

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		A. S. PATROL 4-325f (internal)	BOMBER B-1000f (internal)	MINELAYER 2-1860f (external)	FERRY
GROSS WEIGHT	LBS.	68000	68000	60000	67035
EMPTY WEIGHT - CALCULATED -	LBS.	41180			39880
FUEL/OIL	GALS.	3017/167	1973/109	1330/76	1781/212
FIXED GUNS/AMMUNITION		None			None
FLEXIBLE GUNS/AMMUNITION		8-.50 Cal./5650			None
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	38.2	38.2	33.7	37.6
POWER LOADING ①	LBS./BHP.	16.2	16.2	14.3	16.0
V-MAX. SEA LEVEL	MPH.	198	198	179	
V-MAX./CRITICAL ALT.	MPH./FT.	211/7000	211/7000	190/7000	
V-STALL GROSS WEIGHT ②	MPH.	76.1	76.1	71.5	
V-STALL WITHOUT FUEL ③	MPH.	65.2	69.2	66.6	
TIME-TO-CLIMB -10000FT-	MIN.	23.3	23.3	18.0	
TIME-TO-CLIMB -20000FT-	MIN.				
SERVICE CEILING	FT.	13100	13100	14400	
TAKE-OFF DISTANCE -CALM-	FT.				
TAKE-OFF DISTANCE -15 KN-	FT.				
TAKE-OFF DISTANCE -25 KN-	FT.				
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS	80	80	53	
RATE OF CLIMB -SL-	FT./MIN.	490	490	635	
MAX. RANGE / V-AV ③	ST. MI./MPH.	2570/154	1640/151	1000/135	3265/156
RANGE / V-AV -60%WSP ③	ST. MI./MPH.				
SEARCH RADIUS / V-AV -20%R-7-1	NM./KN.	705/132 (P-1)	450/130 (P-1)	275/117 (P-1)	
A.S.W. RADIUS / V-AV -20%R-PA-1	NM./KN.	590/132 (PA-1)		230/117 (PA-1)	
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.				

ENGINE / PROP GEAR RATIO

4 P. & W. B-1810-92 (16:9)

ENGINE RATING BHP/RPM/ALT.	NORMAL	TAKE-OFF
	1050/2550/S.L.-7000'	

TANKAGE IN GALLONS

OIL FUEL

OFFENSIVE ARMAMENT

AUX. FIXED	PROTECTED (See Note -P. 2)	260	3796*	WING BOMB-RACKS:
	UNPROTECTED			
TOTAL - FIXED INTERNAL	260	3796		Depth Bombs: 8-650f or 8-325f
DROPPABLE				Mines: 8-1000f
DROPPABLE				
TOTAL	260	3796		WING (on external bomb-racks)

NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS	Depth Bombs: 4-650f or 4-325f
	① BHP AT MAX. CRIT. ALT	
② STALL-WITH POWER		Torpedoes: 2 MK13-3
③ AT 1500 ALTITUDE		NOTE: Bomb-bay doors do not completely close when carrying 1000f or AN-M24 or MK65 1000f bomb.
		Doors close when carrying AN-M29, or MK65 1000f bomb.

Aircraft-13104 (Rev. 8-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT

COLUMN NUMBER				
	LOADING CONDITION			
	GROSS WEIGHT LBS.			
	EMPTY WEIGHT LBS.			
	FUEL/OIL GALS.			
	FIXED GUNS/AMMUNITION			
	FLEXIBLE GUNS/AMMUNITION			
	ENGINE POWER USED FOR PERFORMANCE			
	WING LOADING LBS./SQ.FT.			
	POWER LOADING ① LBS./BHP			
	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			
	RANGE / V-AV -60%NSP-③ ST. MI. / MPH			
	SEARCH RADIUS/V-AV -20%R- NMI./KM			
	A. S. W. RADIUS/V-AV -20%R- NMI./KM			
	SCOUT RADIUS NMI.			
	COMBAT RADIUS NMI.			

PERFORMANCE IS BASED ON - FLIGHT TEST

RANGE & RADIUS ARE BASED ON ENGINE REQUIREMENT

FUEL CONSUMPTION DATA INCREASED

BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

SEARCH RADIUS FORMULA NO. P-1-CONDITIONS NOS. 1, 2, 3 -

RADIUS IS 40% RANGE AT VEL. FOR MAX. RANGE AT 1500 FT. Allowance of 20% of initial fuel load for warm-up, take-off, climb and reserve is carried entire distance. Bombs, radar, tanks also carried ent. distance.

A. S. W. RADIUS FORMULA NO. PA-1-CONDITIONS NOS. 1, 3 -

RADIUS IS 1/3 RANGE AT VEL. FOR MAX. RANGE AT 1500 FT. Allowance of 20% of initial fuel load for warm-up, take-off, climb and reserve is carried entire distance. Bombs, radar, tanks also carried ent. distance.

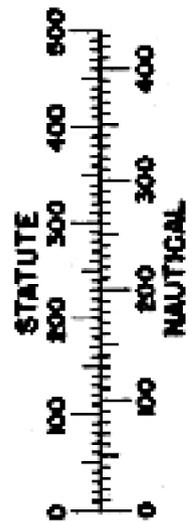
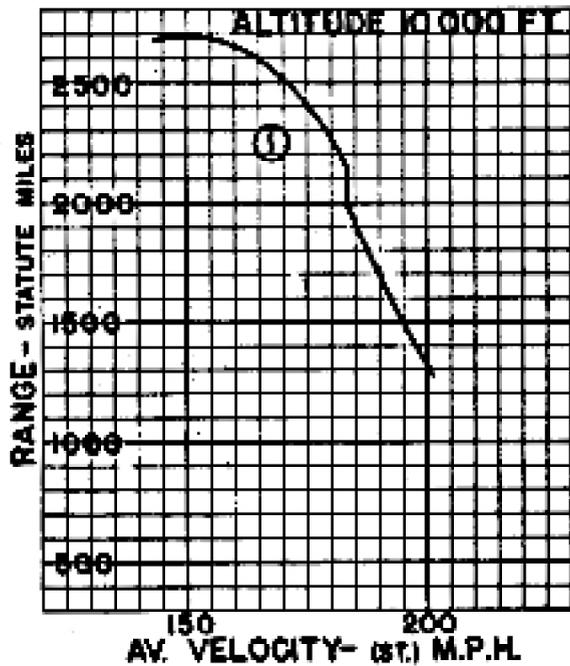
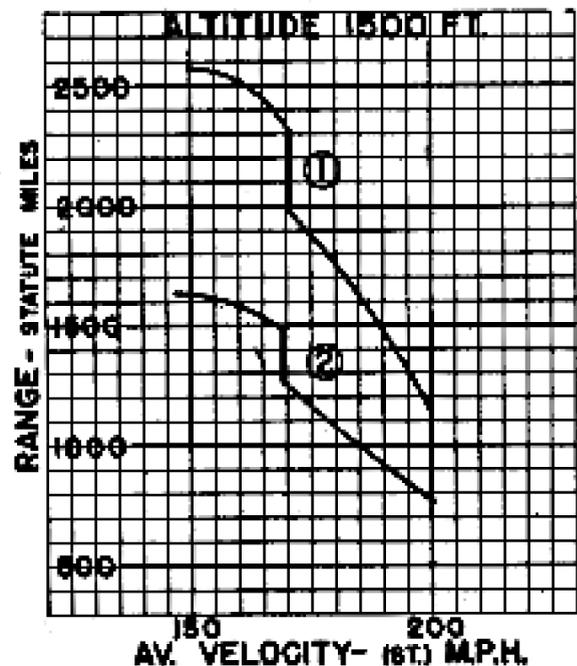
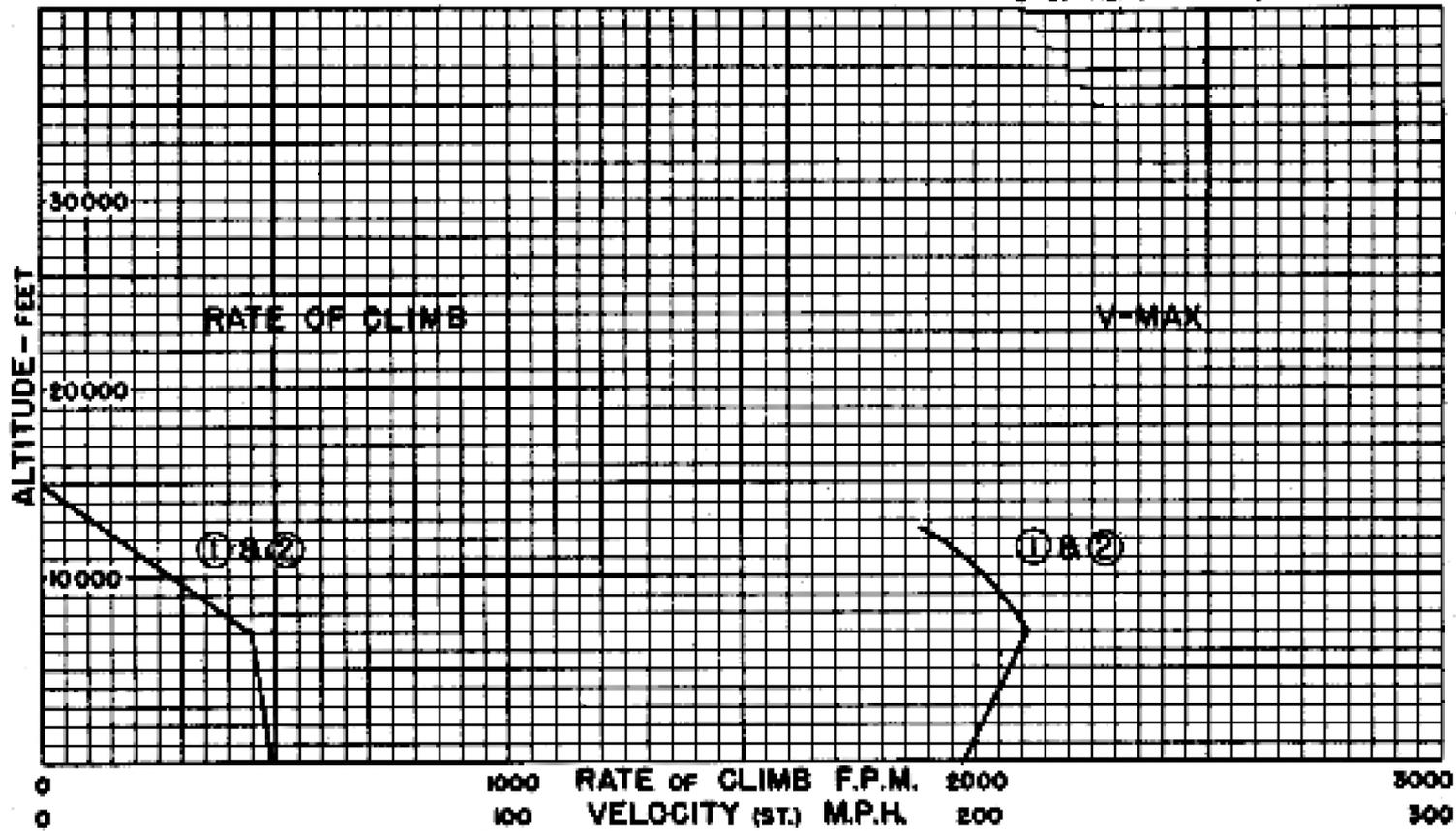
Practical Search and A.S.W. radius are reduced 2 naut. miles for each min. of combat at 1500' at full normal power.

Performance for all conditions includes effect of radar housing but does not include effect of de-icer boots. Removal of radar housing increases $V_{max}/7000'$ by 4 mph and max. range at 1500 ft. by 2% (condition 1). Addition of de-icer boots decreases $V_{max}/7000'$ by 3 mph and max. range at 1500 ft. by 2% (condition 1).

*Fuel capacities listed are those obtainable with the airplane on beaching gear. Approximately 50 more gallons may be carried with the airplane water borne.

Fuel capacities listed in column headings are available for main engines only. 15 additional gallons are carried in all conditions for Auxiliary Power Unit.

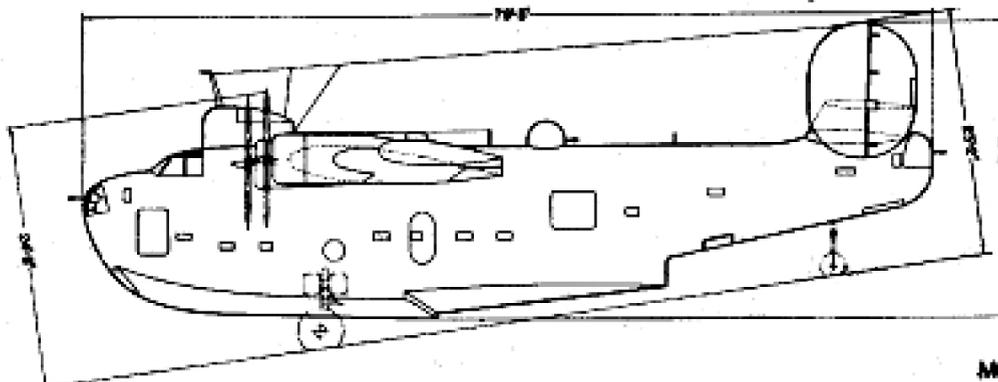
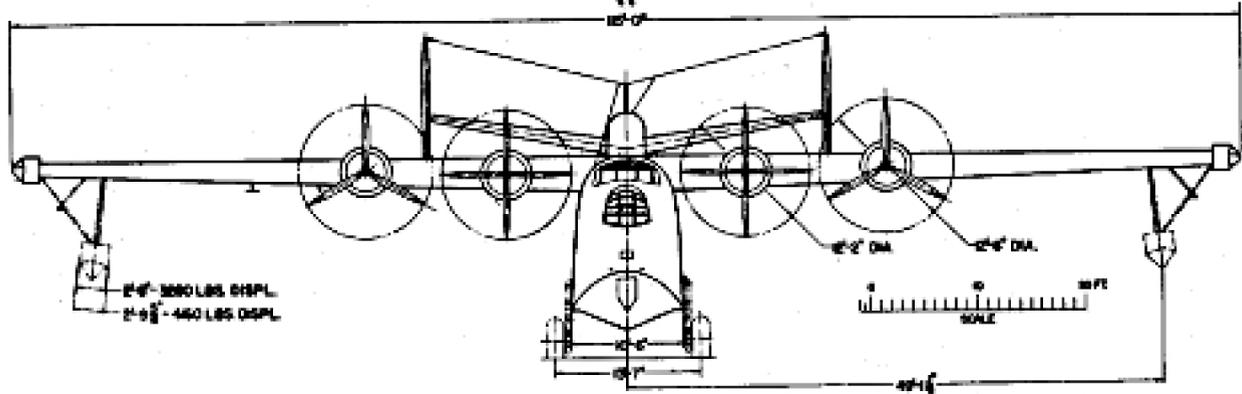
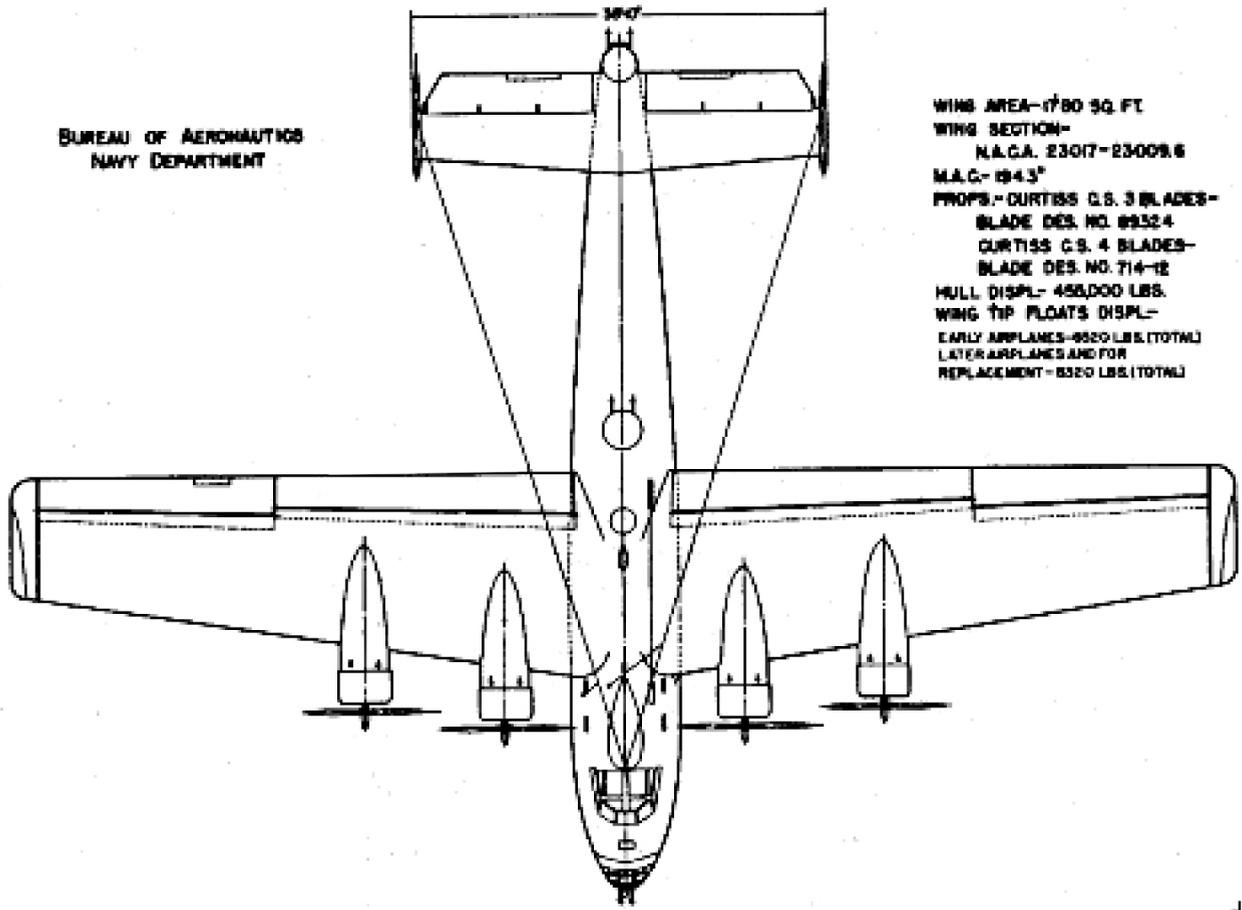
*Condition 2 - AN-MK59 bombs carried. Bomb-bay doors closed.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA-1780 SQ. FT.
WING SECTION-
N.A.C.A. 23017-23009.6
M.A.C.-194.3"
PROPS.-CURTISS C.S. 3 BLADES-
BLADE DES. NO. 89324
CURTISS C.S. 4 BLADES-
BLADE DES. NO. 714-12
HULL DISPL.-455,000 LBS.
WING TIP FLOATS DISPL.-
EARLY AIRPLANES-8520 LBS. (TOTAL)
LATER AIRPLANES AND FOR
REPLACEMENT-5320 LBS. (TOTAL)



MODEL PB2Y-5

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

-  BULLET RESISTANT GLASS
ARMOR PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS

- WEIGHTS
- 1. BOW TURRET 170 LBS.
 - 2. BOMBARDER 54 LBS.
 - 3. PILOT & CO-PILOT FWD 446 LBS.
 - 4. PILOT & CO-PILOT AFT 191 LBS.
 - 5. FLIGHT DECK 285 LBS.
 - 6. OIL TANKS 338 LBS.
 - 7. FUELERS 78 LBS.
 - 8. TOP TURRET 187 LBS.
 - 9. SIDE HAIST 179 LBS.
 - 10. TAIL TURRET 181 LBS.
 - 11. SELF-SEALING CELLS 224 LBS.

FUEL TANK CAPACITY
MAXIMUM 2000 GAL.
STANDARD 1000 GAL.

