

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		A.S. PATROL 4-325# (internal)	BOMBER 8-1000# (internal)	MINELAYER 2-1860# (external)	FERRY
GROSS WEIGHT	LBS.	68000	68000	60000	64393
EMPTY WEIGHT	- ACTUAL - LBS.	41031			38840
FUEL / OIL	GALS.	2945/164	1898/105	1257/71	3485/224
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.	38.2	38.2	33.7	36.1
POWER LOADING ①	LBS./BHP.	17.0	17.0	15.0	16.1
V-MAX. SEA LEVEL	MPH.	199	199	181	
V-MAX./CRITICAL ALT.	MPH./FT.	224/19500	224/19500	205/19500	
V-STALL GROSS WEIGHT ②	MPH.	76.1	76.1	71.5	
V-STALL WITHOUT FUEL ②	MPH.	65.5	69.5	66.9	
TIME-TO-CLIMB -10000FT-	MIN.	21.7	21.7	16.5	
TIME-TO-CLIMB -20000FT-	MIN.	57.6	57.6	43.8	
SERVICE CEILING	FT.	20900	20900	21900	
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.	550	550	700	
MAX. RANGE / V-AV. ③	ST. MI. / MPH.	2310/140	1380/143	890/136	3120/136
RANGE / V-AV. -60%NSP-③-	ST. MI. / MPH.				
SEARCH RADIUS / V-AV. -20%R- P-1	NMI./KN.	625/122 (P-1)	375/124 (P-1)	245/118 (P-1)	
A.S.W. RADIUS / V-AV. -20%R-PA-1	NMI./KN.	520/122 (PA-1)		205/118 (PA-1)	
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.				

ENGINE / PROP GEAR RATIO		4 P & W R-1830-88 (16:9)			
ENGINE RATING BHP/RPM/ALT.	NORMAL	TAKE-OFF			
	1100/2550/S.L.	NOTE			
	1100/2550/3300				
	1040/2550/5000	1200/2700	Max. Range for condition 3, only is limited by minimum recommended flying speed.		
	1050/2550/12500				
	990/2550/14500				
	1000/2550/19500				

TANKAGE IN GALLONS			OIL FUEL		OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED (See Note P-2)	240	1575*	WING BOMB-BAYS:		
	UNPROTECTED		1925	Bombs: 8-1600#, 8-1000#, 8-500#, 8-250#, or 8-100#		
	TOTAL-FIXED INTERNAL		3500	Depth Bombs: 8-650# or 8-325#		
	DROPPABLE			Mines: 8-1000#		
	DROPPABLE					
TOTAL		240	3500	WING (on external bomb-racks)		
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS			Bombs: 4-1600#, 4-1000#, 4-500#, 4-250# or 4-100#		
	① BHP AT MAX. CRIT. ALT.				Depth Bombs: 4-650# or 4-325#	
	② STALL-WITH POWER				Mines: 2-2000#, 2-1860# or 4-1000#	
	③ AT 1500 ALTITUDE				Torpedoes: 2 MK13-3	
NOTE: Bomb-bay doors do not completely close when carrying 1000# or AN-MK44 or MK65 1000# bomb.						
Doors close when carrying AN-MK59 or MK32 1000# bomb.						

SUPERSEDES 1 NOV. 1943

NAVAER-15198 (Rev. 9-44)

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. / KN.			
A. S. W. RADIUS / V-AV. -20%R-	NMI. / KN.			
SCOUT RADIUS	NMI.			
COMBAT RADIUS	NMI.			

PERFORMANCE IS BASED ON - FLIGHT TEST

RANGE & RADIUS ARE BASED ON FLIGHT TEST

FUEL CONSUMPTION DATA INCREASED

BY 5 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.

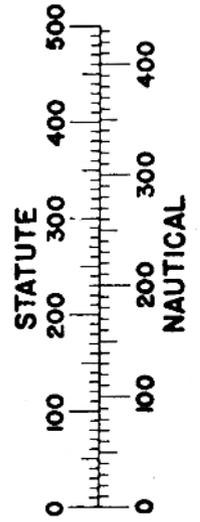
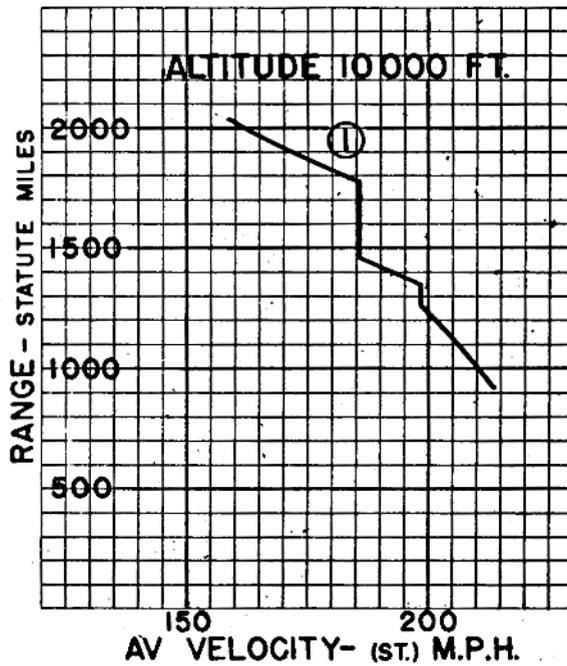
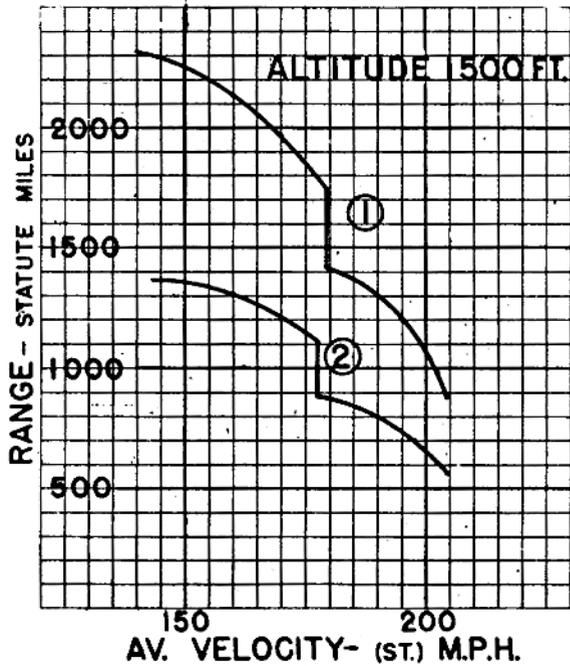
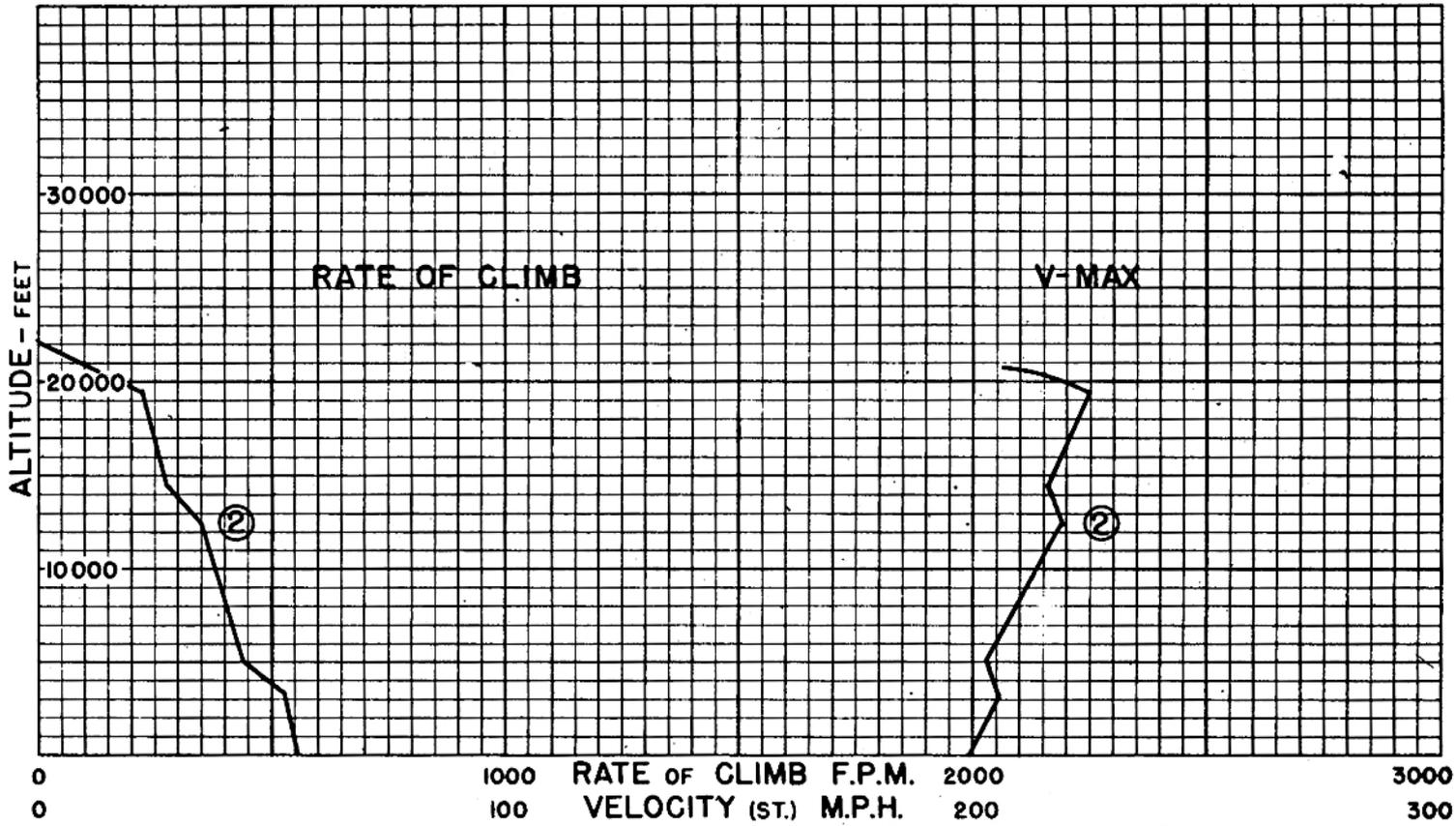
Practical Search and A.S.W. radius are reduced 2 naut. miles for each min. of combat at 1500' at full normal power.

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.

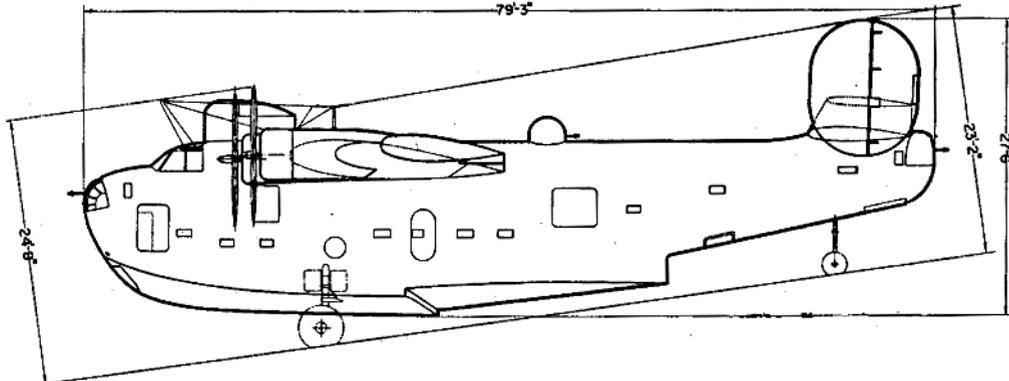
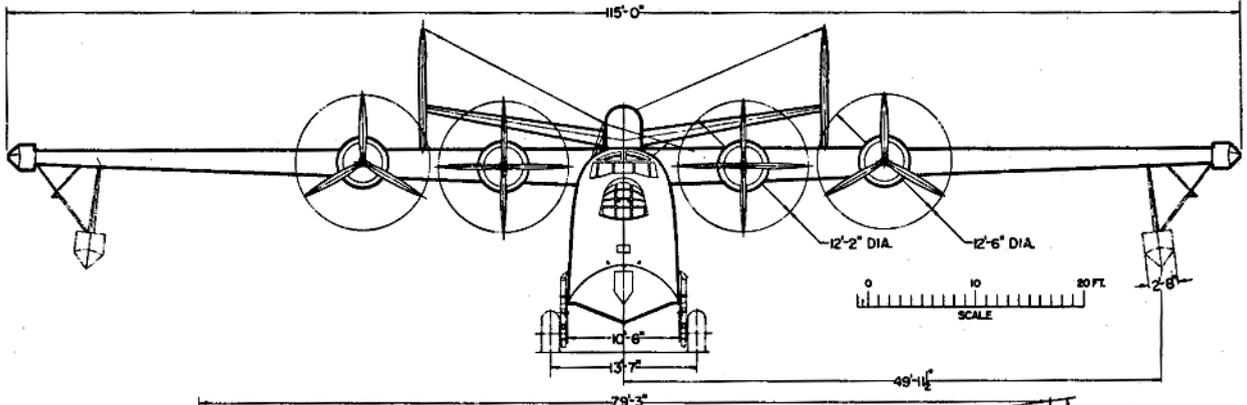
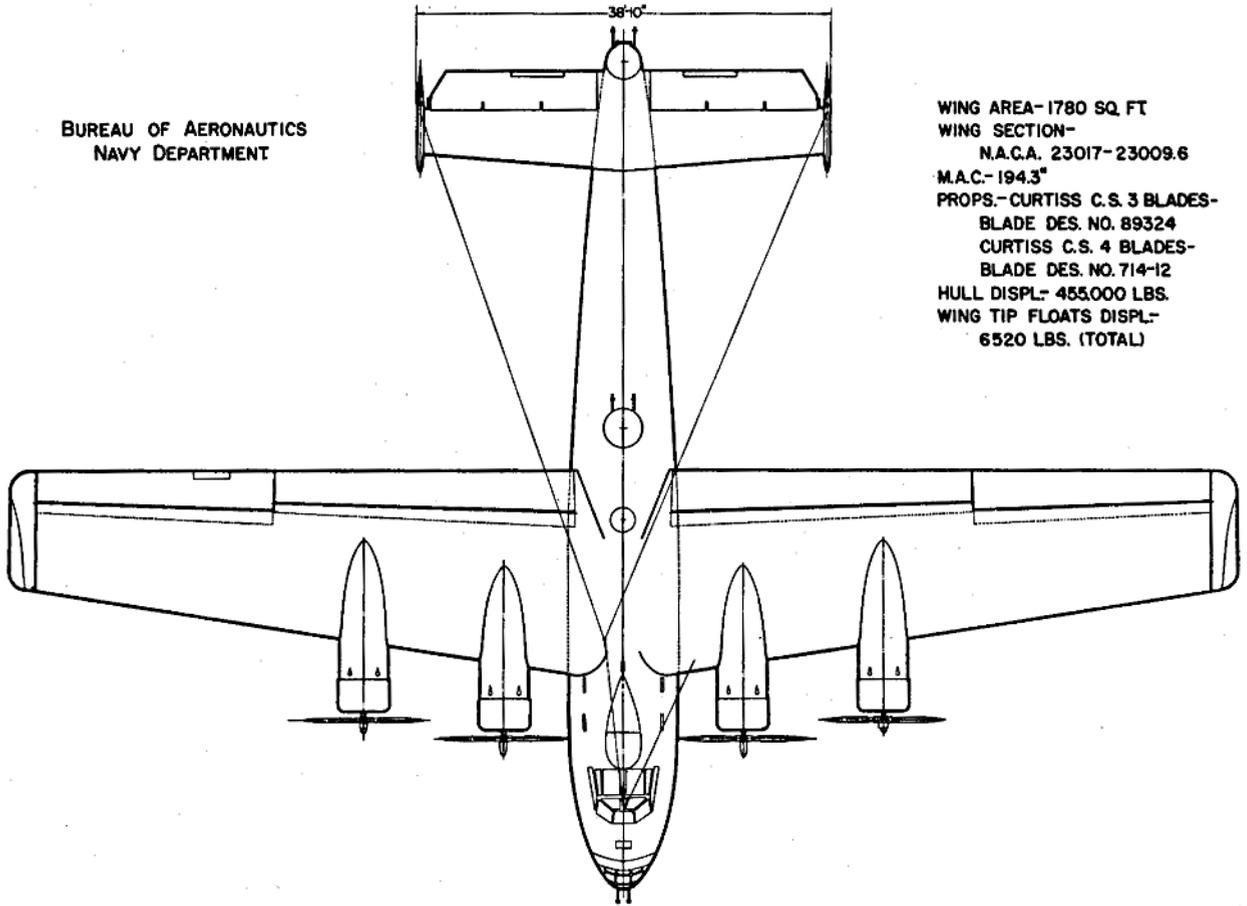
Condition 2 - AN-MK59 bombs carried. Bomb-bay doors closed.



○ 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.-
6520 LBS. (TOTAL)



MODEL PB2Y-3

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

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

PROTECTION

1. BOW TURRET	166 LBS.
2. BOMBARDIER	60 LBS.
3. PILOT & CO-PILOT	177 LBS.
4. FLIGHT DECK	277 LBS.
5. OIL TANKS	599 LBS.
6. FLARES	79 LBS.
7. TOP TURRET	231 LBS.
8. SIDE WAIST	284 LBS.
9. TAIL TURRET	120 LBS.
10. SELF-SEALING CELLS	654 LBS.

FUEL TANK CAPACITY

MAXIMUM	3550 GALS.
BEACHING GEAR POSITION	3500 GALS.

