

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	1	2	3	4
LOADING CONDITION	PATROL	BOMBER 8-1000#	BOMBER 8-1600#	A.S.PATROL 8-650#
GROSS WEIGHT LBS.	51330	58000	58000	56550
EMPTY WEIGHT - Actual - LBS.	33175			
FUEL/OIL GALS.	1950/108	1735/96	986/55	1950/108
FIXED GUNS / AMMUNITION	None			
FLEXIBLE GUNS / AMMUNITION	8-.50 cal/4840 rds			
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING LBS./SQ.FT.	36.5	41.3	41.3	40.3
POWER LOADING (1) LBS./BHP.	19.0	21.5	21.5	21.0
V-MAX. SEA LEVEL MPH.	196	193	193	194
V-MAX. AIRPLANE CRIT. ALT. MPH.	211/16100	205/16100	205/16100	206/16100
V-STALL. GROSS WEIGHT. (2) MPH.	75.4	80.2	80.2	79.2
V-STALL. WITHOUT FUEL (2) MPH.	66.3	72.6	76.0	70.6
TIME-TO-CLIMB -10000FT.- MIN.	22.2	39.6	39.6	34.3
TIME-TO-CLIMB +20000FT.- MIN.	-	-	-	-
SERVICE CEILING FT.	19800	16900	16900	17500
RATE OF CLIMB -SL- FT/MIN	620	430	430	470
TAKE-OFF DISTANCE -15 KN- FT.				
TAKE-OFF DISTANCE -25 KN- FT.				
TAKE-OFF TIME SECONDS.	32	56	56	48
MAX. RANGE / V-AV. (3) ST.MI./MPH.	2420/127	1855/136	1000/139	2180/134
BOMBING RADIUS / V-AV.-20% R- NMI./KN.		625/119	340/121	
BOMBING RADIUS / V-AV.-33% R- NMI./KN.		515/120	280/121	
PATROL RADIUS / V-AV.-20% R- NMI./KN.	545/112			490/117
PATROL RADIUS / V-AV.-33% R- NMI./KN.	450/113			400/118
SCOUT RADIUS NMI.				
COMBAT RADIUS NMI.				
ENGINE / PROP.GEAR RATIO	2 W.A.C. R-2600-22 (16:7)			
ENGINE RATING BHP/RPM/ALT.	NORMAL 1600/2400/SL-3500		MILITARY None	
	1350/2400/8300-16100			
	1900/2800/take-off			
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS.			
	(1) BHP AT MAX.CRIT.ALT. (2) STALL-WITHOUT POWER (3) AT 1500' ALTITUDE			

	TANKAGE IN GALLONS	OIL	FUEL	OFFENSIVE ARMAMENT
FIXED	PROTECTED		1950	WING BOMB-BAYS: (Internal)
	UNPROTECTED	150		Bombs : 8-1600#A.P., 8-1000#
	TOTAL-INCL.PROT.	150	1950	8-500#, or 12-100#
AUX.	INCREASE-REMOVED PROTECTION		FIXED	Depth Bombs : 8-650# or 8-325#
				Mines : 4-MK 13
	DROPPABLE - Unprot - 2 @ 397-			WING: (External)
	One in each bomb-bay *		794	Torpedoes : 2 MK 13-2
	PROTECTED+UNPROTECTED+DROPPABLE		2744	

REMARKS - * Bombs cannot be carried in bomb-bay with droppable tank installed in that bomb-bay.

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS-NAVY DEPT.

COLUMN NUMBER	5	6	7	8
LOADING CONDITION	A.S.PATROL 4-650# *	TORPEDO 2 MK 13-2	TORPEDO 2 MK 13-2 *	FERRY **
GROSS WEIGHT LBS.	56685	55720	58000	53310
EMPTY WEIGHT - Actual - LBS.		33175		32120
FUEL/OIL GAL.	2347/130	1950/108	2280/126	2744/150
FIXED GUNS/AMMUNITION		None		None
FLEXIBLE GUNS/AMMUNITION		8-.50 cal/4840 rds		None
ENGINE POWER USED FOR PERFORMANCE	NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING LBS/SQ.FT.	40.4	39.7	41.3	38.0
POWER LOADING ① LBS/BHP.	21.0	20.6	21.5	19.8
V-MAX. SEA LEVEL MPH.	194	189	187	195
V-MAX. AIRPLANE CRIT. ALT. MPH.	206/16100	201/16100	198/16100	209/16100
V-STALL. GROSS WEIGHT. ② MPH.	79.4	78.6	80.2	76.9
V-STALL. WITHOUT FUEL ② MPH.	68.7	69.9	70.2	64.0
TIME-TO-CLIMB -10000FT.- MIN.	34.3	32.8	42.3	25.6
TIME-TO-CLIMB -20000FT.- MIN.	-	-	-	-
SERVICE CEILING FT.	17500	17700	16600	19000
RATE OF CLIMB --SLT FT/MIN.	470	480	420	560
TAKE-OFF DISTANCE -15 KN- FT.				
TAKE-OFF DISTANCE -25 KN- FT.				
TAKE-OFF TIME SECONDS.	49	45	56	37
MAX. RANGE/V-AV. ③ ST.MI/MPH.	2665/133	2070/133	2340/135	3405/128
BOMBING RADIUS/V-AV.-20% R- NMI/KN.		700/116	790/118	
BOMBING RADIUS/V-AV.-33% R- NMI/KN.		575/117	645/119	
PATROL RADIUS/V-AV.-20% R- NMI/KN.	600/117			
PATROL RADIUS/V-AV.-33% R- NMI/KN.	490/117			
SCOUT. RADIUS NMI.				
COMBAT RADIUS NMI.				

PERFORMANCE IS BASED ON- PROTOTYPE FLIGHT TEST

RANGE & RADIUS ARE BASED ON ENGINE REQUIREMENT FUEL CONSUMPTION DATA INCREASED BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

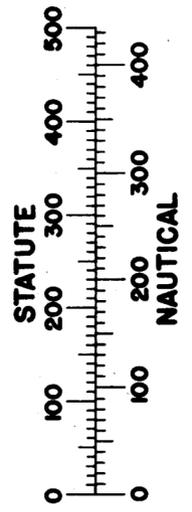
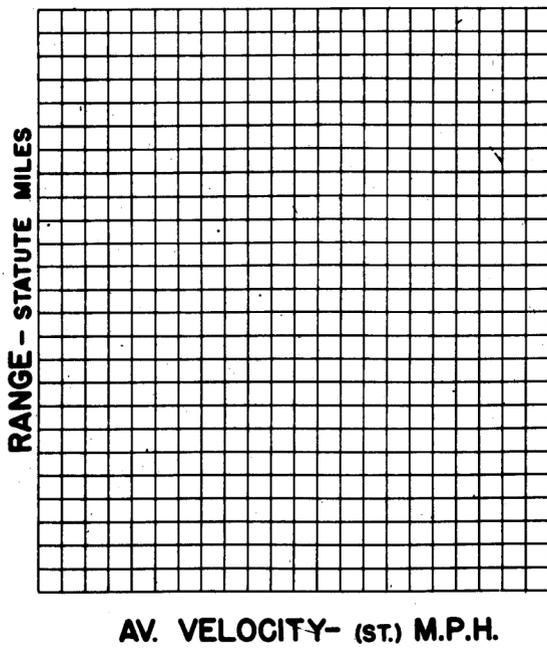
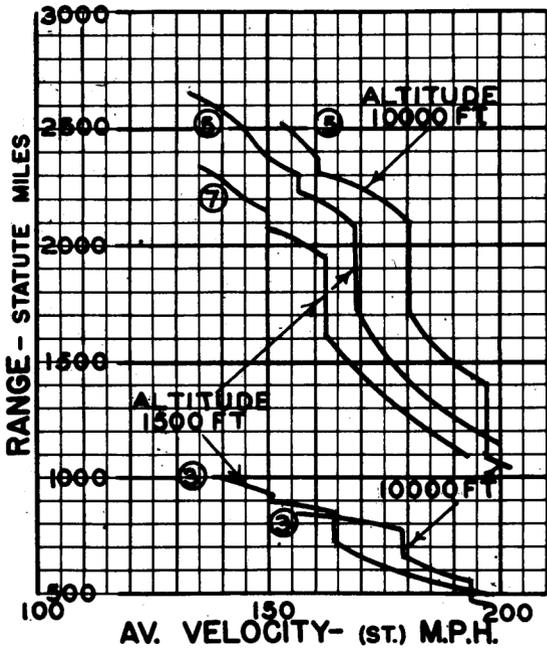
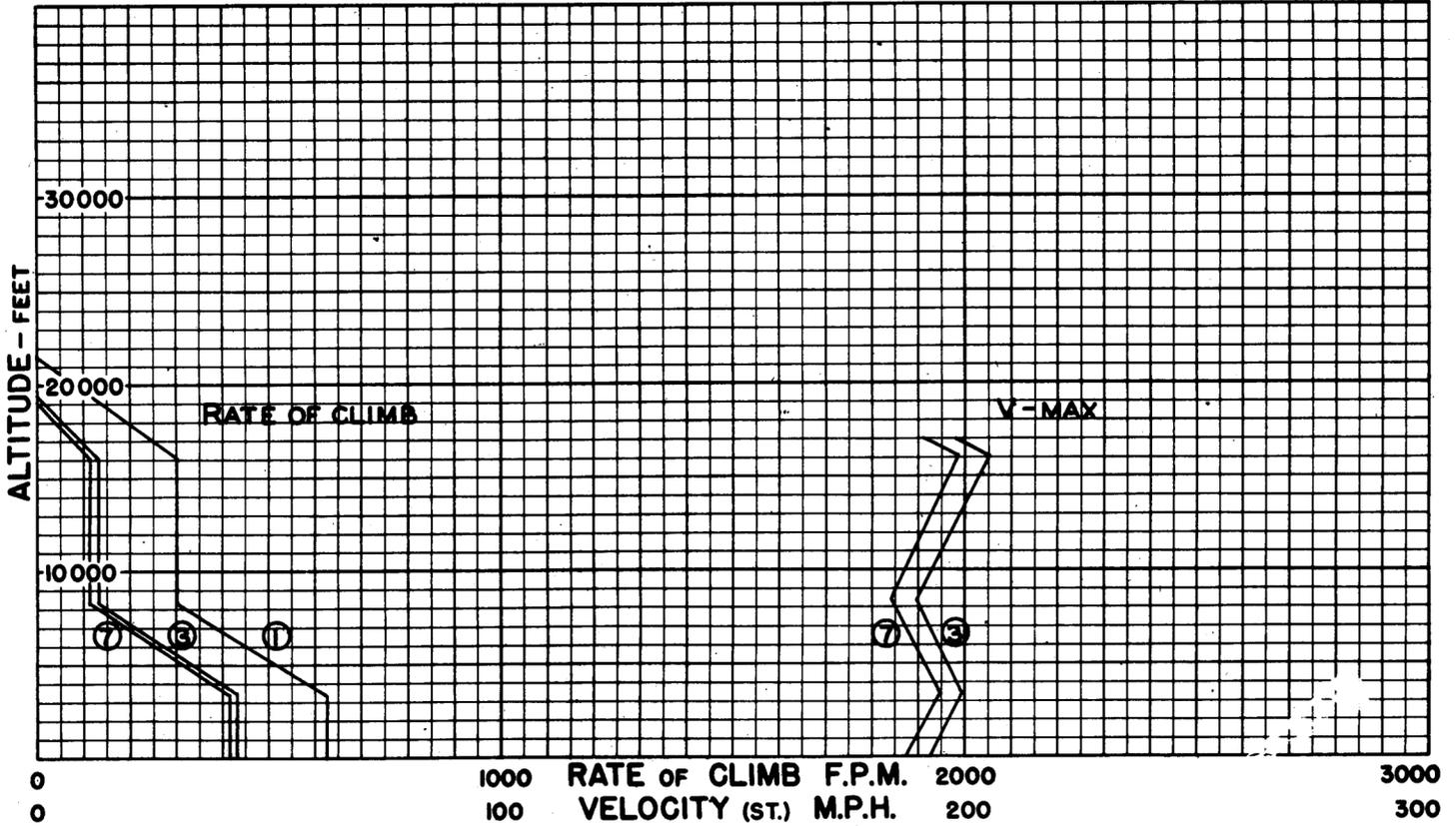
Practical Patrol Radius (Patrol and A.S. Loadings) is 1/3 of range at V for max. range at 1500' with fuel taken out for reserve.

Practical Patrol Bombing Radius (Bomber and Torpedo Loadings) is 1/2 of range at V for max. range with fuel taken out for reserve.

Reserve considered 20% for good flight conditions and 33% for adverse flight conditions.

* With one 397 gal. droppable bomb-bay tank.

**With two 397 gal. droppable bomb-bay tanks.

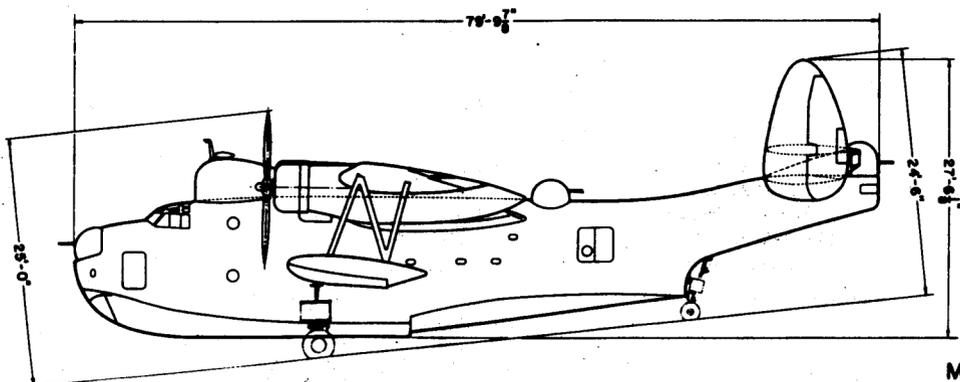
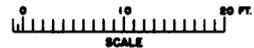
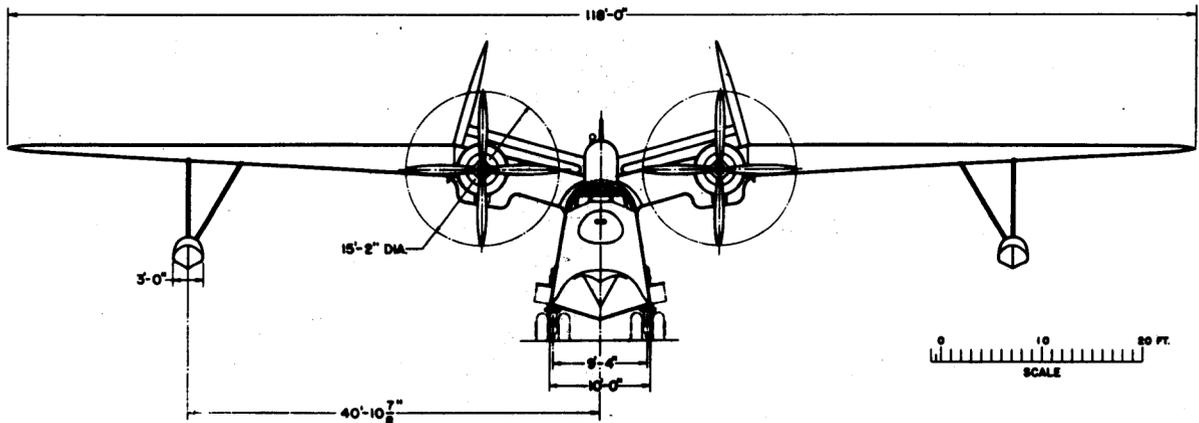
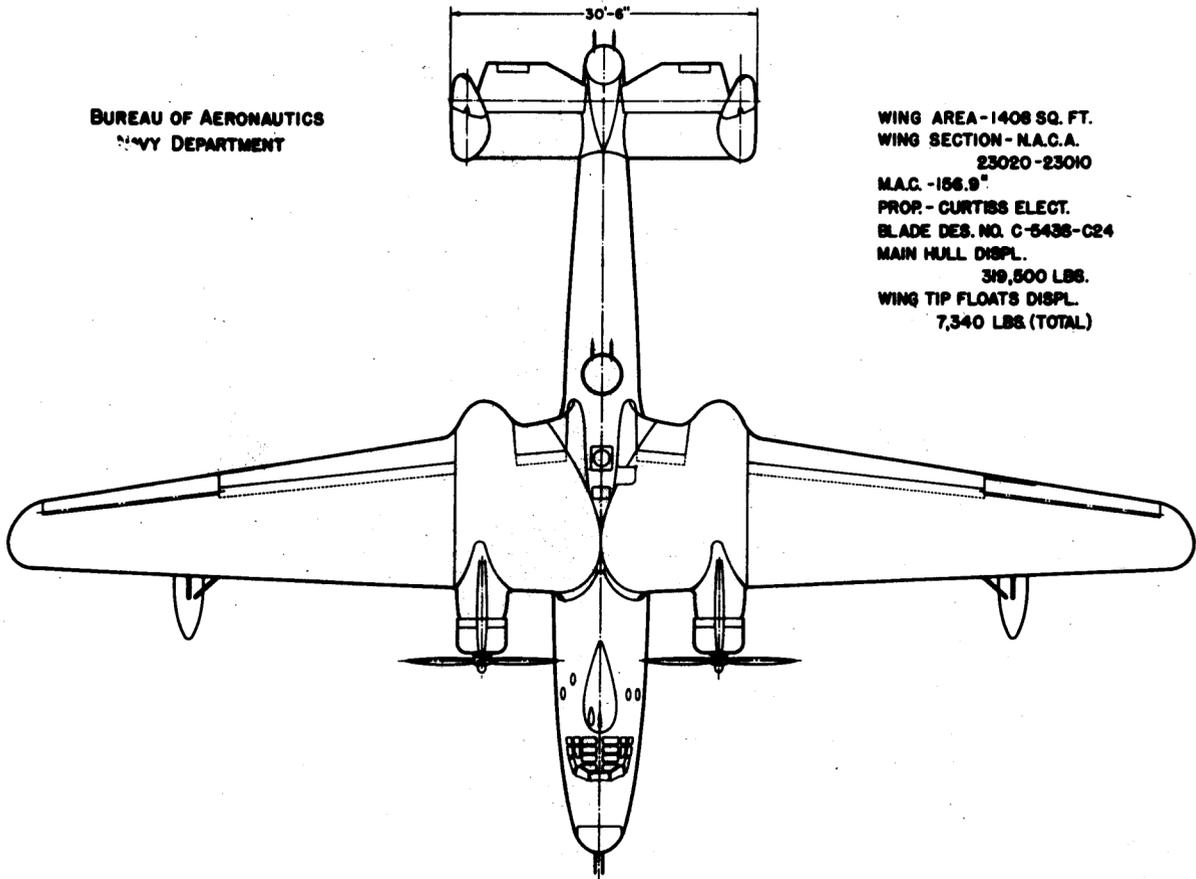


○ LOADING CONDITION COLUMN NUMBER

Maximum Ranges noted are those attainable with minimum practical airspeed.

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA-1408 SQ. FT.
WING SECTION-N.A.C.A.
23020-23010
M.A.C.-156.9"
PROP.-CURTISS ELECT.
BLADE DES. NO. C-5438-C24
MAIN HULL DISPL.
319,500 LBS.
WING TIP FLOATS DISPL.
7,340 LBS. (TOTAL)



MODEL PBM-3D

DESCRIPTIVE ARRANGEMENT

NAVAER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

- ARMOR PLATE
- SELF-SEALING TANKS
- NON SELF-SEALING TANKS

PROTECTION

- | | |
|-----------------------|-----------|
| 1. BOW TURRET | 156 LBS. |
| 2. PILOT & CO-PILOT | 184 LBS. |
| 3. FLIGHT ENGINEER | 267 LBS. |
| 4. FUEL TRUNKS | 435 LBS. |
| 5. TURRET | 188 LBS. |
| 6. SIDE WAIST | 163 LBS. |
| 7. TAIL TURRET | 100 LBS. |
| 8. SELF-SEALING CELLS | 1321 LBS. |

