

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		PATROL TWO BOMB BAY TANKS	PATROL TWO BOMB BAY TANKS	BOMBER 4 - 500# ONE B.B. TANK	BOMBER 8 - 1000#
GROSS WEIGHT	LBS.	64000	64000	64000	64000
EMPTY WEIGHT (ACTUAL)	LBS.	37405			
FUEL / OIL	GALS.	2969/165	2969/165	2725/151	1859/103
FIXED GUNS/AMMUNITION		None			
FLEXIBLE GUNS/AMMUNITION		12 - .50 Cal/5800 rds.			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	61.1	61.1	61.1	61.1
POWER LOADING ①	LBS./BHP.	14.6	16.0	16.0	16.0
V-MAX. SEA LEVEL	MPH.	238	221	221	221
V-MAX./CRITICAL ALT.	MPH./FT.	247/14000	242/15500	242/15500	242/15500
V-STALL GROSS WEIGHT ②	MPH.	96.2	96.2	96.2	96.2
V-STALL WITHOUT FUEL ②	MPH.	81.8	81.8	83.1	87.4
TIME-TO-CLIMB -10000FT-	MIN.	13.2	15.7	15.7	15.7
TIME-TO-CLIMB -20000FT-	MIN.				
SERVICE CEILING	FT.	19,500	19,100	19,100	19,100
TAKE-OFF DISTANCE -CALM-	FT.	1875	1875	1875	1875
TAKE-OFF DISTANCE -15 KN-	FT.	1285	1825	1825	1825
TAKE-OFF DISTANCE -25 KN-	FT.	947	947	947	947
TAKE-OFF DISTANCE -50 FT. OBST.	FT.	3190	3190	3190	3190
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	990	720	720	720
MAX. RANGE / V-AV. ③	ST. MI./MPH.		2900/158	2630/158	1705/162
RANGE / V-AV. -60%NSP-③-	ST. MI./MPH.				
SEARCH RADIUS / V-AV. -20%R-(P-1)	NMI./KN.		780/139	705/140	465/142
A.S.W. RADIUS / V-AV. -20%R-	NMI./KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.				
ENGINE / PROP GEAR RATIO		4 P&W R-1830-94 (16:9)			
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE-OFF	
	1350/2800/SL-3600	1100/2600/SL - 8200		1350/2800/S.L.	
	1100/2800/9650 - 13400	1000/2600/11100 - 14500			
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
FIXED AUX.	PROTECTED	184	2364	Fuselage Bomb Bays	
	UNPROTECTED			Bombs - 4-2000#, 8-1600#, 12-1000#, 12-500#,	
	TOTAL - FIXED INTERNAL	184	2364	40-100#	
	DROPPABLE			Mines - 4-2000#, 8-1000#	
	DROPPABLE Bomb Bay S.S. 4 @ 400		1600	Depth Bombs - 8-650#, 12-325#	
TOTAL	184	3964			
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS		Note: Offensive Armament carried equally divided in 4 bomb bays. Installation of one bomb bay tank reduces bomb capacity by $\frac{1}{4}$, two bomb bay tanks by $\frac{1}{2}$, etc.		
	① BHP AT MAX. CRIT. ALT.				
	② STALL-WITH POWER				
③ AT 1500' ALTITUDE					

SUPERSEDES 1 JULY 1944

DATE 1 MARCH 1946

PAGE 1

CONFIDENTIAL

MODEL-PB4Y-2

NAVAER-1519B (Rev. 9-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5			
LOADING CONDITION		FERRY THREE BOMB BAY TANKS			
GROSS WEIGHT	LBS.	64000			
EMPTY WEIGHT	ACTUAL LBS.	36360			
FUEL/OIL	GALS.	3514/184			
FIXED GUNS/AMMUNITION		None			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		NORMAL			
WING LOADING	LBS./SQ.FT.	61.1			
POWER LOADING ①	LBS./BHP	16.0			
V-MAX. SEA LEVEL	MPH.				
V-MAX./ CRITICAL ALT.	MPH./ FT.				
V-STALL. GROSS WEIGHT ②	MPH.				
V-STALL. WITHOUT FUEL ②	MPH.				
TIME-TO-CLIMB -10000FT.-	MIN.				
TIME-TO-CLIMB -20000FT.-	MIN.				
SERVICE CEILING	FT.				
TAKE-OFF DISTANCE -CALM--	FT.				
TAKE-OFF DISTANCE -15 KN.-	FT.				
TAKE-OFF DISTANCE -25KN.-	FT.				
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF DISTANCE	SECONDS				
RATE OF CLIMB -SL-	FT./ MIN.				
MAX. RANGE / V-AV. ③	ST. MI. / MPH.	3530/157			
RANGE / V-AV. -60%NSP-③-	ST. MI. / MPH.				
SEARCH RADIUS / V-AV. -20%R-	NMI. / KN.				
A S. W. RADIUS / V-AV. -20%R-	NMI. / KN.				
SCOUT RADIUS	NMI.				
COMBAT RADIUS	NMI.				

PERFORMANCE IS BASED ON - FLIGHT TEST PB4Y-2

RANGE & RADIUS ARE BASED ON FLIGHT TEST PB4Y-2

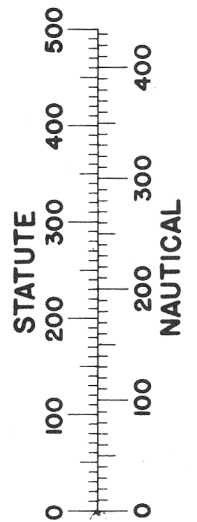
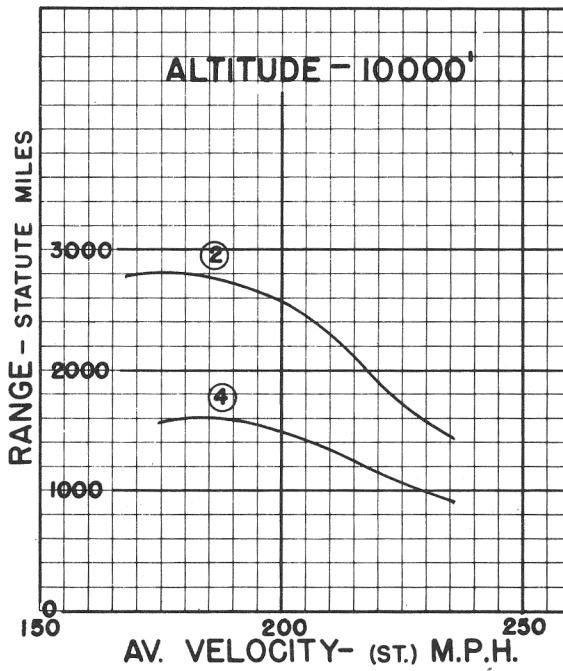
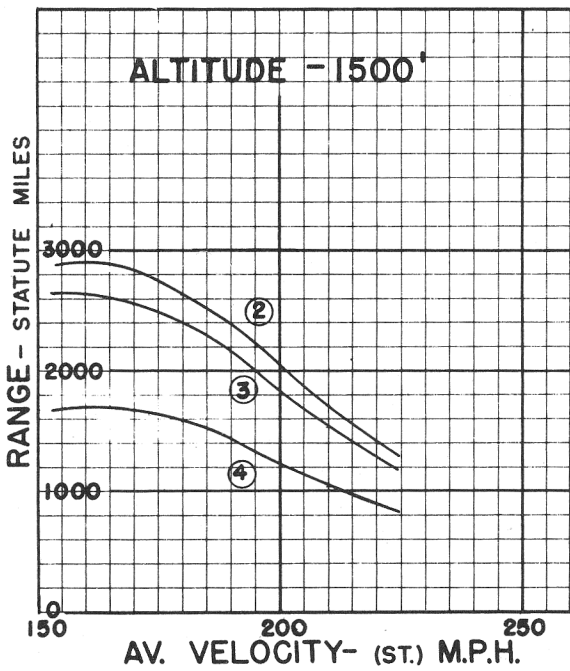
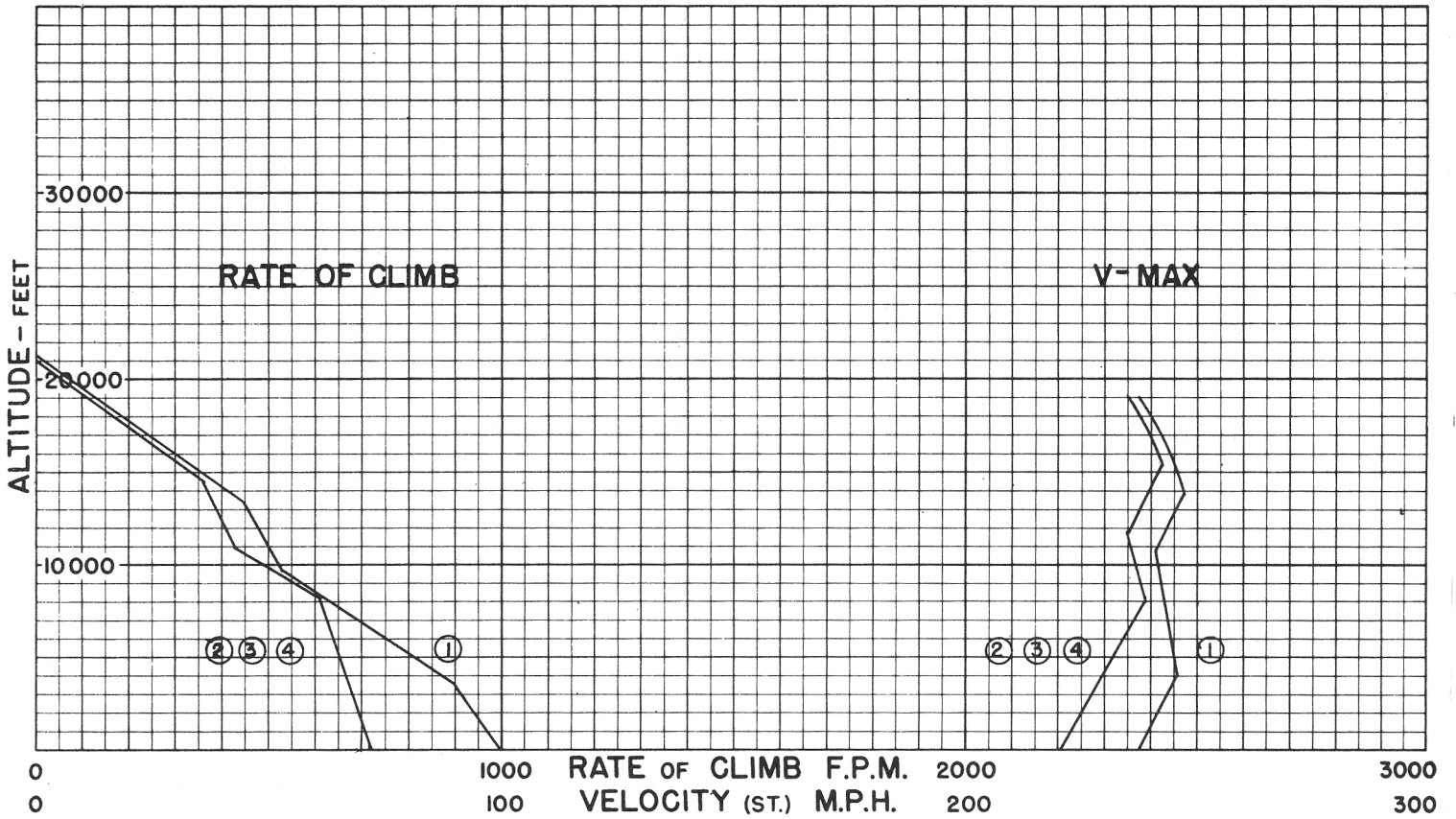
FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

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

Performance (except take-off) for all conditions except Ferry computed with AN/APS-15 radar nacelle extended. At 64000# gross weight, retracting radar nacelle has negligible effect on maximum range at 1500 ft. and Vmax at ACA.

RCM and Radar bombing equipment aboard in all conditions.



○ LOADING CONDITION COLUMN NUMBER

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ARMAMENT DATA:

Protection - Nose Turret	- 77 Lbs.
Tail Turret	- 20 Lbs.
Waist Turrets	- 208 Lbs.
Deck Turrets	- 203 Lbs.
Co-Pilot Fwd	- 323 Lbs.
Oil Coolers	- 181 Lbs.
Self Sealing Cells (Fuel)	- 1677 Lbs.
Self Sealing Cells (Oil)	- 495 Lbs.

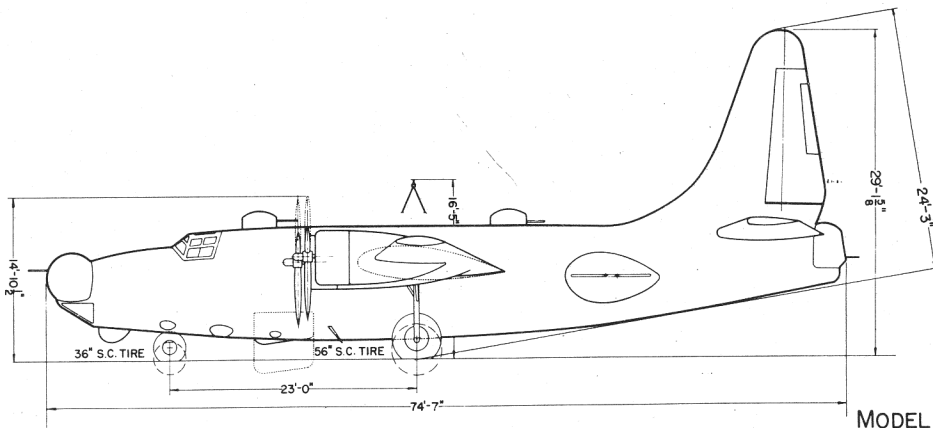
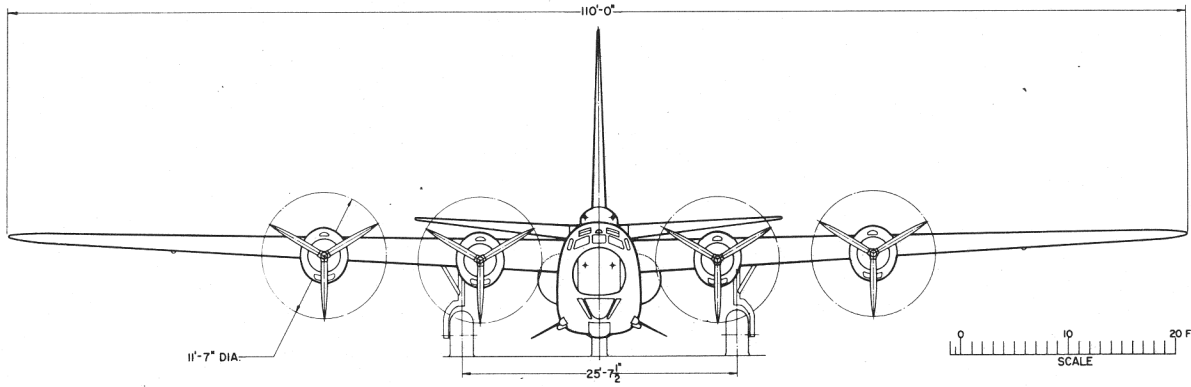
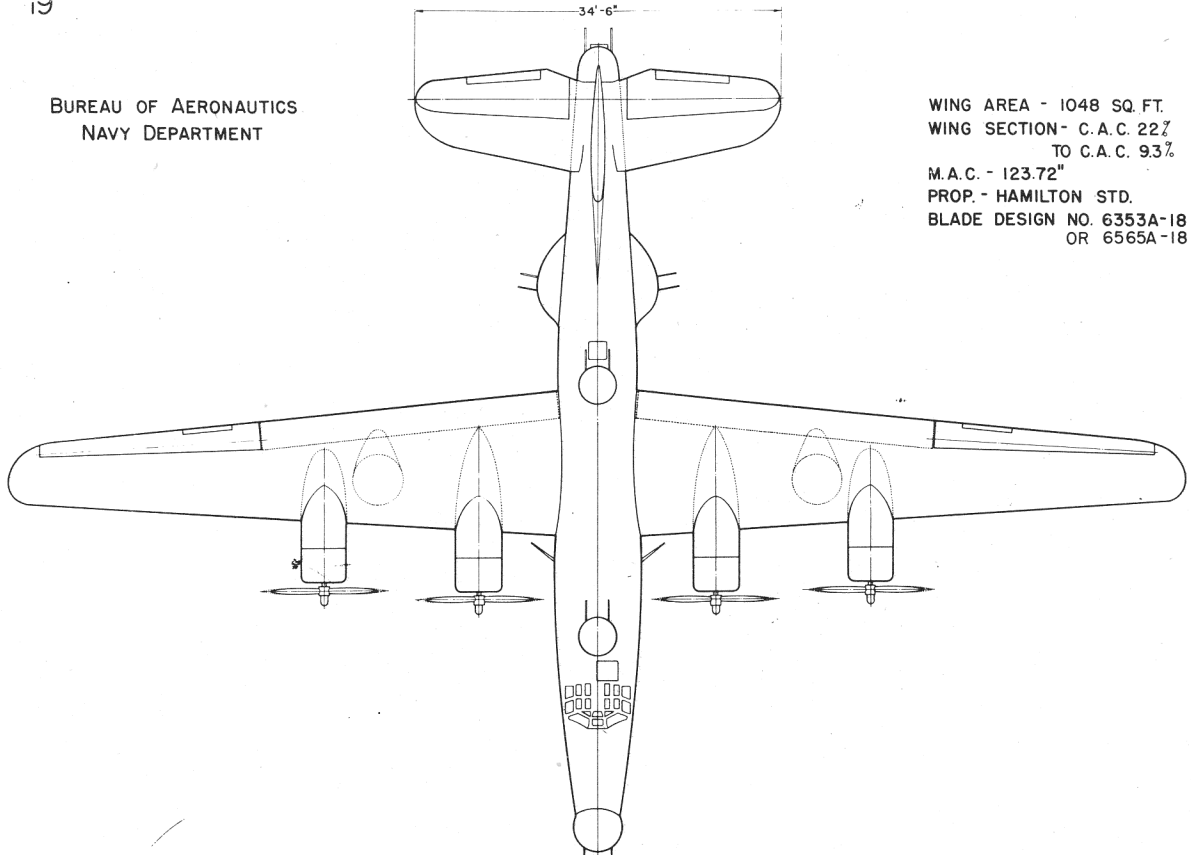
Nose Turret	2-50cal/1200rds.
Tail Turret	2-50cal/1000rds.
Deck Fwd. Turret	2-50cal/800rds.
Deck Aft Turret	2-50cal/800rds.
Waist Turrets	4-50cal/2000rds.

DESCRIPTIVE DATA:

Span	- 110'-0"
Height Level	- 29'-1.6"
Length Level	- 74'-7"
Wing Area	- 1048 Sq.Ft.
M.A.C.	- 123.7"
Airfoil Section	- C.A.C. 22%-9.3%
Propeller	- Hamilton Standard C.S./ 3-Blade
Blade Design No.	- 6353A-18 or 6565A-18
Propeller Diameter	- 11'-7"





BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 1048 SQ. FT.
WING SECTION - C. A. C. 22 $\frac{7}{8}$
TO C. A. C. 93%
M. A. C. - 123.72"
PROP. - HAMILTON STD.
BLADE DESIGN NO. 6353A-18
OR 6565A-18



MODEL PB4Y-2

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

-  BULLET RESISTANT GLASS
-  ARMOR PLATE
-  DEFLECTION PLATE
-  SELF-SEALING CELLS

PROTECTION

1 BOW TURRET	91 LBS.
2 PILOT & CO-PILOT FWD.	323 LBS.
3 TOP FORWARD TURRET	103 LBS.
4 TOP AFT TURRET	103 LBS.
5 SIDE TURRETS	246 LBS.
6 TAIL TURRET	124 LBS.
7 OIL COOLERS	181 LBS.
8 SELF SEALING CELLS (FIXED FUEL)	1677 LBS.
9 SELF SEALING CELLS (OIL)	495 LBS.

