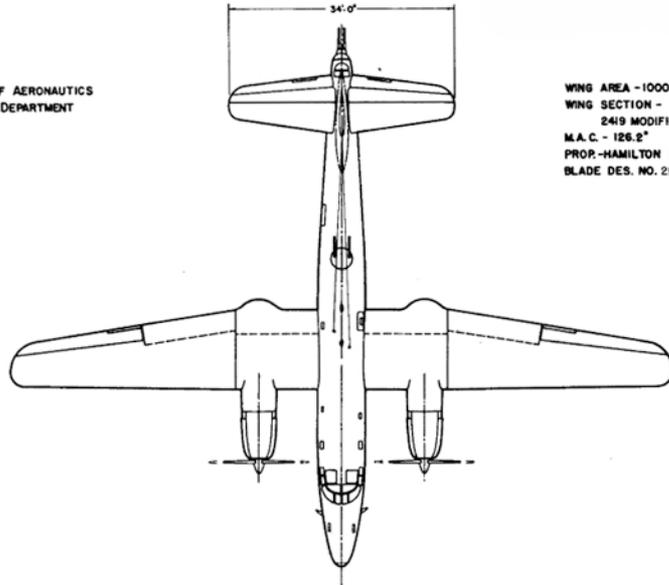


STANDARD AIRCRAFT CHARACTERISTICS

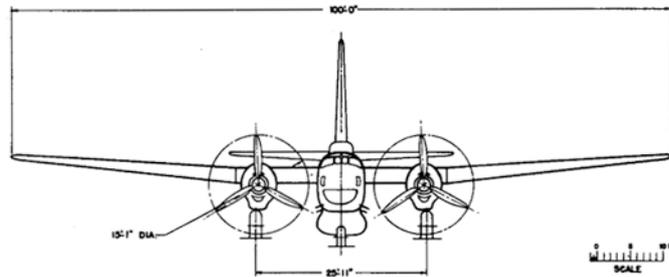
P2V-3W "NEPTUNE"

LOCKHEED

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

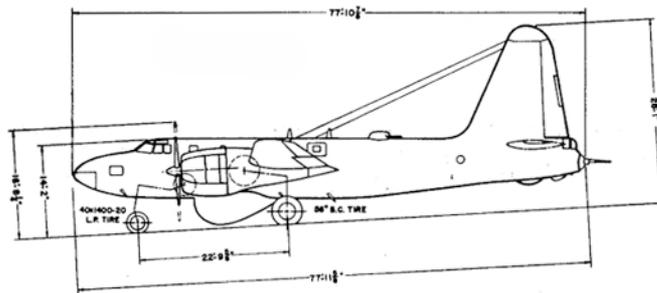


WING AREA - 1000 SQ. FT.
WING SECTION -
2419 MODIFIED B 4410.5
M.A.C. - 126.2"
PROP. - HAMILTON STD.
BLADE DES. NO. 2F17K3-245



15" DIA.

0 5 10 FT.
SCALE



18'-10"
14'-11"

22'-0"

40" HOO-20
L.R. TIRE

34" H.C. TIRE

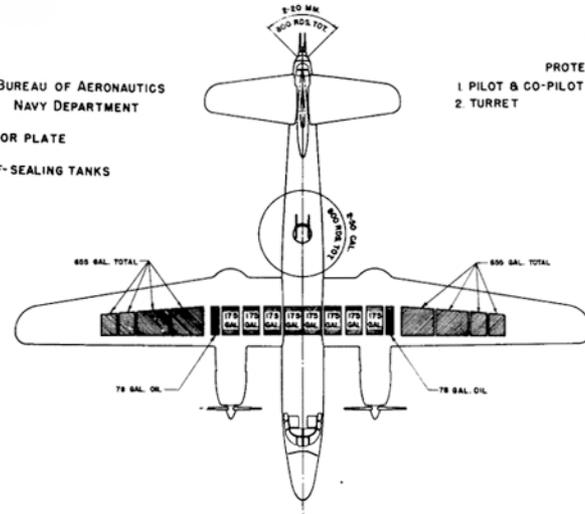
77'-10"

77'-11"

DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

- ARMOR PLATE
- SELF-SEALING TANKS



650 GAL. TOTAL

170 GAL.

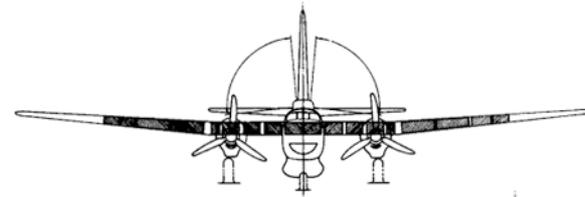
650 GAL. TOTAL

78 GAL. OIL

78 GAL. OIL

2-20 MM
360 DEG. ROT.

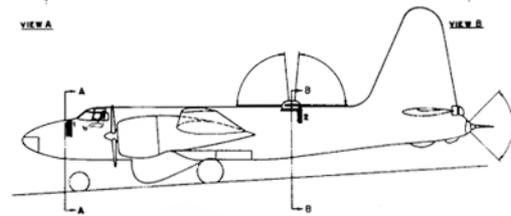
PROTECTION
1 PILOT & CO-PILOT F.W.D. 200 LBS.
2 TURRET 150 LBS.



VIEW A



VIEW B



0 5 10 FT.
SCALE

ARMAMENT & TANKS

MISSION AND DESCRIPTION

The P2V-3W is a day and night reconnaissance patrol airplane. It is intended to work as a team with the P2V-2 or P2V-3, with the P2V-3W acting as a search airplane, and its companions acting as the striking arm of the ASW team. All offensive armament has been deleted, the bomb bay is sealed, and the space used for electronic equipment installations accessible to the crew in flight.

The first flight was in August 1949; the first delivery date, January 1950.

It has a crew of nine, Fowler type wing flaps, aileron droop, "varicam" stabilizer, and thermal anti-icing of wing and tail surfaces.

Structure and construction are conventional, and similar to previous P2V-3 aircraft.

DIMENSIONS

WING AREA.....1,000 sq. ft.
SPAN.....100' - 0"
LENGTH.....77' - 11"
HEIGHT.....28' - 1"
TREAD.....25' - 11"
M.A.C.....10' - 6"
PROP. CLEAR.....1' - 7"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	37,500.....	
BASIC.....	39,600.....	
DESIGN.....	54,000.....	2.55
COMBAT.....	52,796.....	2.55
MAX.T.O.....	62,000.....	2.24
MAX.LAND.....	54,000.....	

All weights are calculated.

FUEL AND OIL

Gals.	No. Tanks	Location
1,310	2	Wing, S.S.
1,400	2	Wing, S.S.

FUEL GRADE.....115/145
FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....156
GRADE.....1120
SPEC.....AN-O-8

ORDNANCE**GUNS**

No.	Size	Location	Rds.
2	.50 cal.	Deck	800
2	20 mm	Tail	800

FIRE CONTROL

2 - Mk. 18 Mod. 6 Sights in
Turrets

POWER PLANT

NO. & MODEL....(2) R-3350-26W
MFR.....WAC
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

	Bhp @	Rpm @	Alt.
T. O.	2700	2900	S. L.
COMBAT	3150	2900	S. L.
MIL.	2700	2900	3700'
	2100	2600	14500'
NORMAL	2300	2600	6200'
	1900	2600	17000'
SPEC. NO. N-836-B			
(SEE NOTES)			

ELECTRONICS

VHF RADIO.....AN/ARC-1A
VHF TRANSCEIVER.....AN/ARC-2
VHF RELAY.....AN/ARC-28
RANGE RECEIVER.....AN/ARC-5
LF RECEIVER.....R-23A/ARC-5
TRANSMITTER.....AN/ART-13
HF RECEIVER.....AN/ARR-15A
VHF HOMING.....AN/ARA-8
HOMING.....AN/ARR-2A
BEACON RECEIVER.....AN/ARN-8
RADIO COMPASS.....AN/ARN-7
RADIO ALTIMETER.....AN/APN-1
LORAN.....AN/APN-4
SEARCH RADAR...AN/APS-20,-20A
RADAR RELAY TRAN...AN/ART-26
IFF.....AN/APX-1AM,-13A
PANORAMIC ADAPT.AN/APA-10,-38
PULSE ANALYZER.....AN/APA-64A
RCM.....AN/APR-4
RADAR SEARCH REC.....AN/APR-9
RCM & PAN. ADAPT...AN/ARR-5,-7
SEE NOTES



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) PATROL		
TAKE-OFF WEIGHT	lbs.	59,300		
Fuel	lbs.	16,260		
Bombs	lbs.	---		
Wing/Power Loading (A)	lbs/sq.ft;lbs/bhp.	59.3/15.6		
Stall Speed--Power off	kn.	88.1		
Stall Speed--Power off - No Fuel	kn.	73.4		
Stall Speed--Power on	kn.	70.0		
Maximum Speed/Alt (B)	kn/ft.	254/19,000		
Take-off Distance, deck -- calm	ft.	1,700		
Take-off Distance, deck	kn.	ft.		
Take-off Distance, Airport	ft.	2,540		
Rate of climb -- sea level (B)	ft/min.	1,295		
Service Ceiling	(B) ft.	25,000		
Time-to-climb 10,000 ft.	(B) min.	8.6		
Time-to-climb 20,000 ft.	(B) min.	22.6		
Combat Range/V av	ft. n.mi/kn.	2,490/141		
Combat Radius/V av	ft. n.mi/kn.	995/141		
Endurance/V av	hrs/kn.	18.6/135		
LOADING CONDITION		(2) COMBAT	(3) COMBAT	(4) COMBAT
GROSS WEIGHT	lbs.	52,796	52,796	52,796
Engine power		Combat	Military	Normal
Fuel	lbs.	9,756	9,756	9,756
Bombs/Tanks		---	---	---
Max. speed at sea level	kn.	256	246	235
Max. speed/Alt	kn/ft.	263/16,500	263/16,500	261/19,000
Combat speed/Alt	kn/ft.	261/1,500	249/1,500	238/1,500
Rate of climb SL	ft/min.	2,140	1,880	1,575
Ceiling for 500 fpm R/C	ft.	22,400	22,400	22,400
Time-to-climb/Alt.	min/ft.			

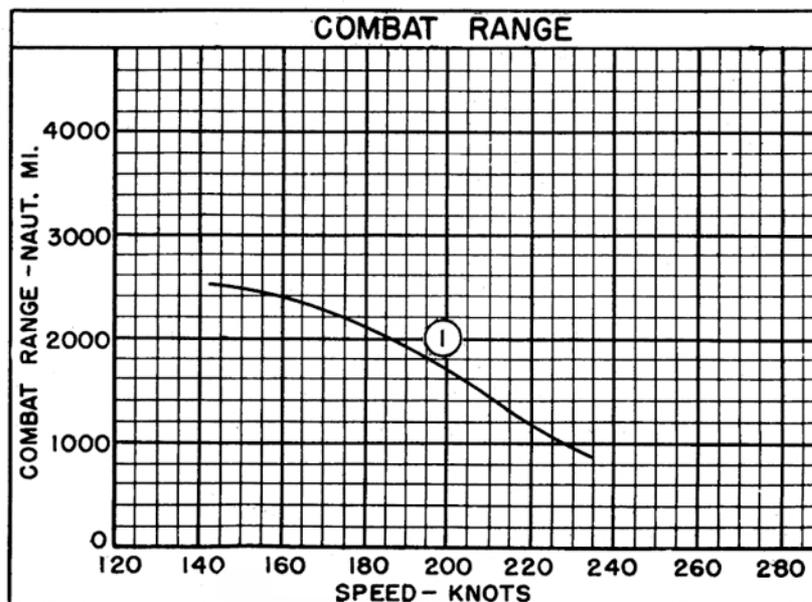
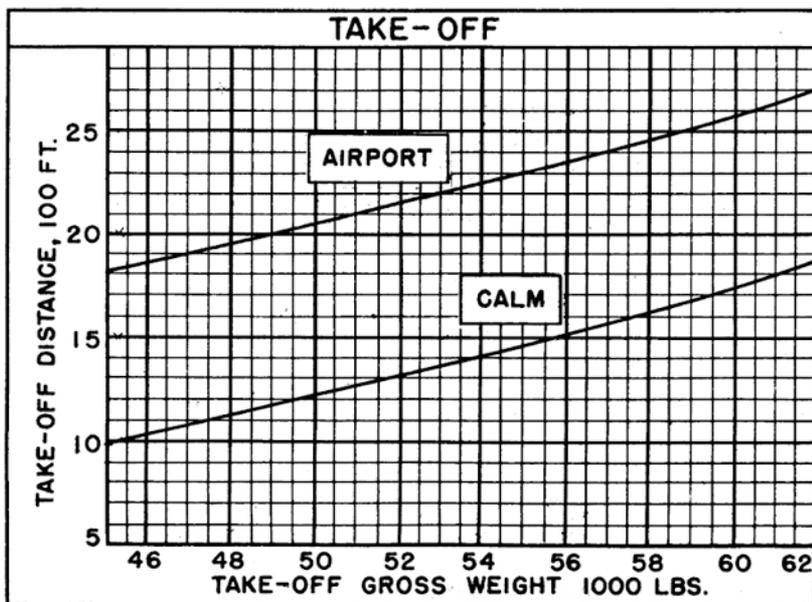
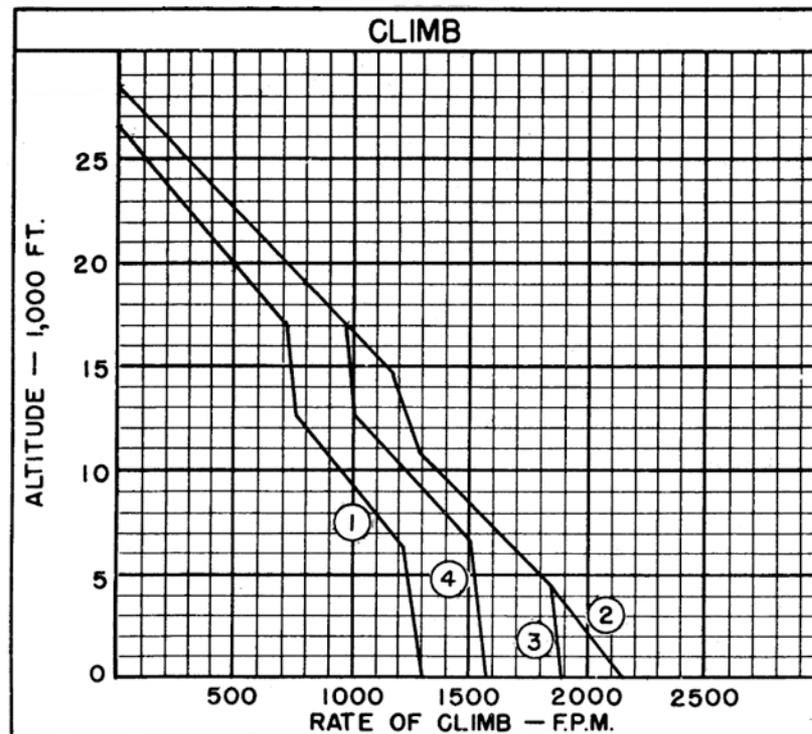
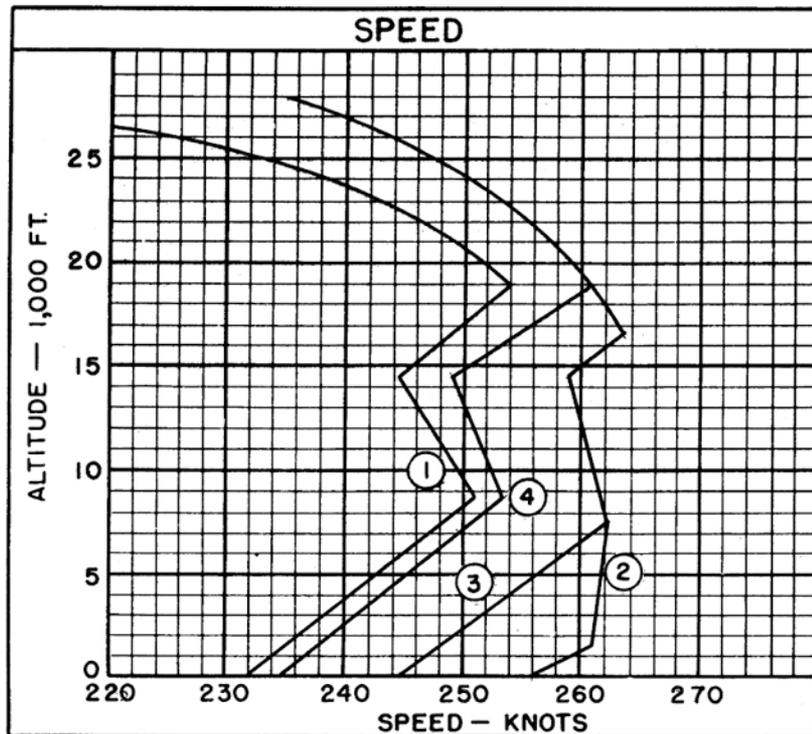
NOTES

- (A) BHP at Maximum Critical Altitude
 (B) Normal BHP

Performance is based on flight test of P2V-3 airplane.

 Combat range and radius are based on P2V-3 flight test fuel consumption data increased 5%.

Combat radius is 40% of combat range (ASW-1 Problem).



○ LOADING CONDITION COLUMN NUMBER

NOTES

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.

Single engine rate-of-climb at sea level, on military power, as follows:

Gross Weight, Lbs.	Rate-of-Climb, Ft./Min.
40,000	960
50,000	570
60,000	285

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

The following engine ratings from flight test of P2V-3 airplane were used in preparation of performance data:

	Bhp	@	Rpm	@	Alt.		Bhp	@	Rpm	@	Alt.
T. O.	2,610		2,800		S. L.	NORMAL	2,300		2,600		6,200'
MILITARY	2,610		2,800		4,400'		1,900		2,600		17,000'
	2,100		2,600		14,500'						

The following Electronics equipment will be service installed:

GROUND POSITION INDICATORS.....AN/APA-57
and AN-APA-81
RCM DF.....AN/APA-69
IFF.....AN/APX-6
RADAR RELAY RECEIVER.....AN/ARR-27

Combat power is restricted to 3,090 Bhp at 2,800 Rpm at Sea Level.
