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NAVAER 1519A (REV 2-47)

ISSUE OF 6 PAGES

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2		
LOADING CONDITION		RECON = NAISSANCE	RECON - NAISSANCE		
GROSS WEIGHT	LBS.	63000	63000		
EMPTY WEIGHT (ESTIMATED)	LBS.	37160			
FUEL/OIL	GALS.	3093/156	3093/156		
FIXED GUNS/AMMUNITION		NONE			
FLEXIBLE GUNS/AMMUNITION		8-.50 Cal./3770 rds.			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL		
WING LOADING	LBS./SQ.FT.	60.1	60.1		
POWER LOADING ①	LBS./BHP.	13.1	14.3		
V-MAX. SEA LEVEL	KN.	200	193		
V-MAX.	KN./FT.	248/26700	239/26600		
V-STALL GROSS WEIGHT ②	KN.	84.5	84.5		
V-STALL WITHOUT FUEL ②	KN.	71.0	71.0		
TIME-TO-CLIMB -10000 FT.-	MIN.	11.2	13.3		
TIME-TO-CLIMB -20000 FT.-	MIN.	23.9	28.3		
SERVICE CEILING	FT.	31900	31000		
TAKE-OFF DISTANCE -CALM-	FT.	2645	2645		
TAKE-OFF DISTANCE -15 KN-	FT.	1963	1963		
TAKE-OFF DISTANCE -25 KN-	FT.	1563	1563		
TAKE-OFF DISTANCE -50 FT. OBST.	FT.	4510	4510		
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	890	750		
MAX. RANGE /V-AV. ③	N MI./KN.		2860/130		
RANGE /V-AV. -60% NSP-③-	N MI./KN.				
SEARCH RADIUS /V-AV. -20% R-	N MI./KN.				
AS.W. RADIUS/V-AV. -20% R-	N MI./KN.				
RECON. RADIUS	N MI.		886/147		
COMBAT RADIUS	N MI.				
ENGINE / PROP GEAR RATIO 4 P & W R-1830-43 or -65 /16:9					
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE-OFF	
	1200/2700/SL-25000'	1100/2550/SL-25000'		1200/2700/SL	
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED	156	2814	NONE	
	UNPROTECTED				
	TOTAL-FIXED INTERNAL	156	2814	Camera equipment in aft bomb bay. Provisions for two	
	DROPPABLE			400 gallon fuel tanks in forward bomb bay.	
	DROPPABLESS, Fwd, Bomb Bay		400		
TOTAL		156	3214		
NOTE	① BHP AT MAX. CRIT. ALT.				
	② STALL - WITH POWER				
	③ AT 1500' ALTITUDE				

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Performance is based on flight test. Range and radius are based on flight test fuel consumption data increased by 5% to conform with past experience.

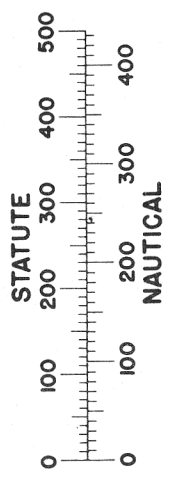
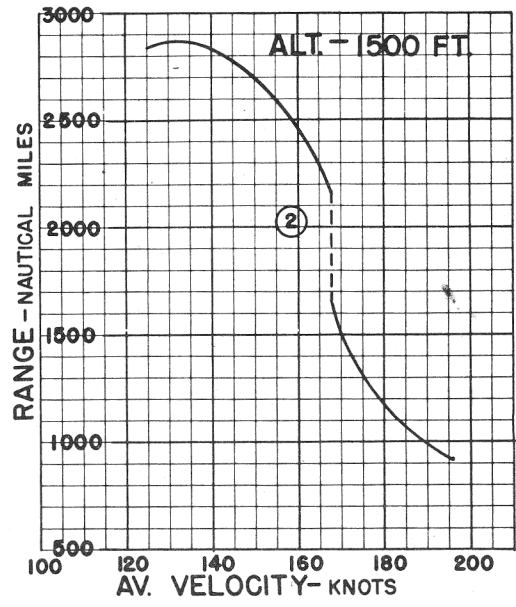
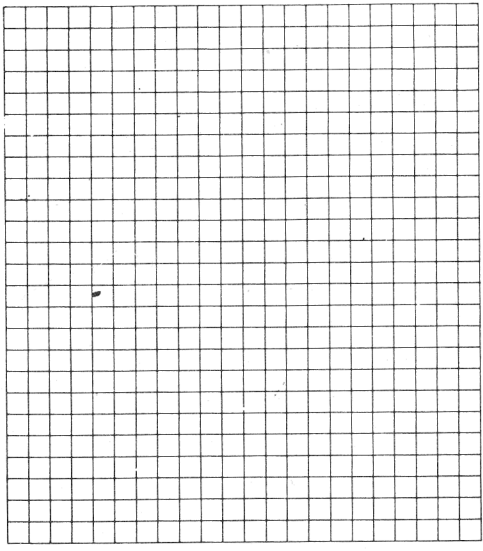
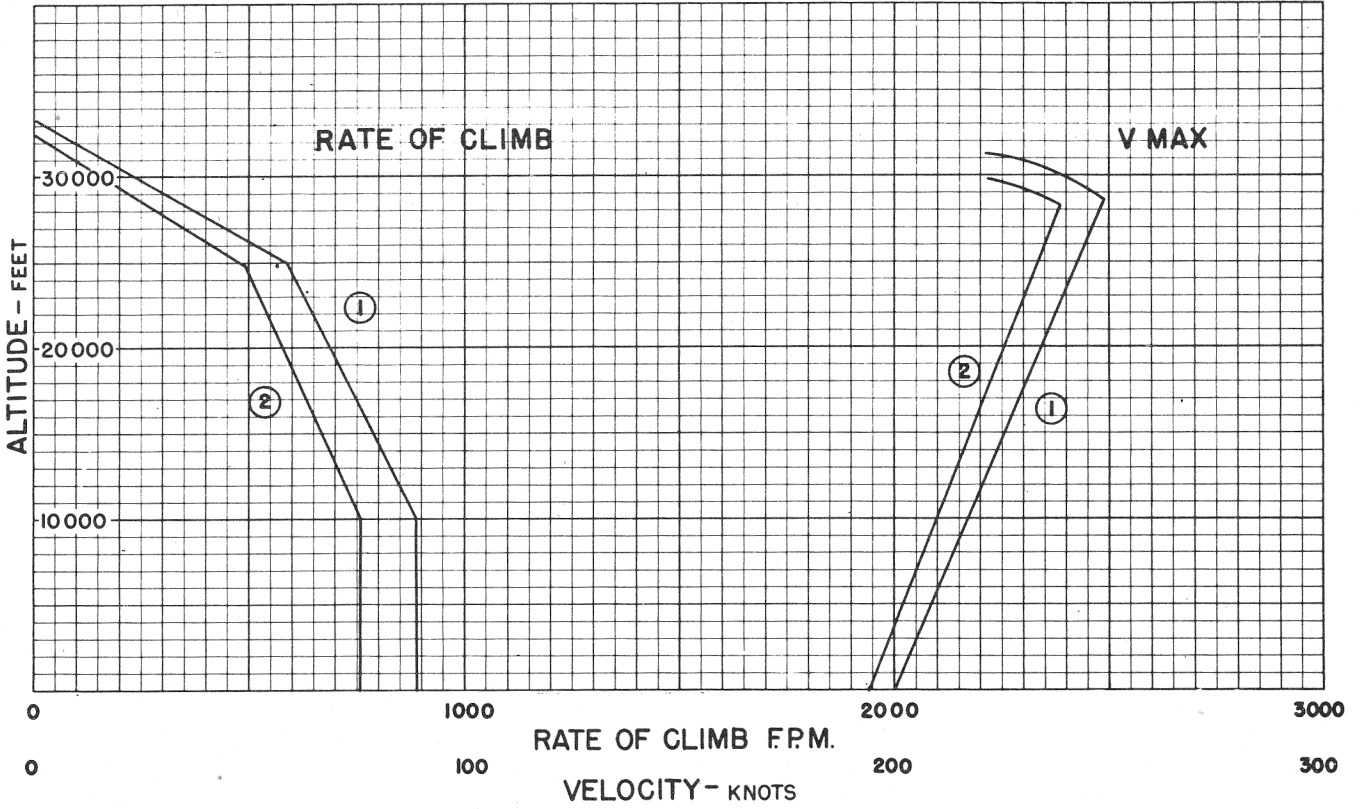
Performance computed with 6477A-0 propeller blades. Installation of 6353A-18 blades increases take-off distance over 50 ft. obstacle by 200 ft. but has negligible effect on range and Vmax.

Performance in all conditions with radome extended. With radome retracted, Vmax at airplane critical altitude increases 10.5 knots.

Reconnaissance radius: 10% reserve for warm-up, take-off and landing carried for entire flight. Climb to 10,000' at normal power. Cruise out at speed for maximum range. Climb to 20,000' and cruise for one hour toward, over and away from target, at normal power. Descend to 10,000' using no fuel. Return at 10,000' at speed for maximum range.

Reconnaissance radius is reduced 4 nautical miles for each minute of military power.

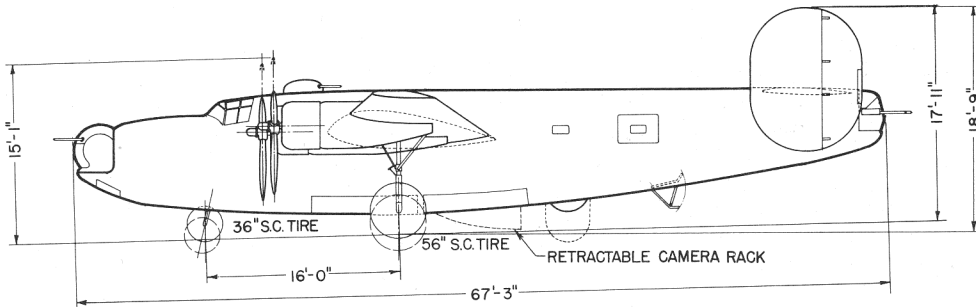
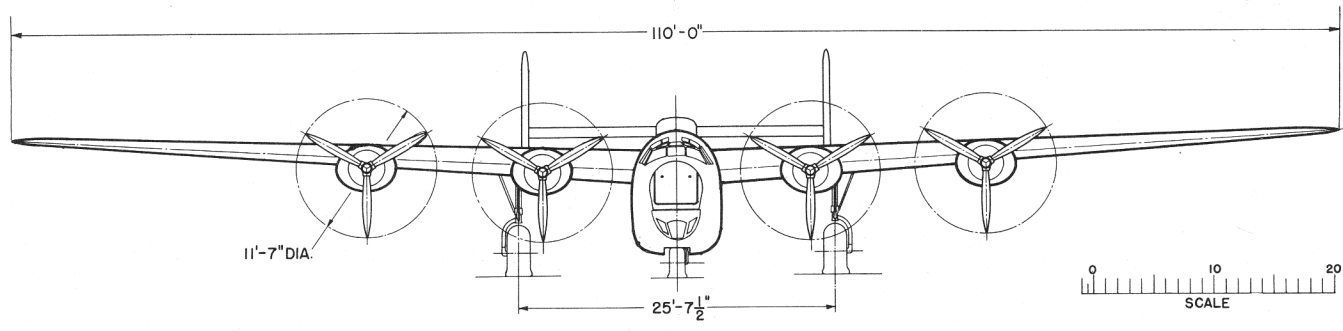
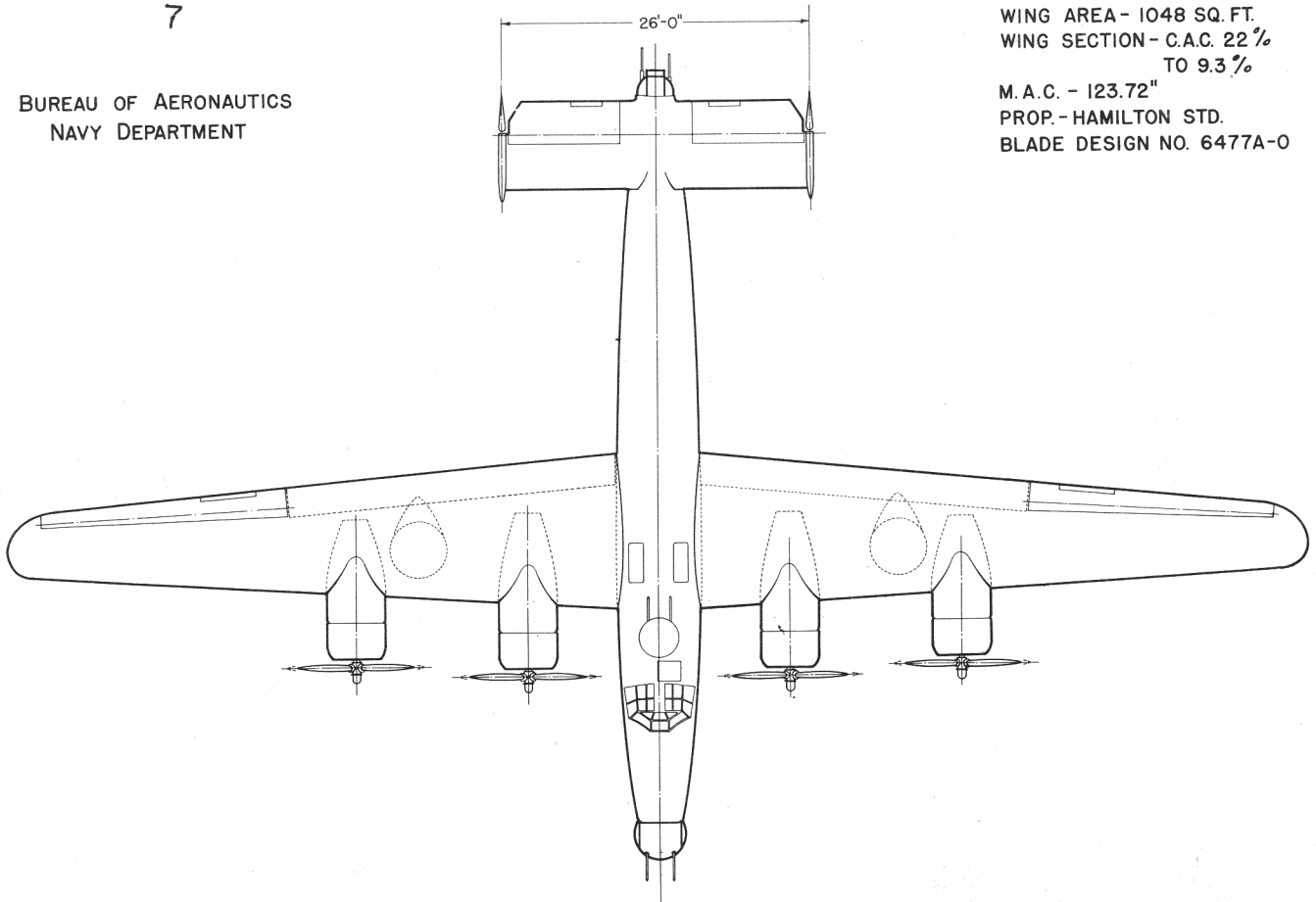
Addition of wing and tail de-icer boots reduces maximum range 1.7% and reduces Vmax 6 knots at airplane critical altitude.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 1048 SQ. FT.
WING SECTION - C.A.C. 22%
TO 9.3%
M. A. C. - 123.72"
PROP. - HAMILTON STD.
BLADE DESIGN NO. 6477A-0



MODEL PB4Y-1P

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

■ BULLET RESISTANT GLASS
ARMOR PLATE
▨ SELF-SEALING TANKS

PROTECTION

1. PILOT & CO-PILOT FW'D	409 LBS.
2. PILOT & CO-PILOT AFT.	326 LBS.
3. RADIO OPERATOR	89 LBS.
4. TOP TURRET	151 LBS.
5. BOW TURRET	72 LBS.
6. SIDE WAIST GUNS	114 LBS.
7. TAIL TURRET	68 LBS.
8. GUNNER'S B.R. GLASS	89 LBS.
9. SELF-SEALING CELLS	2110 LBS.

