

ISSUE OF 4 PAGES
AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		SEARCH	SEARCH	SEARCH 1-150 GAL. TANK EXT.	SEARCH 2-150 GAL. TANK EXT.
GROSS WEIGHT	LBS.	19358	19358	20478	21560
EMPTY WEIGHT	LBS.				
FUEL / OIL	GALS.	420/23	420/23	570/32	720/36
FIXED GUNS/AMMUNITION		NONE			
FLEXIBLE GUNS/AMMUNITION		NONE			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	35.3	35.3	37.3	39.3
POWER LOADING ①	LBS./BHP.	8.4	8.4	8.9	9.4
V-MAX. SEA LEVEL	KN.	235	215	209	204
V-MAX.	KN/FT.	241/2100	232/7900	225/7800	219/7800
V-STALL GROSS WEIGHT ②	KN.	70.3	70.3	73.2	76.0
V-STALL. WITHOUT FUEL ②	KN.	65.5	65.5	66.8	68.0
TIME-TO-CLIMB -10000 FT.-	MIN.	6.0	6.6	7.3	8.0
TIME-TO-CLIMB -20000 FT.-	MIN.	22.5	23.5	31.4	----
SERVICE CEILING	FT.	21500	21500	20100	18900
TAKE-OFF DISTANCE -CALM-	FT.	726	726	870	1010
TAKE-OFF DISTANCE -15 KN-	FT.	457	457	560	660
TAKE-OFF DISTANCE -25 KN-	FT.	305	305	390	468
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	2150	1630	1490	1380
MAX. RANGE / V-AV. ③	N MI./KN.		1070/135	1370/135	1575/135
RANGE / V-AV. -60% NSP-③-	N MI./KN.				
SEARCH RADIUS / V-AV. -20% R-	N MI./KN.				
A.S.W. RADIUS / V-AV. -20% R-	N MI./KN.		270/150	340/150	400/150
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.				
ENGINE / PROP GEAR RATIO P & W R2800-46W/.45					
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE OFF	
	2300/2800/S.L.-600	1800/2600/S.L.-6500		2300/2800/S.L.	

TANKAGE IN GALLONS		OIL	FUEL	
AUX. FIXED	PROTECTED		420	Performance is based on calculations. Range and radius are based on engine specification fuel consumption data increased by 15 per cent to conform with past experience.
	UNPROTECTED	36		
	TOTAL - FIXED INTERNAL	36	420	
	DROPPABLE -Wings 2 @ 150		300	
	DROPPABLE			
TOTAL		36	720	
NOTE	① BHP AT MAX. CRIT. ALT.			
	② STALL - WITHOUT POWER			
	③ AT 1500' ALTITUDE			

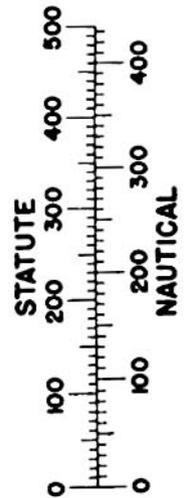
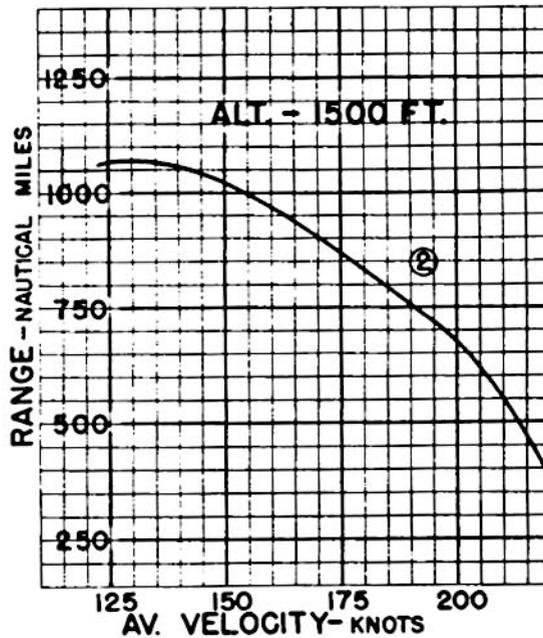
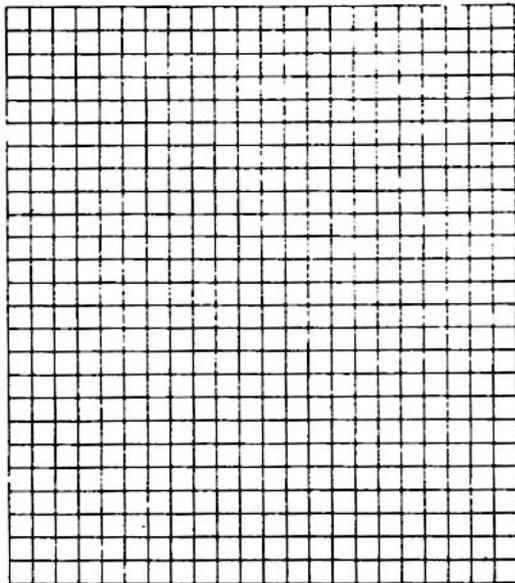
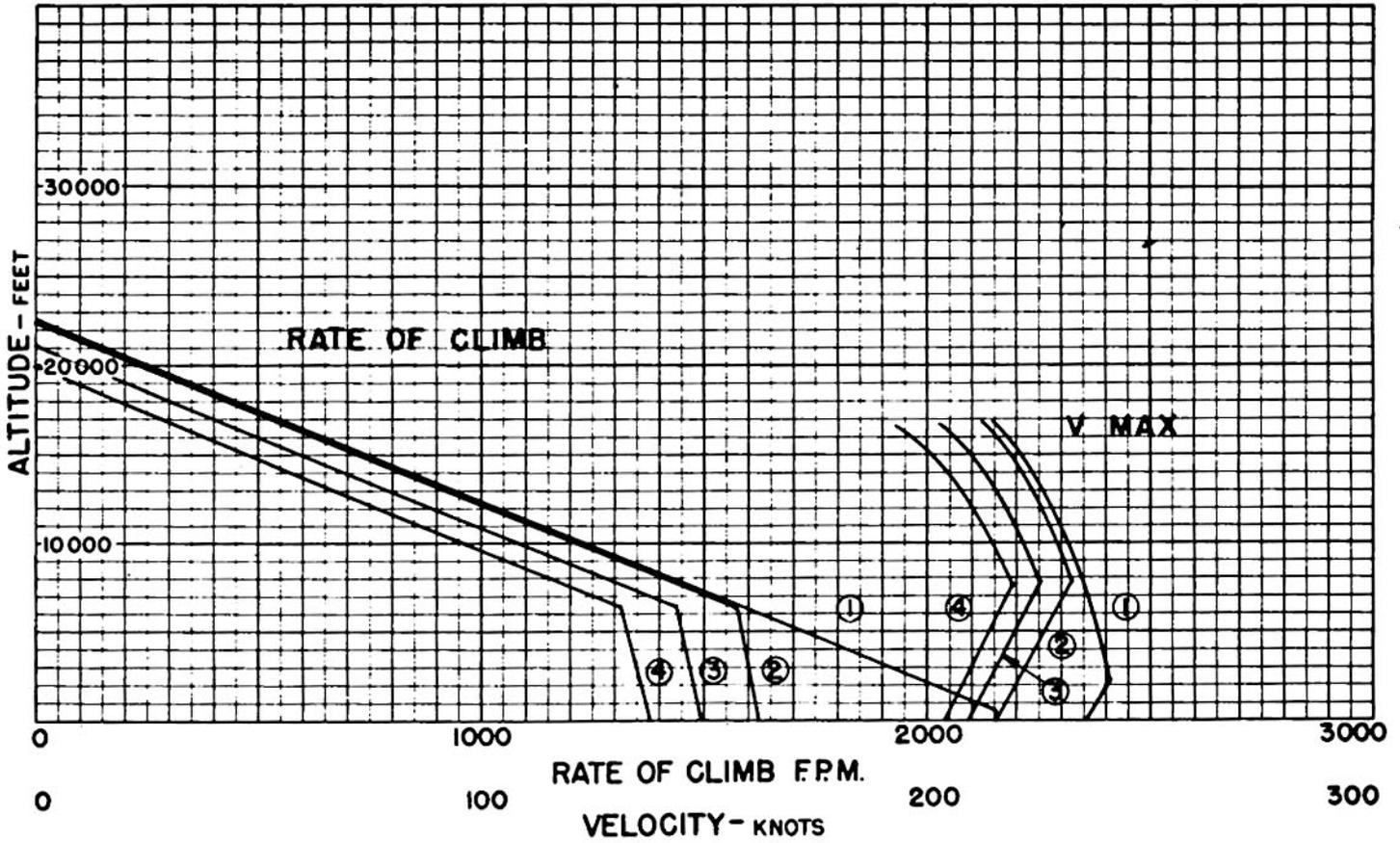
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BUREAU OF AERONAUTICS, NAVY DEPT.

Search Condition: AN/APS-20A Radar, 2-MK51 wing bomb racks, 18-AN/CRB-1B Sonobouys, 20-MK5 float lights, 2-MK6-2 aircraft float lights, K 25 camera and Edgerton D-1 Flasher are aboard.

A.S.W. Radius Formula No. PA-1 (Mod.) Cond. Nos. 1, 2, 3, 4.

Radius is 1/3 range at 150 kn. at 1500 ft. altitude. Allowance of 20% of initial fuel load for warm-up, take-off, climb and reserve is carried entire distance. Sonobouys, float lights, and tanks are carried entire distance.



○ LOADING CONDITION COLUMN NUMBER

MODEL XTB3F-1S

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 548.7
WING SECTION - N.A.C.A. 23018-23012
M.A.C. - 115.07

- SELF-SEALING TANKS
- ⊗ NON SELF-SEALING TANKS

