

**AIRPLANE CHARACTERISTICS & PERFORMANCE**

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER			1	2	3	4
LOADING CONDITION			FIGHTER	FIGHTER	FIGHTER	FIGHTER
GROSS WEIGHT	LBS.		17508	17508	19515	21691
EMPTY WEIGHT - ESTIMATED -	LBS.		13519			
FUEL/OIL	GALS.		384/22	384/22	654/36	954/40
FIXED GUNS/AMMUNITION			6-.50 cal./2400 rds			
FLEXIBLE GUNS/AMMUNITION			None			
ENGINE POWER USED FOR PERFORMANCE			MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.		35.6	35.6	39.8	44.3
POWER LOADING ①	LBS./BHP.		6.9	7.8	8.7	9.6
V-MAX. SEA LEVEL	MPH.		340	319	318	305
V-MAX. AIRPLANE CRIT. ALT.	MPH.		411/26900	399/26400	396/26300	375/26100
V-STALL GROSS WEIGHT ②	MPH.		82.3	82.3	86.8	92.5
V-STALL WITHOUT FUEL ②	MPH.		76.6	76.6	77.6	79.4
TIME-TO-CLIMB -10000FT-	MIN.		3.8	4.6	5.4	6.4
TIME-TO-CLIMB -20000FT-	MIN.		8.1	9.8	11.6	14.2
SERVICE CEILING	FT.		35,300	34,500	33,000	30,900
TAKE-OFF DISTANCE -CALM-	FT.		639	639	825	1110
TAKE-OFF DISTANCE -15 KN-	FT.		415	415	550	760
TAKE-OFF DISTANCE -25 KN-	FT.		293	293	397	563
TAKE-OFF TIME	SECONDS					
RATE OF CLIMB -SL-	FT./MIN.		2800	2190	1900	1590
MAX. RANGE/V-AV ③	STMI/MPH.			1305/162	2100/174	2780/171
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	N MI.					
COMBAT RADIUS	N MI.			170	515	850
ENGINE / PROP GEAR RATIO			P. & W. XR-4360-10 (.381)			
ENGINE RATING BHP/RPM/ALT.	MILITARY		NORMAL		TAKE-OFF	
	3000/2700/S. L. - 1500'		2500/2550/S. L.			
	2750/2700/14500'		2380/2550/14500'		3000/2700	
	2540/2700/22000'		2250/2550/23000'			
TANKAGE IN GALLONS			OIL	FUEL	OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED			384	FUSELAGE BOMB-BAY:	
	UNPROTECTED		40		Bombs: 1-2000#, 2-1600#, 2-1000#, or 4-500#	
	TOTAL - FIXED INTERNAL		40	384	WINGS: (external)	
	DROPPABLE - WINGS - 2@150 -			300	Bombs: 2-2000#, 2-1600#, 2-1000#, or 2-500#	
	DROPPABLE Bomb-bay - S. S. -			270	Torpedoes: 2MK13-3	
TOTAL		40	954	NOTE: Two wing bomb-racks are available for either bombs, torpedoes or 2-150 gal. dropp. tanks. Bombs cannot be carried internally with bomb-bay tank installed.		
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS					
	① BHP AT MAX. CRIT. ALT.					
	② STALL-WITHOUT POWER					
③ AT 1500' ALTITUDE						

NAVAER-1519B (Rev. 4-44)

## AIRPLANE CHARACTERISTICS &amp; PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5	6	7	8
LOADING CONDITION		BOMBER 2-1000#	BOMBER 2-1000# One Tank External	TORPEDO 2MK13-3	TORPEDO 1MK13-3 One B. B. Tank
GROSS WEIGHT	LBS.	19578	20711	21938	21730
EMPTY WEIGHT - Estimated -	LBS.	13519			
FUEL/OIL	GALS.	384/22	534/30	384/22	654/36
FIXED GUNS/AMMUNITION		6-.50 cal./2400 rds.			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	40.0	42.2	44.6	44.4
POWER LOADING ①	LBS./BHP	9.7	9.2	9.7	9.6
V-MAX. SEA LEVEL	MPH.	318	311	287	300
V-MAX. AIRPLANE CRIT. ALT.	MPH.	396/26300	385/26200	351/25800	369/26,600
V-STALL. GROSS WEIGHT ②	MPH.	86.9	89.9	93.0	92.5
V-STALL. WITHOUT FUEL ②	MPH.	81.6	82.7	88.0	83.8
TIME-TO-CLIMB -10000 FT.-	MIN.	5.4	5.9	6.7	6.5
TIME-TO-CLIMB -20000 FT.-	MIN.	11.6	12.9	14.8	14.3
SERVICE CEILING	FT.	33,000	31,100	30,700	31,000
TAKE-OFF DISTANCE -CALM-	FT.	830	971	1179	1122
TAKE-OFF DISTANCE -15 KN.-	FT.	553	656	809	769
TAKE-OFF DISTANCE -25KN.-	FT.	400	481	602	569
TAKE-OFF TIME	SECONDS.				
RATE OF CLIMB -SL-	FT./MIN.	1900	1720	1530	1570
MAX. RANGE /V-AV. ③	ST. MI./MPH.	1187/181	1575/178	955/173	1790/172
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.	215	395	175	520

PERFORMANCE IS BASED ON- CALCULATIONS

RANGE &amp; RADIUS ARE BASED ON ENGINE REQUIREMENT

FUEL CONSUMPTION DATA INCREASED

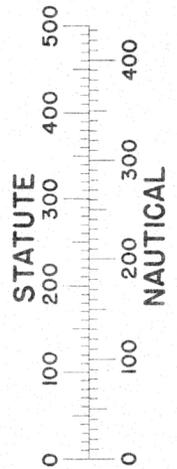
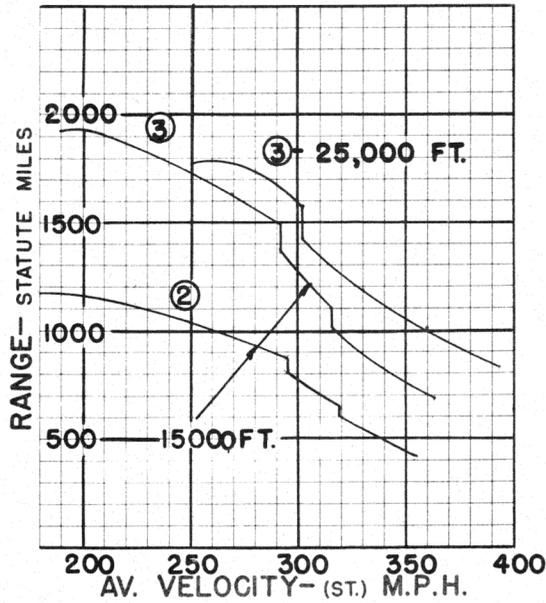
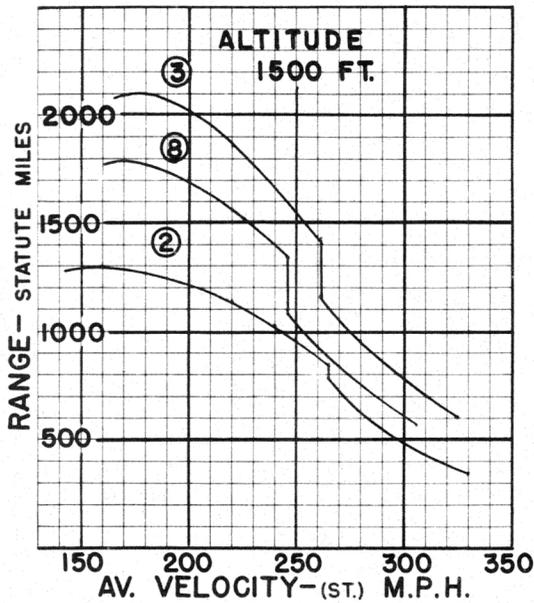
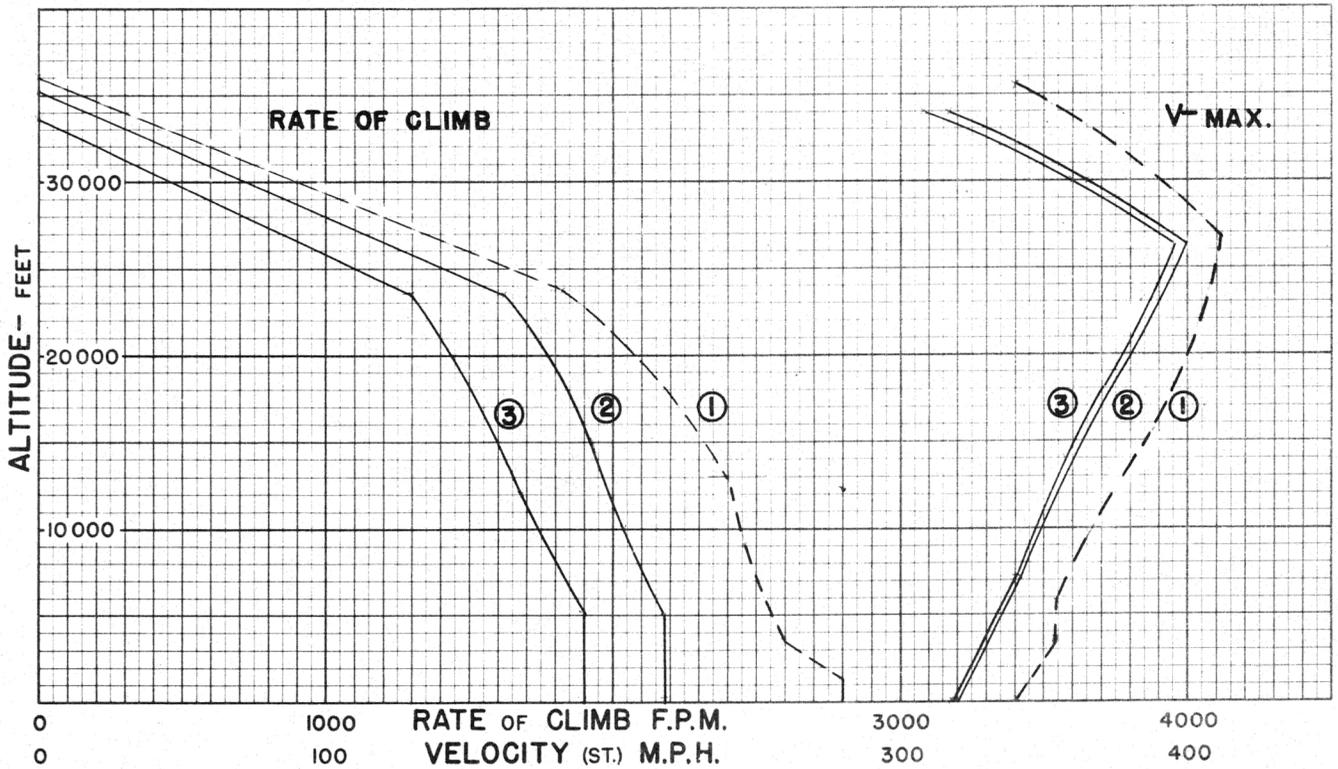
BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

FOR CONDITIONS ONE THRU FOUR:

PRACTICAL COMBAT RADIUS is based on 20 min. warm up and idle; 1 min. take off; 20 min. rendezvous at 60% normal sea level power (n.s.p.) and auto lean; climb to 15000 ft. at 60% n.s.p. and auto rich; cruise out at V for max. range and auto lean; drop bombs and unprotected droppable tanks; combat at 15000 ft. for 10 min. at full military power plus 10 min. at full normal power; descend; cruise back at 1500 ft. at 170 knots true air speed and auto lean; 60 min. at V for max. range and auto lean allowance for rendezvous, landing and reserve. Radius includes distance covered in climb but not in descent.

FOR CONDITIONS FIVE THRU EIGHT:

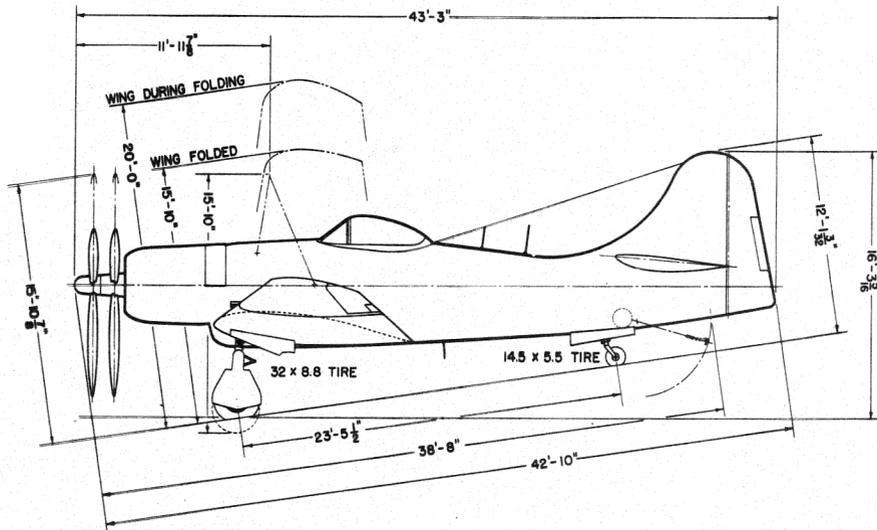
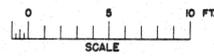
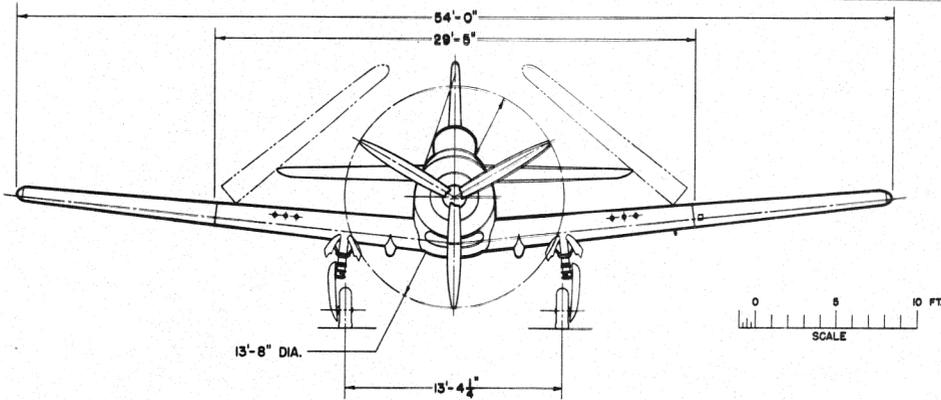
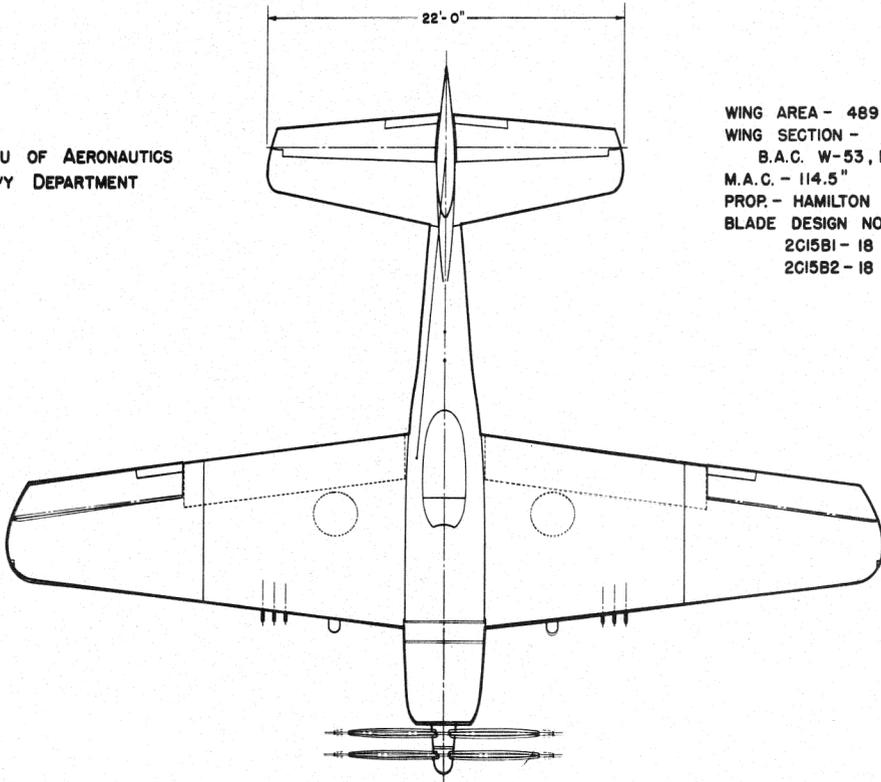
PRACTICAL COMBAT RADIUS is based on 20 min. warm up and idling; one min. take off; 20 min. rendezvous at 60% normal sea level power (n.s.p.) and auto lean; climb to 15000 ft. at 60% n.s.p. and auto rich; cruise out at 180 knots and auto lean; drop unprotected droppable tanks; dive; drop bombs and torpedoes; combat at 1500 ft. for 5 min. at full military power plus 10 min. at full normal power; cruise back at 1500 ft. at 170 knots true air speed and auto lean; 60 min. at V for max. range and auto lean allowed for rendezvous, landing and reserve. Radius includes distance covered in climb but not in descent.



○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

WING AREA - 489 SQ. FT.  
WING SECTION -  
B.A.C. W-53, 15 %  
M.A.C. - 114.5"  
PROP. - HAMILTON STD.  
BLADE DESIGN NO. -  
2C15B1 - 18 FW'D.  
2C15B2 - 18 AFT



MODEL XF8B-1

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

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

PROTECTION

- 1. PILOT FORWARD 12 LBS.
- 2. PILOT AFT 19 LBS.
- 3. SELF-SEALING CELLS 564 LBS.

