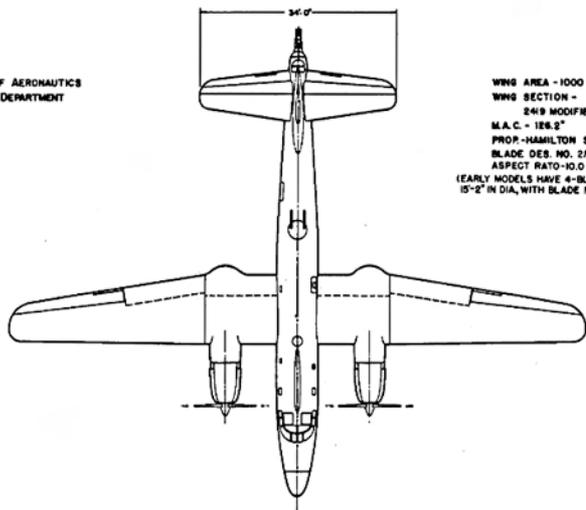


# STANDARD AIRCRAFT CHARACTERISTICS

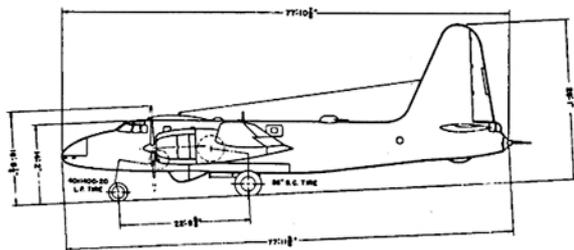
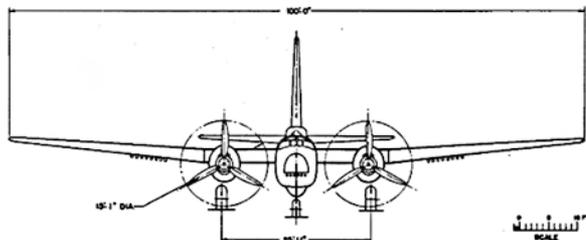
## P2V-2 "NEPTUNE"

LOCKHEED

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT



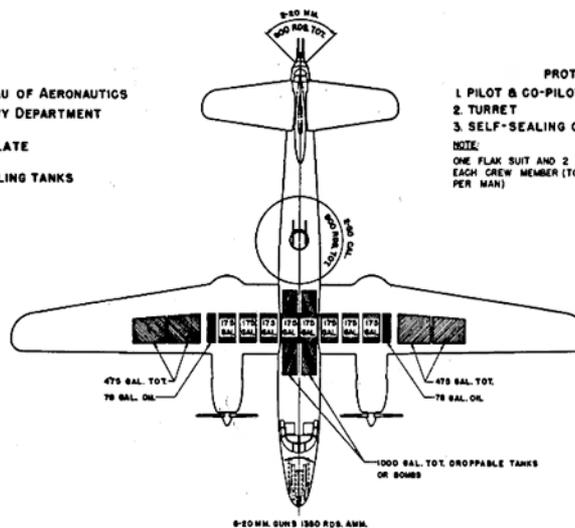
WING AREA - 1000 SQ. FT.  
WING SECTION -  
2419 MODIFIED B 4410.5  
M.A.C. - 126.2"  
PROP. - HAMILTON STD.  
BLADE DES. NO. 27TK3-245  
ASPECT RATIO - 10.0  
(EARLY MODELS HAVE 4-BLADED PROP.  
15'-2" IN DIA, WITH BLADE NO. 6801A-G)



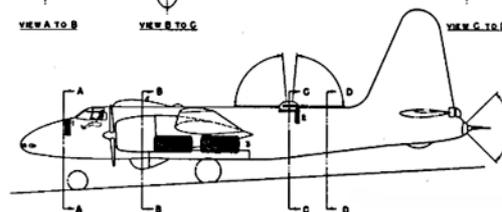
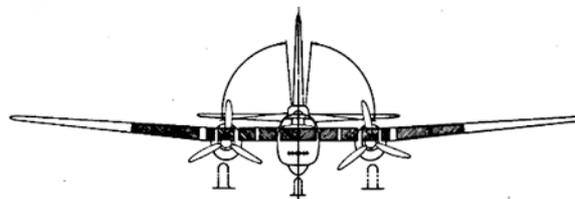
DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

- ARMOR PLATE
- SELF-SEALING TANKS



PROTECTION  
1 PILOT & CO-PILOT F.W'D. 200 LBS.  
2 TURRET 150 LBS.  
3 SELF-SEALING CELLS 3000 LBS. EST.  
NOTE:  
ONE FLAK SUIT AND 2 FLAK CURTAINS FOR  
EACH CREW MEMBER (TOTAL WEIGHT 40 LBS.  
PER MAN)



ARMAMENT & TANKS

Standard Aircraft Characteristics NAVAER 13358 (REV. 1-49)

**MISSION AND DESCRIPTION**

The P2V-2 airplane is a landbased anti-submarine and anti-surface vessel long range patrol airplane. It is a development of the P2V-1. Prototype flight date, January 1947. Service use in June, 1947. Twin engine seven-place monoplane, tricycle alighting gear, all metal structure, modified Fowler type wing flaps, aileron droop, "Varicam" stabilizer, dual cockpit flight controls, thermal anti-icing of wing and tail surfaces.

**DIMENSIONS**

WING AREA.....1,000 sq. ft.  
SPAN.....100' - 0"  
LENGTH.....77' - 11"  
HEIGHT.....28' - 1"  
TREAD.....25' - 11"  
M.A.C.....10' - 6"

**WEIGHTS**

Loadings	Lbs.	L.F.
EMPTY.....	34,158.....	
BASIC.....	36,700.....	
DESIGN.....	54,000.....	2.6
COMBAT.....	48,514.....	2.7
MAX.T.O.....	62,000.....	2.3
MAX.LAND.....	54,000.....	

All weights are actual.

**FUEL AND OIL**

Gals.	No. Tanks	Location
950	4	Wing, S.S.
1,400	8	Fuse., S.S.
1,000	2	Fuse., Drop

FUEL GRADE....100/130  
FUEL SPEC.....AN-F-48

**OIL**

CAPACITY (Gals.).....156  
GRADE.....1100  
SPEC.....AN-O-8

**ELECTRONICS**

MHF TRANSMITTER....AN/ART-13  
MHF RECEIVER.....AN/ARR-15  
L.F.RECEIVER.....R23/ARC-5  
VHF.....AN/ARC-1  
ADF.....AN/ARN-7  
LORAN.....AN/APN-4  
MARKER BEACON.....AN/ARN-8  
RANGE RECEIVER....R23/ARC-5  
RADIO ALTIMETER....AN/APN-1  
IFF.....AN/APX-2  
RADAR.....AN/APS-33  
RCM REC. & ANALYZ...AN/APR-4  
RCM PAN. ADAPTER...AN/APA-38

**POWER PLANT**

NO. & MODEL....(2) R-3350-24W  
MFR.....W.A.C.  
SUPERCH.....1 Stage, 2 Speed  
PROP. GEAR RATIO.....0.4375  
PROP. MFR.....Ham. Std.  
PROP. DES. NO.....2F17K3-24S  
NO. BL./DIA.....3/15'-1"

**RATINGS**

	Ehp @	Rpm @	Alt.
T. O.	2,500	2,900	S. L.
MIL.	2,500	2,800	3,500'
	1,900	2,600	14,800'
NORM.	2,100	2,400	5,500'
	1,800	2,400	15,000'
COMB.	3,200	2,800	S. L.
	2,550	2,600	8,000'
SPEC. NO.	N-825 (SEE NOTES)		

**ORDNANCE****GUNS**

No.	Size	Location	Rds.
2	50 cal.	Deck, Aft	800
6	20 mm	Nose	1,350
2	20 mm	Tail	800

**BOMBS & ROCKETS**

Type	Size	Location	No.
D.B.	325#	Fuselage	12
Bomb	1000#	Fuselage	8
Bomb	2000#	Fuselage	4
Mines	1000#	Fuselage	8
Mines	2000#	Fuselage	2
Torp.	MK.13-3	Fuselage	2
A.R.	11.75"	Fuselage	2
HVAR	5"	Wing	16
Bombing Gear.....	AN/APA-5A		

**FIRE CONTROL**

1-Sight, Ill. MK. 8-8 (Pilot)  
2-Sights, MK. 18 (Turrets)  
MAX. BOMB CAPACITY....8,000 #



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) PATROL 8,000 # Mine	(4) PATROL 2 Mk. 34 Mines	(5) PATROL
TAKE-OFF WEIGHT	lbs.	62,000	57,332	62,000
Fuel (Fixed/Drop)	lbs.	13,716/-	14,100/-	14,100/5,478
Bombs	lbs.	8,000	2,286	
Wing/Power Loading (A) lbs/sq.ft; lbs/bhp.		62.0/17.2	57.3/15.8	62.0/17.2
Stall Speed--Power off	kn.	90.1	86.0	90.1
Stall Speed--Power off - No Fuel	kn.	78.0	73.4	72.6
Stall Speed--Power on	kn.	71.7	68.6	71.7
Maximum Speed/Alt (B)	kn/ft.	246/17,200	252/17,200	246/17,200
Take-off Distance, deck -- calm	ft.	1,900	1,630	1,900
Take-off Distance, deck	kn.	ft.		
Take-off Distance, Airport	ft.	2,790	2,510	2,790
Rate of climb -- sea level (B)	ft/min.	940	1,130	940
Service Ceiling (B)	ft.	22,400	24,000	22,400
Time-to-climb 10,000 ft. (B)	min.	13.0	10.6	13.0
Time-to-climb 20,000 ft. (B)	min.	37.2	27.7	37.2
Combat Range/V av 1,500	ft. n.mi/kn.	2,010/156	2,265/150	3,050/154
Combat Radius/V av 1,500	ft. n.mi/kn.	805/156	905/150	1,220/154
Endurance/V av 1,500	ft. hr/kn.		16.5/133	
LOADING CONDITION		(2) COMBAT	(3) COMBAT	(6) COMBAT
GROSS WEIGHT	lbs.	48,514	48,514	54,169
Engine power		Combat	Normal	Combat
Fuel	lbs.	8,230	8,230	11,747
Bombs/Tanks				
Max. speed at sea level	kn.	264	231	263
Max. speed/Alt	kn/ft.	277/8,000	262/17,200	275/8,000
Combat speed/Alt	kn/ft.	265/1,500	235/1,500	264/1,500
Rate of climb SL	ft/min.	2,350	1,520	2,030
Ceiling for 500 fpm R/C	ft.	25,000	22,600	21,300
Time-to-climb/Alt.	min/ft.			

## NOTES

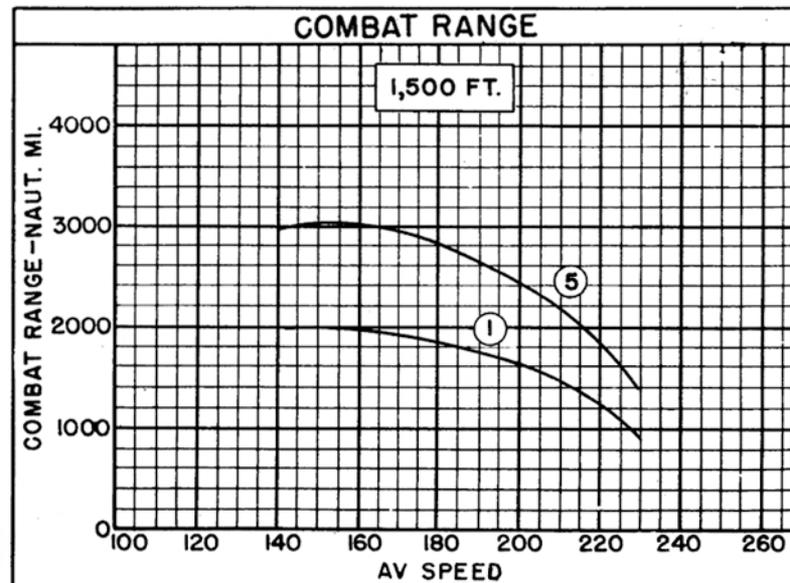
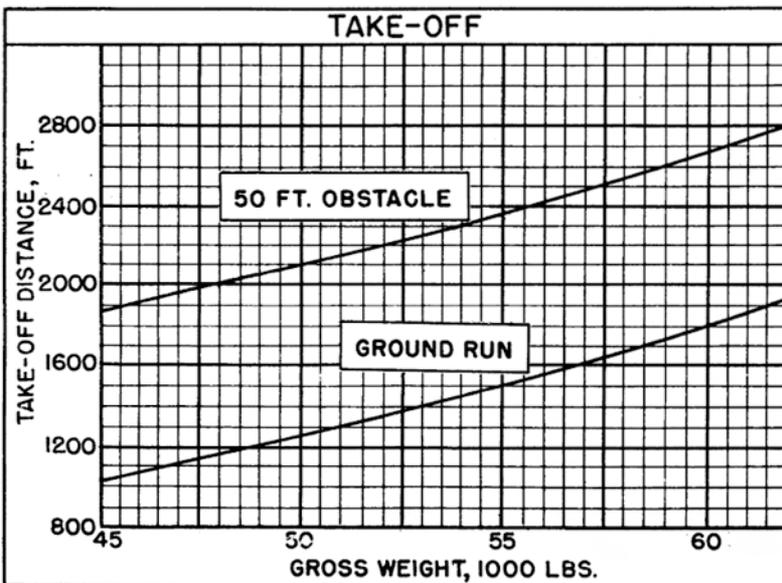
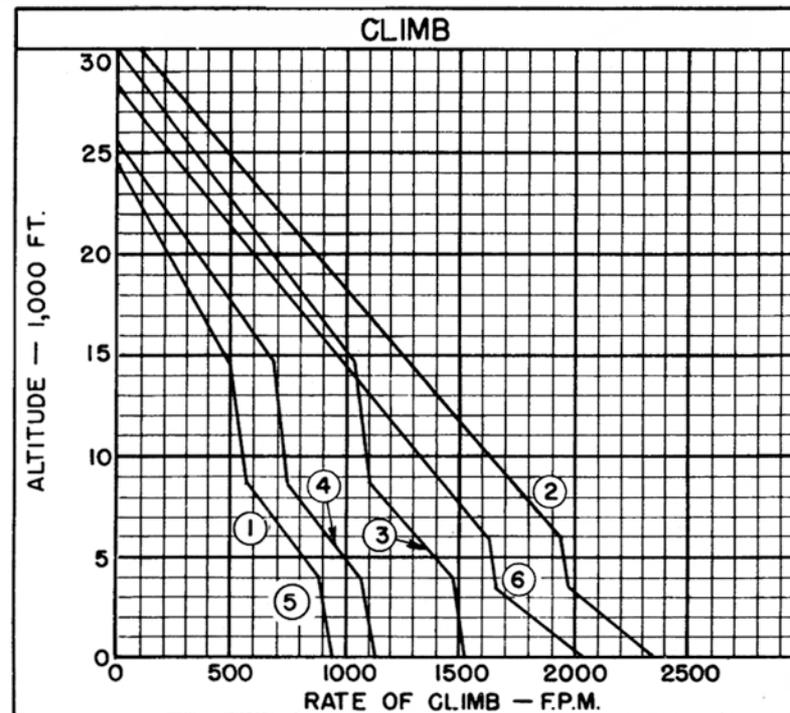
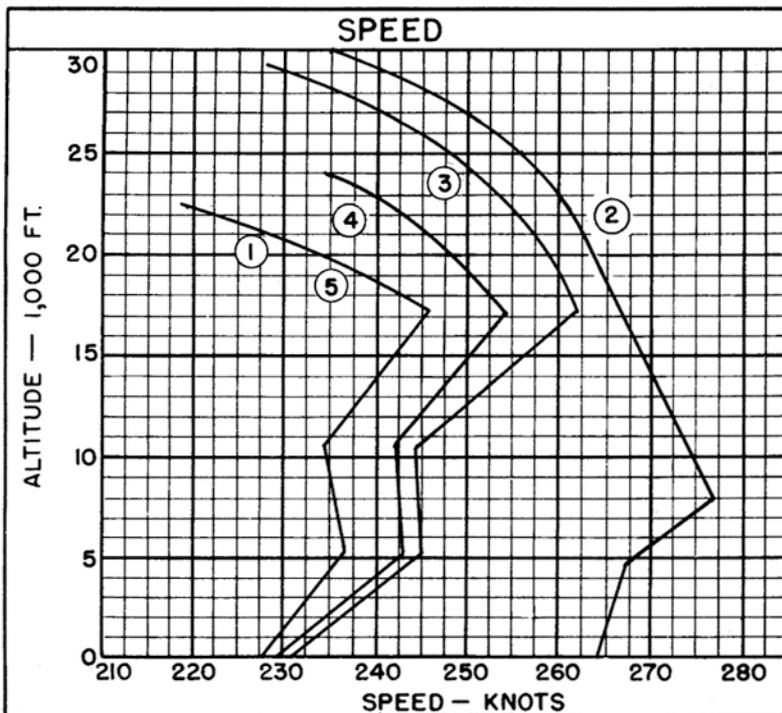
(A) BHP at Maximum Critical Altitude

(B) Normal BHP

Performance is based on flight test of P2V-2 airplane.

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Combat range and radius are based on flight test fuel consumption data increased 5%.  
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The same flight plan is followed in the determination of endurance as in that of combat range, except that the average speed used for maximum endurance is the minimum recommended speed.



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics, NAVAER 1335E (REV. 1-49)

## NOTES

GENERAL ASW PATROL PROBLEM NO. ASW-1

COMBAT RADIUS = 40% of combat range at 1,500 ft. altitude.

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 All Conditions: Sixteen Mk-9 rocket launchers installed; removal of launchers increases range by 40 nautical miles. Rockets not aboard.

Condition (4): Addition of sixteen 5" HVAR and removal of the mines (in order not to exceed the maximum allowable take-off gross weight) reduces range by 160 nautical miles.

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 Combat range for ferry loading (60,500 lbs. take-off gross weight, 20,100 lbs. of fuel, no ammunition) 3,210 nautical miles at 1,500 ft. altitude.

-----  
 All radii are reduced approximately 5 nautical miles for each minute of combat power operation at 1,500 ft. altitude.

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 The following engine ratings from flight test were used in preparation of performance data:

	Bhp	@	Rpm	@	Alt.
T. O.	2,500		2,800		S. L.
NORMAL	2,100		2,400		3,800'
	1,800		2,400		14,800'