

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		FIGHTER	FIGHTER	FIGHTER	FIGHTER ONE TANK EXTERNAL
GROSS WEIGHT	LBS.	16722	16722	16722	17783
EMPTY WEIGHT - Estimated -	LBS.	13107			
FUEL/OIL	GALS.	300/20	300/20	300/20	450/26
FIXED GUNS/AMMUNITION		6-.50 cal./2400 rds.			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		WAR EMERGENCY	MILITARY	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	39.2	39.2	39.2	41.7
POWER LOADING ①	LBS./BHP.	5.2	6.2	7.6	8.1
V-MAX. SEA LEVEL	KN.	318	294	273	256
V-MAX. AIRPLANE CRIT. ALT.	KN/FT.	413/28000	393/29200	366/30900	340/30400
V-STALL GROSS WEIGHT ②	KN.			91.2(67.7)	93.8(72.0)
V-STALL WITHOUT FUEL ②	KN.			86.0(58.2)	86.0(59.0)
TIME-TO-CLIMB -10000 FT.-	MIN.	2.8	3.4	5.2	5.9
TIME-TO-CLIMB -20000 FT.-	MIN.	5.8	7.2	11.3	13.0
SERVICE CEILING	FT.	•34500	33600	32700	31600
TAKE-OFF DISTANCE -CALM-	FT.			975	1253
TAKE-OFF DISTANCE -15 KN-	FT.			697	911
TAKE-OFF DISTANCE -25 KN-	FT.			541	719
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	3590	3120	2050	1850
MAX. RANGE /V-AV. ③	N MI./KN.			710/174	910/175
BOMBING RADIUS/V-AV -20% R-	N MI./KN.				
BOMBING RADIUS/V-AV -33% R-	N MI./KN.				
PATROL RADIUS/V-AV -20% R-	N MI./KN.				
PATROL RADIUS/V-AV -33% R-	N MI./KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.			45	190
ENGINE / PROP GEAR RATIO 2 P&W XR2000 - 2 (Turbo) (.178 + .382 gear shift)					
ENGINE RATING BHP/RPM/ALT.	WAR EMERGENCY	MILITARY	NORMAL	TAKE OFF	
	1600/2700/S. L. - 23900'	1350/2700/S. L. - 25500'	1100/2550/S. L. - 27700	1350/2700	
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED	26	300	Wings (External)	
	UNPROTECTED			Bombs: 2-500#	
	TOTAL - FIXED INTERNAL	26	300	2-1000#	
	DROPPABLE				
	DROPPABLE - Wing - 1@150		150		
TOTAL		26	450		
NOTE	① BHP AT MAX. CRIT. ALT.				
	② STALL-WITHOUT POWER (With T.O. power)				
	③ AT 1500 ft. ALTITUDE				

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DATE 1 JUNE 1944

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MODEL XF5U-1

NAVAER-15198 (Rev. 9-44)

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BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER	5		
LOADING CONDITION	BOMBER 2-1000# EXTERNAL		
GROSS WEIGHT	LBS.	18772	
EMPTY WEIGHT - Estimated -	LBS.	13107	
FUEL/OIL	GALS.	300/20	
FIXED GUNS/AMMUNITION	6-.50 cal./2400 rds.		
FLEXIBLE GUNS/AMMUNITION	NONE		
ENGINE POWER USED FOR PERFORMANCE	NORMAL		
WING LOADING	LBS./SQ.FT.	44.0	
POWER LOADING ①	LBS./BHP	8.5	
V-MAX. SEA LEVEL	KN	248	
V-MAX. AIRPLANE CRIT. ALT.	KN/FT	323/30200	
V-STALL. GROSS WEIGHT ②	KN	96.2/75.9	
V-STALL. WITHOUT FUEL ②	KN	91.4/68.4	
TIME-TO-CLIMB -10000 FT.-	MIN.	6.8	
TIME-TO-CLIMB -20000 FT.-	MIN.	15.4	
SERVICE CEILING	FT.	30500	
TAKE-OFF DISTANCE -CALM-	FT.	1590	
TAKE-OFF DISTANCE -15 KN.-	FT.	1175	
TAKE-OFF DISTANCE -25KN.-	FT.	936	
TAKE-OFF TIME	SECONDS.		
RATE OF CLIMB -SL-	FT./MIN.	1640	
MAX. RANGE /V-AV. ③	NMI/KN	510/177	
BOMBING RADIUS/V-AV -20%R-	NMI/KN.		
BOMBING RADIUS/V-AV -33%R-	NMI/KN.		
PATROL RADIUS/V-AV -20%R-	NMI/KN.		
PATROL RADIUS/V-AV -33%R-	NMI/KN.		
SCOUT RADIUS	NMI.		
COMBAT RADIUS	NMI.		

PERFORMANCE IS BASED ON - CALCULATIONS

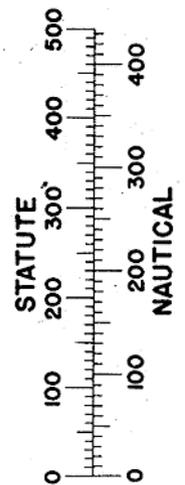
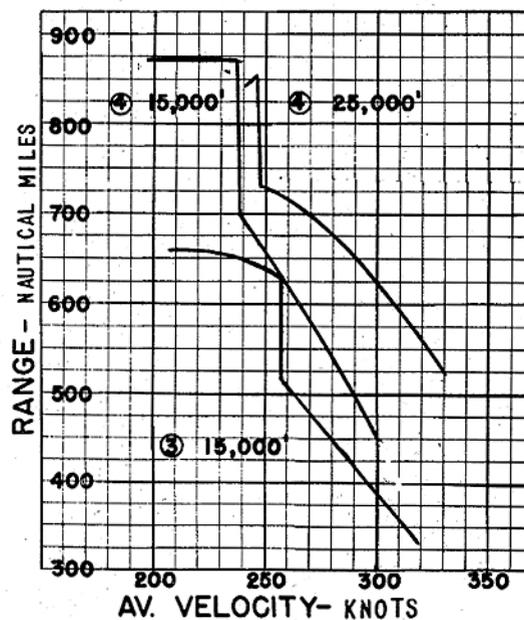
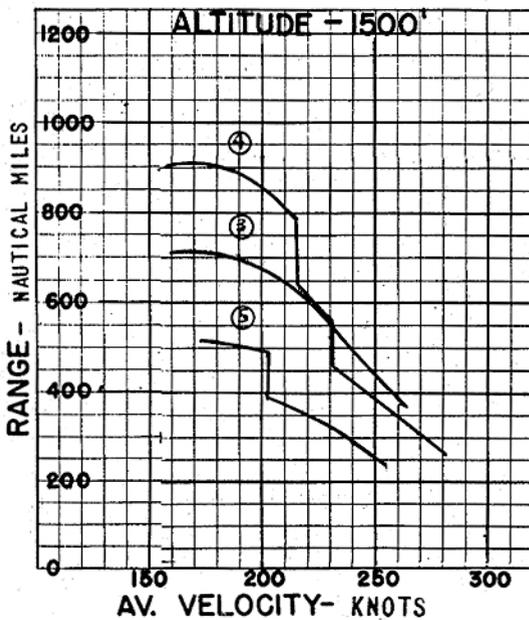
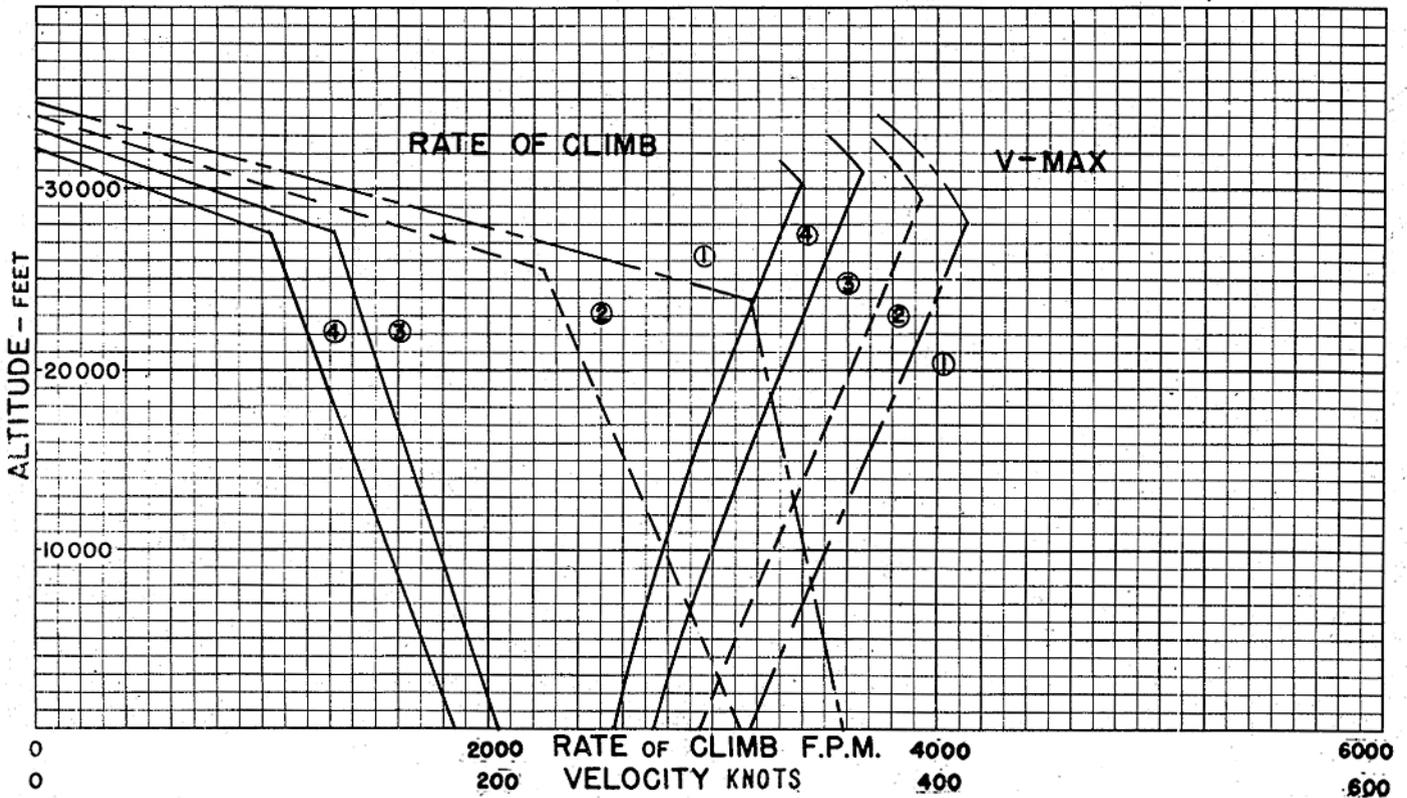
RANGE & RADIUS ARE BASED ON ENGINE REQUIREMENT

FUEL CONSUMPTION DATA INCREASED

BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

Practical Combat Radius is based on 20 min. warm up and idling, 1 MIN. T.O., 10 min. rendezvous at 60% normal sea level power (n.s.p.) and auto rich, climb to 15000 ft. at full normal power and auto rich, cruise out at V for max. range and auto lean, drop bombs and unprotected drop tanks, combat for 10 min. at war emergency power plus 10 min. at military power; cruise back at V for max. range and auto lean at 1500 ft.; 60 min. at V for max. range allowed for rendezvous, landing and reserve. Radius includes distance covered in climb but not in descent.

This airplane does not have sufficient fuel to give it a combat radius for the present problem.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 475 SQ. FT.
WING SECTION - NACA. 0016
M.A.C. - 238"
PROP. - CHANCE VOUGHT DESIGN

