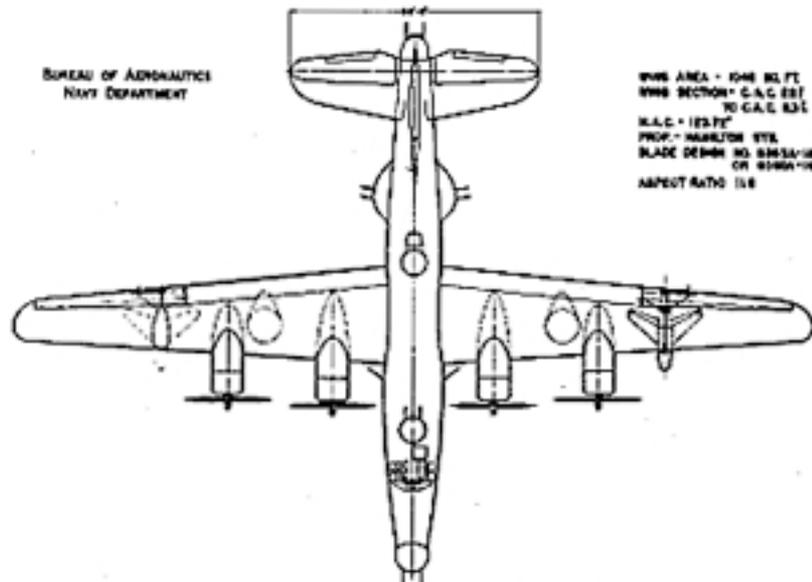
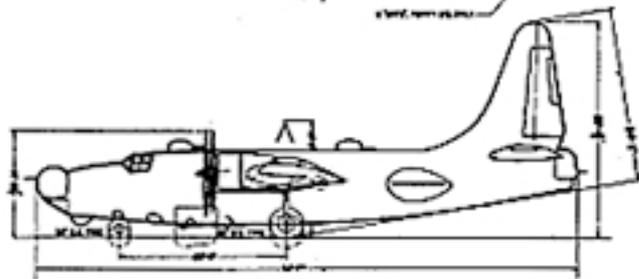
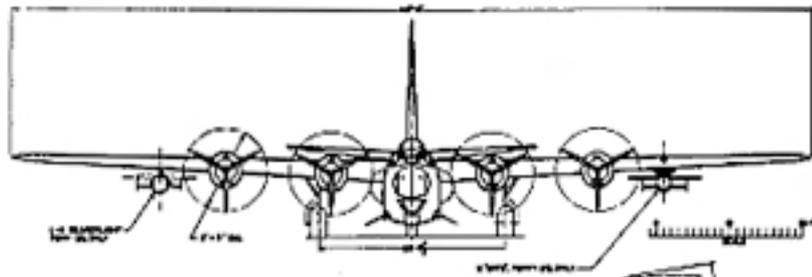


STANDARD AIRCRAFT CHARACTERISTICS
PB4Y-2B "PRIVATEER"

BUREAU OF AERONAUTICS
NAVY DEPARTMENT



WING AREA - 1046 SQ. FT.
WING SECTION - C.A.C. 831
TO C.A.C. 831
W.L.C. - 123.75'
PROP. - HAMILTON 878
BLADE DESIGN NO. 8283A-12
OR 8283A-14
ASPECT RATIO 11.8



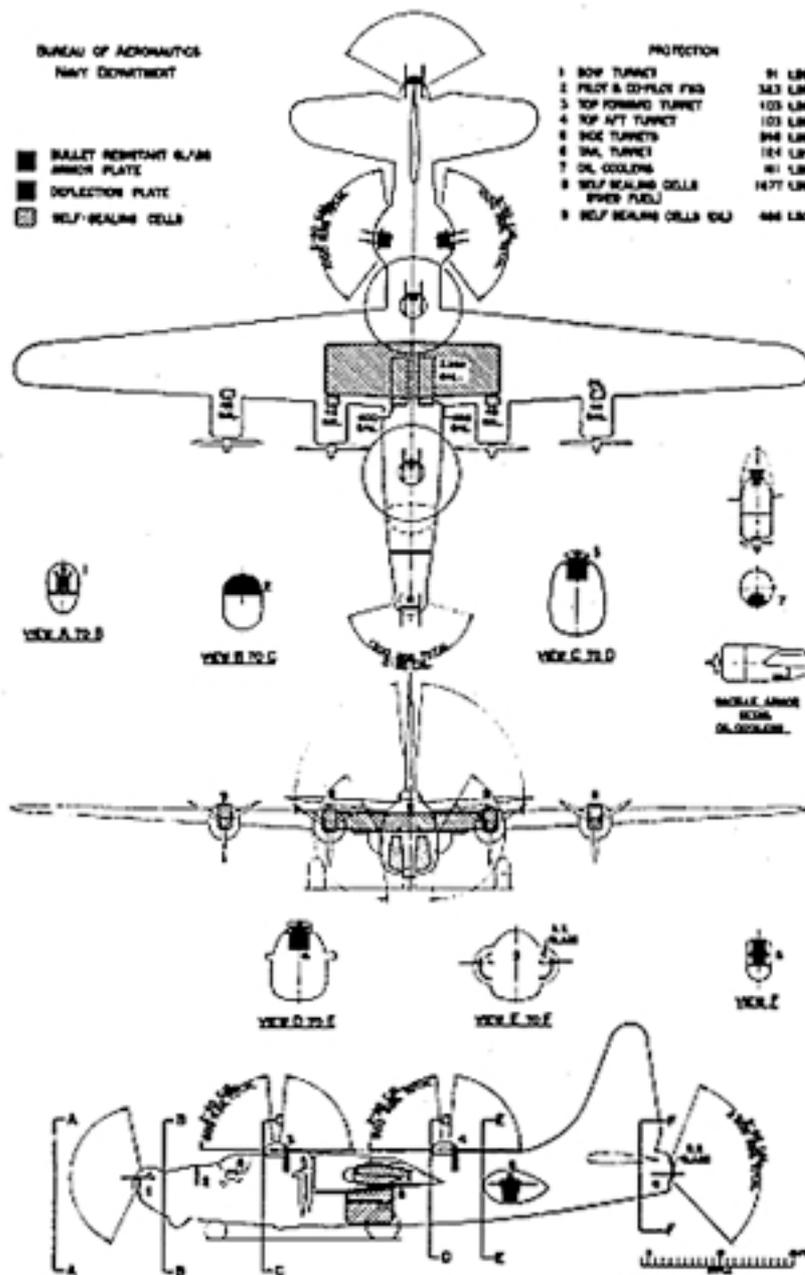
DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

- BALLIST RESISTANT 5/16" AMMUNITION PLATE
- DEFLECTION PLATE
- SELF-SEALING CELLS

PROTECTION

- | | | |
|---|---------------------------|-----------|
| 1 | BOV TURRET | 91 LBS. |
| 2 | PILOT & COPILOT FWD | 343 LBS. |
| 3 | TOP FORWARD TURRET | 103 LBS. |
| 4 | TOP AFT TURRET | 103 LBS. |
| 5 | BOE TURRETS | 846 LBS. |
| 6 | DR. TURRET | 124 LBS. |
| 7 | DR. COOLERS | 461 LBS. |
| 8 | SELF SEALING CELLS (FUEL) | 1477 LBS. |
| 9 | SELF SEALING CELLS (OIL) | 466 LBS. |



MISSION AND DESCRIPTION

The PB4Y-2B is a version of the PB4Y-2 airplane, as modified to act as parent aircraft to the guided missiles known as "Bats". It is a long range medium altitude patrol airplane. It features the Davis wing and tricycle landing gear. It carries a crew of eleven men.

Structure is conventional, using a two-spar wing carrying a hydraulically actuated Fowler flap, and containing means for thermal de-icing.

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	37844.....	
BASIC.....	40170.....	
DESIGN.....	56000.....	2.6
COMBAT.....	55480.....	2.6
MAX.T.O.....	64000.....	2.2
MAX.LAND....	56000.....	

All weights are actual.

POWER PLANT

NO. & MODEL.....(4) R-1830-94
 MFR.....Pratt & Whitney
 SUPERCH.....1 Stage, 2 Speed
 PROP. GEAR RATIO.....0.562
 PROP. MFR.....Ham. Std.
 PROP. DES. NO.....6353A-18
 NO. BL/DIA.....3/11'-7"

RATINGS

	Bhp	RPM	Alt.
T.O.	1350	2800	S.L.
MIL.	1350	2800	3900
	1100	2800	13500
NORM.	1100	2600	8200
	1000	2600	14500

SEE NOTE
 SPEC. NO. N-5136

FUEL AND OIL

Gal.	No. Tanks	Location
2364	1	Wing (Self Seal)
1600	4	Bomb bay
FUEL GRADE....100/130		
FUEL SPEC.....AN-F-48		

OIL

CAPACITY (gal.).....	180
SPEC.....	AN-O-8
GRADE.....	1100-1120

ORDNANCEGUNS

No.	Size	Location	Rds.
2	.50 cal.	Nose turret	1200
2	.50 cal.	Tail turret	2000
4	.50 cal.	Waist	2000
2	.50 cal.	Deck, Fwd.	800
2	.50 cal.	Deck, Aft.	800

SIGHTS

MK. 9	Nose, tail and waist
MK. 18	Deck turrets
MK. 23-7	Bomb sight

BOMBS

Type	Size	Location	No.
Bat	1600#	Wing	2
Bomb	2000#	Fus.	4
Bomb	1000#	Fus.	8
Bomb	500#	Fus.	12
Mines	2000#	Fus.	4
Mines	1000#	Fus.	8
Mines	700#	Fus.	4

MAX. BOMB LOAD....8,000 LBS.

DIMENSIONS

SPAN.....	110'-0"
LENGTH.....	74'-7"
HEIGHT.....	29'-2"
WING AREA.....	1048 sq. ft.
M.A.C.....	123.7"
TREAD.....	25'-8"

ELECTRONICS

COMMAND.....	AN/ARC-1
LIAISON.....	ATC/PAX
COMPASS.....	SCR-269
MARKER BEACON.....	AN/ARM-8
ALTIMETER.....	AN/APN-4
IFF.....	AN/APX-8
SEARCH RADAR.....	AN/APS-15B



PERFORMANCE SUMMARY					
LOADING CONDITION		(1) ATTACK 2 "BATS"	(3) FERRY		
TAKE-OFF WEIGHT	lbs	64,000	64,000		
Fuel	lbs	13,289	14,184/1,620		
Bombs	lbs	3,200			
	lbs				
Wing/Power Loading (A)	lbs/so.ft.lbs/ hp	61.0/16.0	61.0/16.0		
Stall Speed--Power off	kn	91.9	91.9		
Stall Speed--Power off - No Fuel	kn	81.8	79.8		
Stall Speed--Power on	kn	83.5	83.5		
Maximum Speed/Alt (B)	kn/ft	199/13,900	206/13,900		
Take-off Distance, deck -- calm	ft	1,945	1,896		
Take-off Distance, deck	kn. ft				
Take-off Distance, Airport	ft	3,230	3,180		
Rate of climb -- sea level (B)	ft/min	730	730		
Service Ceiling (B)	ft	18,300	18,300		
Time-to-climb 10,000 ft. (B)	min	16.3	16.3		
Time-to-climb	ft. (B) min				
Combat Range/V av 1,500 ft.	n.mi/kn	1,435/140	1,850/138		
Combat Radius/V av 1,500 ft.	n.mi/kn	574/140			
LOADING CONDITION		(2) COMBAT	(4) COMBAT		
GROSS WEIGHT	lbs	55,480	55,480		
Engine power		MILITARY	NORMAL		
Fuel	lbs	7,970	7,970		
Bombs/Tanks					
Max. speed at sea level	kn	207	193		
Max. speed ACA/ft.	kn	216/12,800	212/13,900		
Combat speed/Alt.	kn/ft	210/1,500	196/1,500		
Rate of climb SL	ft/min	1,180	882		
Ceiling for 500 fpm R/C	ft	13,600	13,400		
Time-to-climb/Alt.	min/ft				

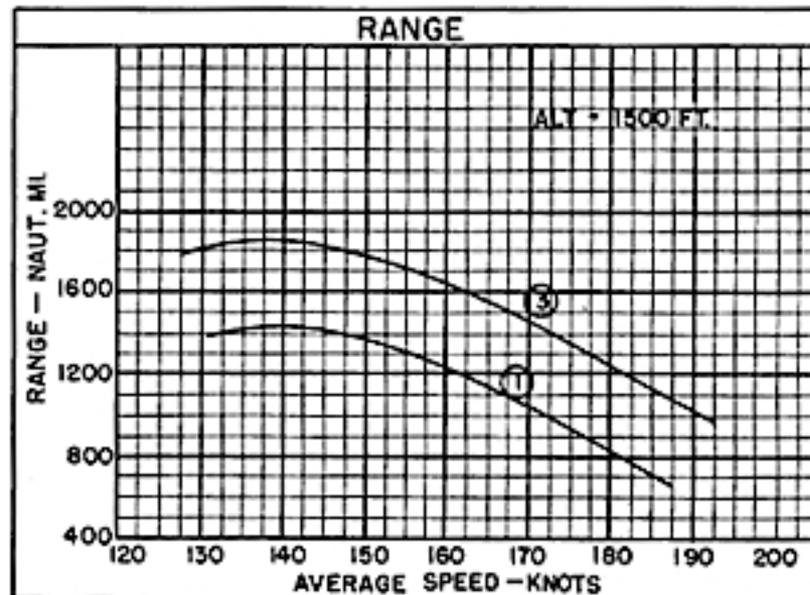
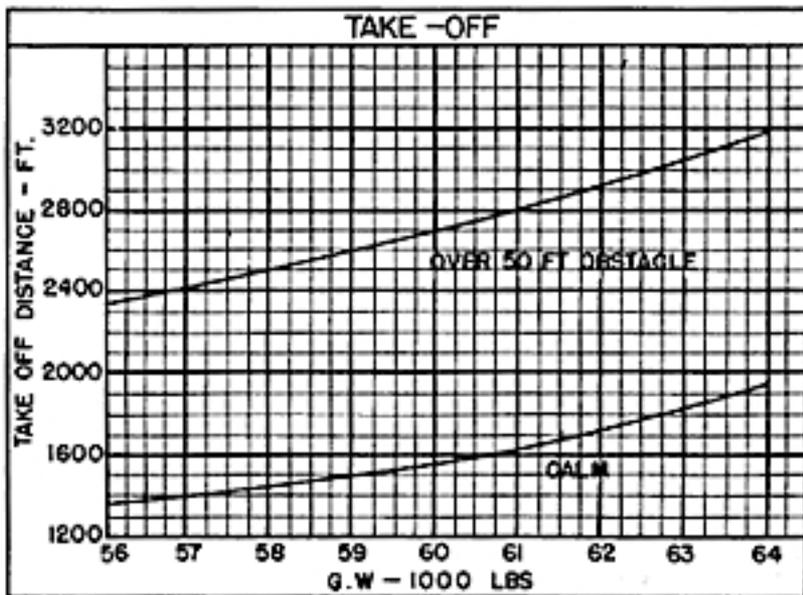
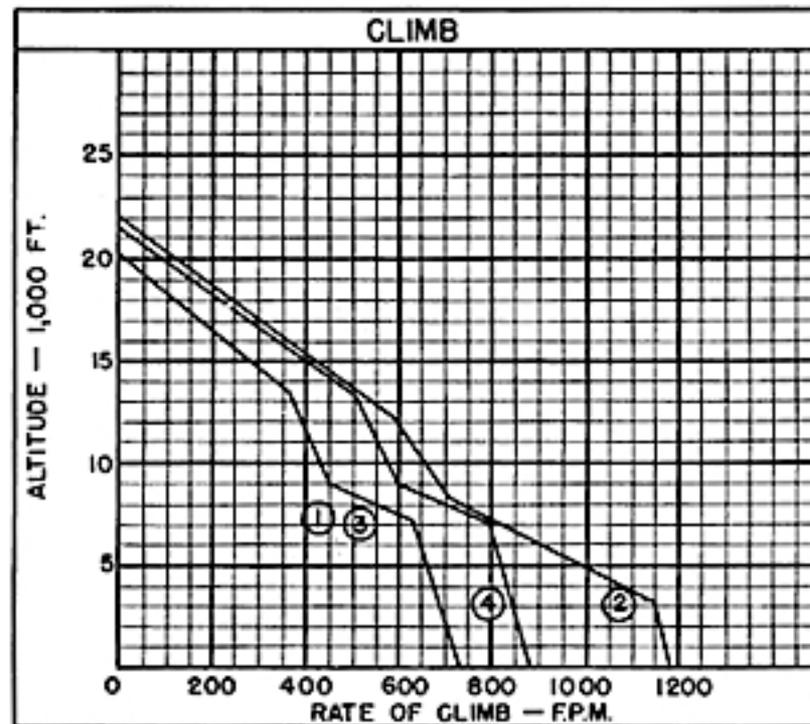
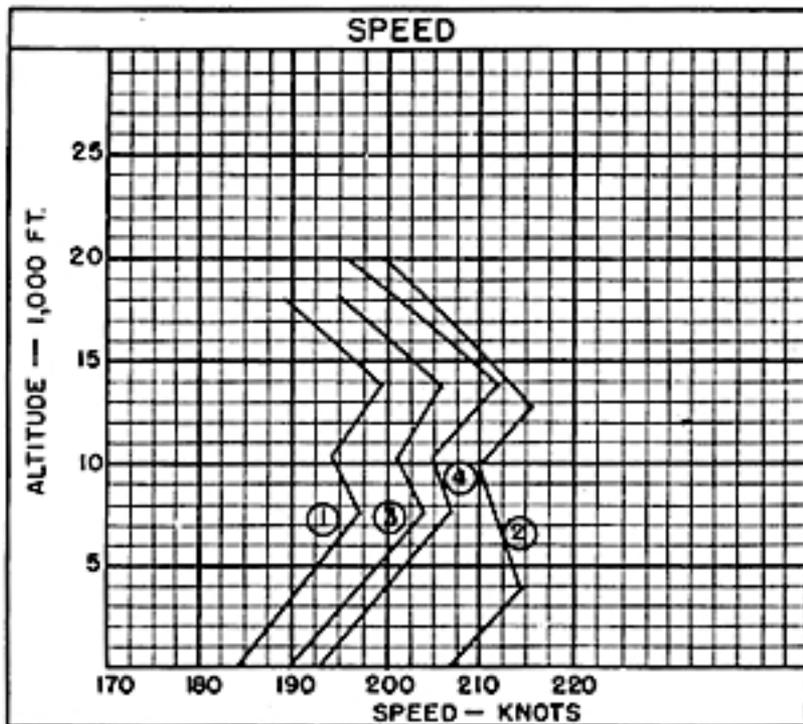
NOTES

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

Performance is based on flight test of PB4Y-2 airplane.

Range and radius are based on flight test fuel consumption data increased by 5%.

Combat radius is 40% of combat range.



○ LOADING CONDITION COLUMN NUMBER

NOTES

Combat radius is reduced 5 nautical miles for each minute of maximum rated power operation at 1500 ft.

Engine ratings from Flight Test:

	<u>Bhp</u>	<u>Rpm</u>	<u>Alt.</u>
T.O.	1350	2800	S.L.
Mil.	1350	2800	3200'
	1100	2800	12200'
Norm.	1100	2600	7200'
	1000	2600	13400'

Ferry condition includes racks for two "Bats".