

**AIRPLANE CHARACTERISTICS & PERFORMANCE**

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT *	COMBAT *	FIGHTER	FERRY
GROSS WEIGHT	LBS.	12530	12530	14451	13451
EMPTY WEIGHT	-Calculated- LBS.	8141			8047
FUEL/OIL	GALS.	527/8	527/8	847/8	847/8
FIXED GUNS/AMMUNITION		4 - 20 mm/600 rds (Mk. 23 Gun Sight)			None
FLEXIBLE GUNS/AMMUNITION		None			None
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	43.3	43.3	50.0	46.6
POWER LOADING ①	LBS./BHP.				
V-MAX. SEA LEVEL.	KN	510	456	456	
V-MAX./ 20000 Ft.	KN	489	469	469	
V-STALL GROSS WEIGHT ②	KN	79.8	79.8	85.8	
V-STALL WITHOUT FUEL ②	KN	69.0	69.0	69.0	
TIME-TO-CLIMB -10000FT-	MIN.	1.3	2.3	2.7	
TIME-TO-CLIMB -20000FT-	MIN.	3.0	5.1	6.0	
SERVICE CEILING	FT.	50900	48000	44100	
TAKE-OFF DISTANCE -CALM-	FT.			1129	
TAKE-OFF DISTANCE -15 KN-	FT.			807	
TAKE-OFF DISTANCE -25 KN-	FT.			622	
TAKE-OFF RATE OF CLIMB *	FT./MIN.			1330	
WAVE-OFF RATE OF CLIMB *	FT./MIN.		1710		
RATE OF CLIMB -SL-	FT./MIN.	8730	4860	4150	
MAX. RANGE / V-AV. ③	NMI./KN			1185/291	1235/282
RANGE / V-AV. -60%NSP-③-	NMI./KN				
SEARCH RADIUS / V-AV. -20%R-	NMI./KN				
A.S.W. RADIUS / V-AV. -20%R-	NMI./KN				
INTERCEPTOR RADIUS I - 3	N MI.			350	
COMBAT RADIUS P - 3	N MI.			275	

ENGINE		2 WESTINGHOUSE 24C-4 JET UNITS		
ENGINE RATING	MILITARY	NORMAL	TAKE-OFF	
	3000/12000/S.L.	2430/11000/S.L.	3000/12000/S.L.	
	Lbs. static thrust/rpm/S.L.			

TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT
AUX. FIXED	PROTECTED		847	None
	UNPROTECTED	8		
	TOTAL - FIXED INTERNAL	8	847	
	DROPPABLE			Note: Performance is based on calculations. Range and radius are based on Engine Spec. fuel consumption data increased 7.5% to conform with past experience.
	DROPPABLE			
TOTAL	8	847		
NOTE	① BHP AT MAX. CRIT. ALT.			
	② STALL-WITHOUT POWER (IDLING JET)			
	③ AT 20000' ALTITUDE			

Reissued 1 January 1947

DATE 1 June 1946

**MODEL XF2D-1**

## AIRPLANE CHARACTERISTICS &amp; PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

\*These conditions are representative of the airplane of condition 3 at the combat radius with cruise-out fuel consumed in accordance with formula F-3.

FIGHTER COMBAT RADIUS FORMULA NO. F-3-CONDITIONS NOS. -3				RADIUS=CLIMB+CRUISE-OUT+CRUISE BACK			
WARM-UP	RENDEZVOUS	CLIMB	CRUISE OUT	DROP TANKS	COMBAT	CRUISE BACK	RESERVE
30 sec. at Max Stat. Thrust	Climb to 5000 ft. Mil. Thrust	to 20000 ft. Mil. Thrust	at 20000 ft. at Vel. for Max. Range	and BOMBS and DESCEND to 15000 ft. FIRE ROCKETS	15 min. -V max. at 15000 ft. Mil. Thrust RETURN to 20000 ft. Mil. Thrust	at 20000 ft. at Vel. for Max. Range	15 min. at 10000 ft. 15 min. at S.L. Vel. for max. End
TAKE-OFF 1 min at T.O. Thrust	10 min. REND. Vel. for Max. Range						

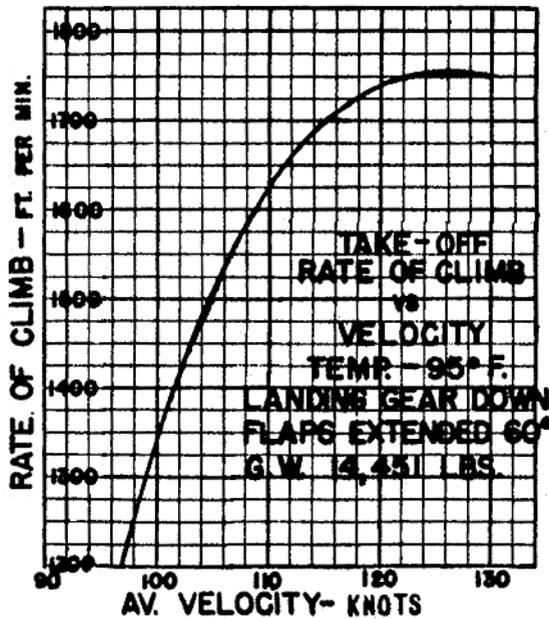
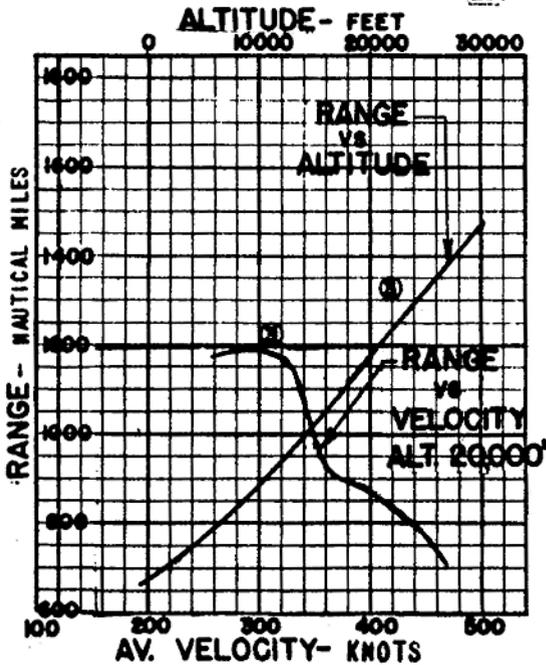
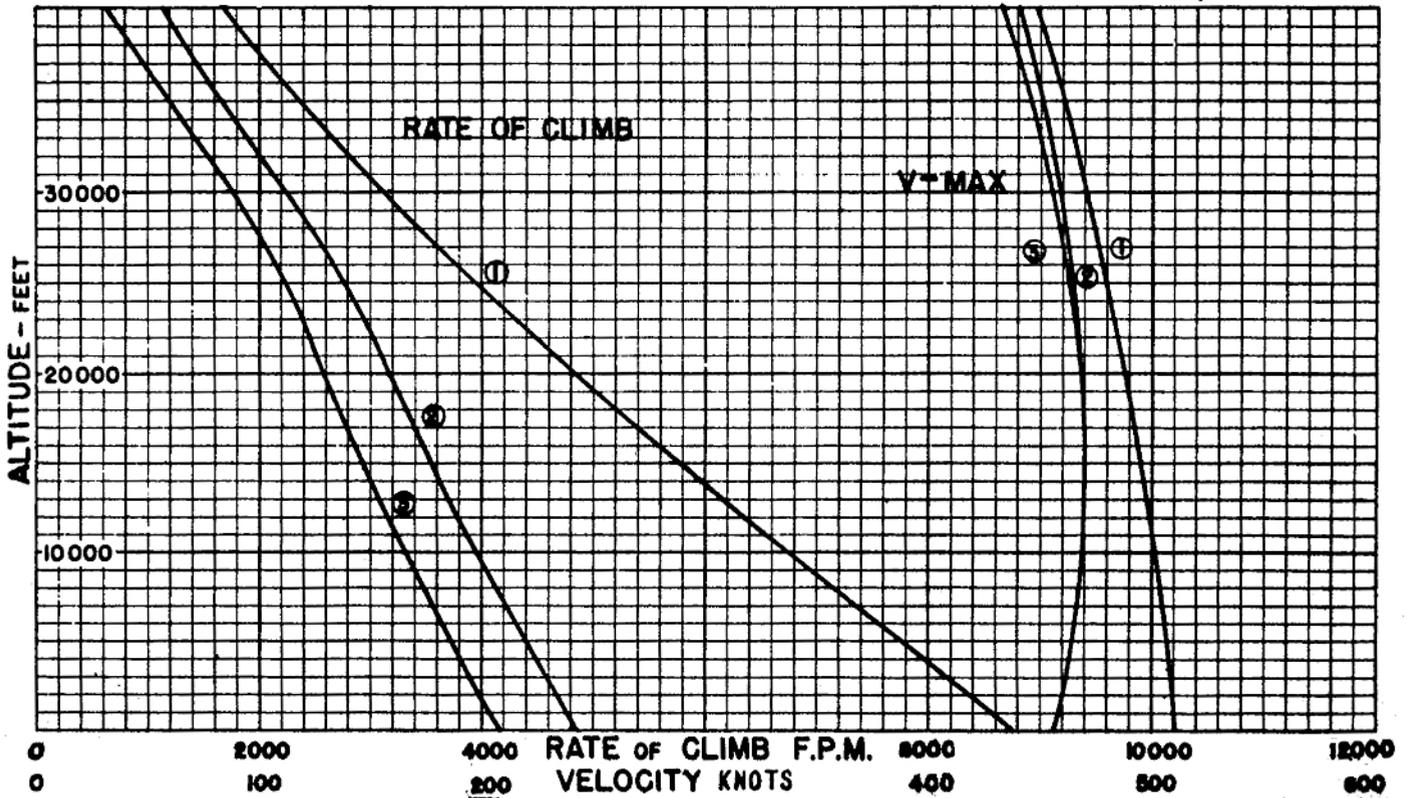
INTERCEPTOR RADIUS PROBLEM NO. I-3 CONDITIONS NOS. 3				RADIUS=CLIMB + CRUISE-OUT = CRUISE-BACK		
WARM-UP	CLIMB	CRUISE-OUT	DROP TANKS	COMBAT	CRUISE-BACK	RESERVE
30 sec. at Rated Take-off Thrust	to 20000 ft.	at 20000 ft.		at 20000 ft.	at 20000 ft.	10 min. at 10000 ft.
TAKE-OFF 1 min. at Rated Take-off Thrust	at Mil. Rated Thrust	at Norm. Rated Thrust		15 min. at Mil. Rated Thrust V-max	at Vel. for Max. Range	15 min. at S.L. Vel. for max. End.

\*Take-off Rate of Climb - R/C at 100 KN TAS with flaps and landing gear down.

\*Wave-off Rate of Climb - R/C at V-stall plus 8.7 KN TAS with flaps and landing gear down.

\*Note: Both values given at standard sea-level pressure at a temperature of 95° F.

Spotting - 192 ft. length is required to spot 25 airplanes on the 96 ft. wide deck immediately aft of the forward ramp on CV-9 class carriers.



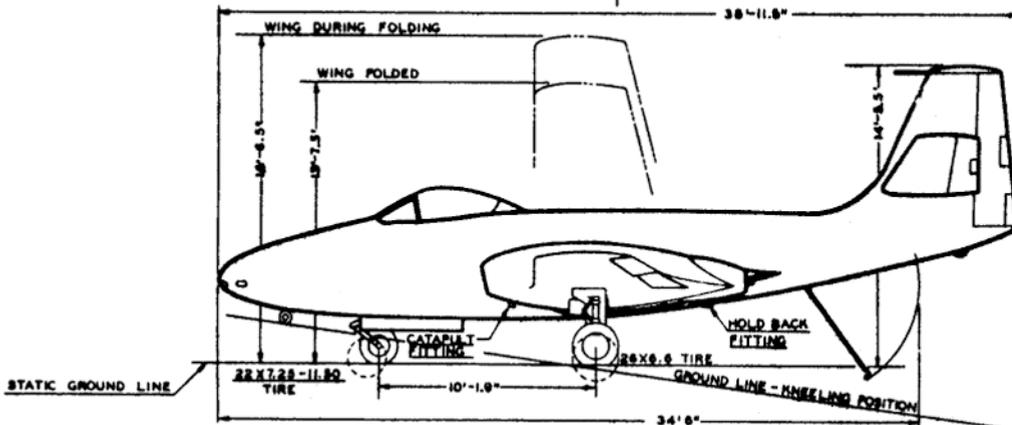
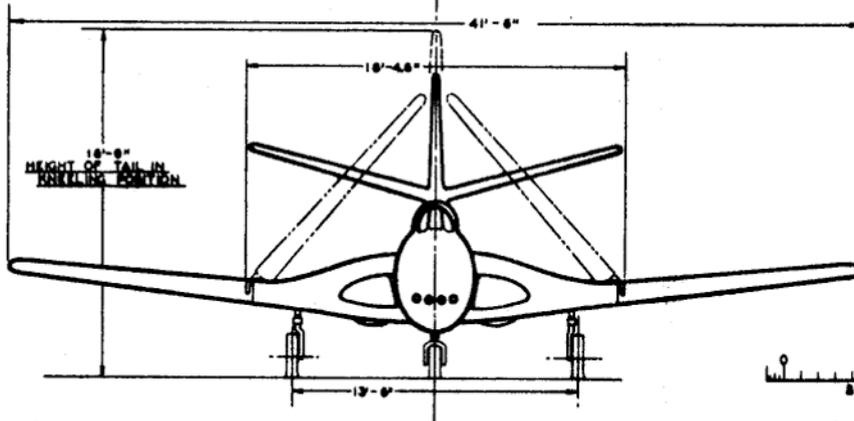
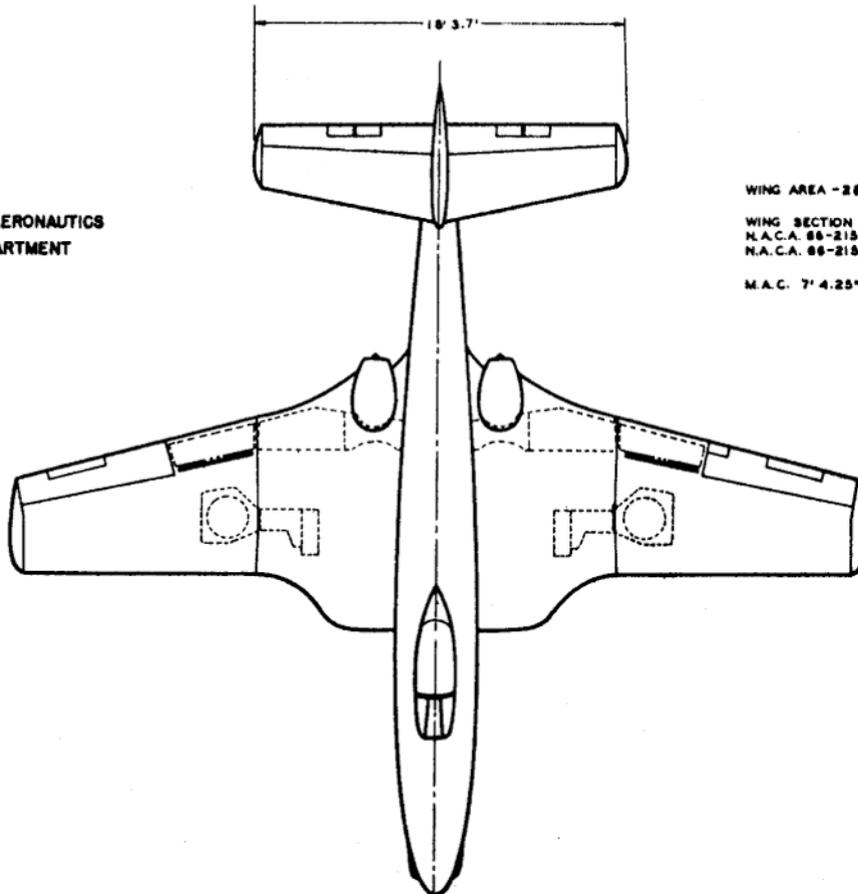
○ LOADING CONDITION COLUMN NUMBER

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

WING AREA - 289 SQ. FT.

WING SECTION  
N.A.C.A. 66-215-213-AT THEORETICAL ROOT  
N.A.C.A. 66-215-213-AT THEORETICAL TIP

M.A.C. 7' 4.25"



MODEL XF2D-1

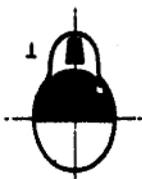
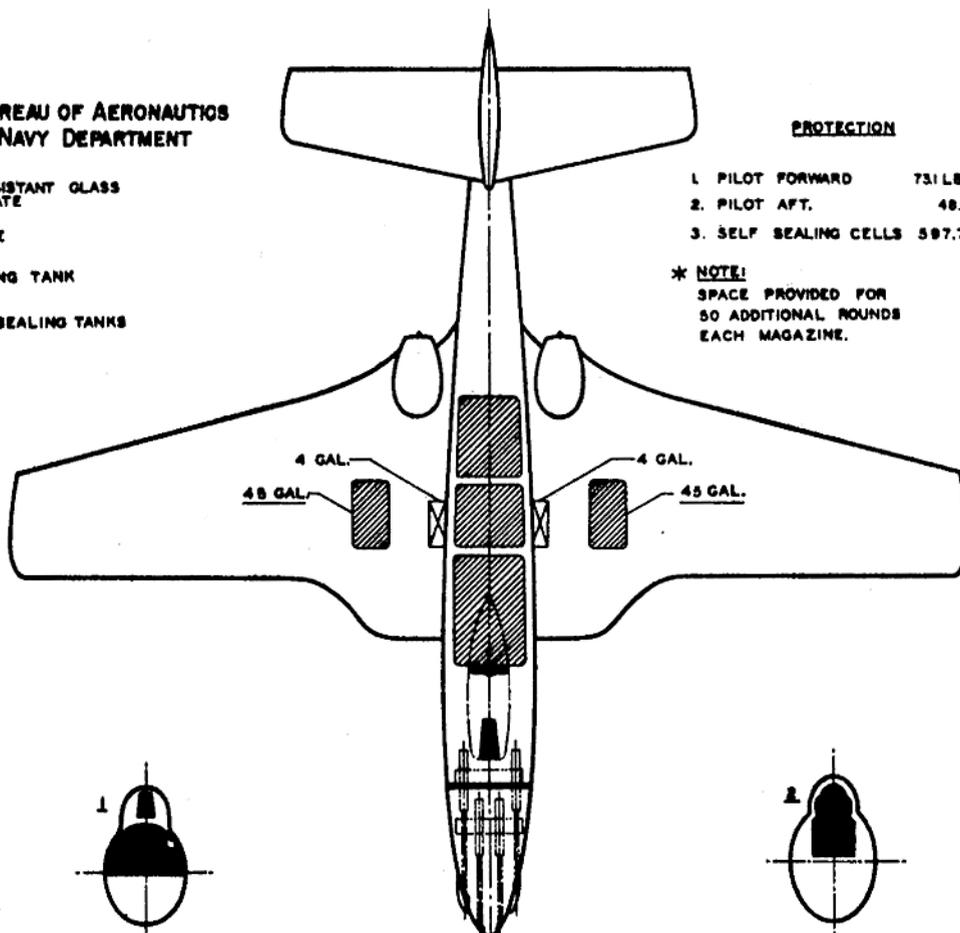
BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

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

**PROTECTION**

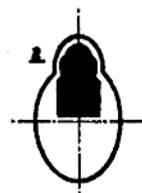
1. PILOT FORWARD 731 LBS
2. PILOT AFT. 480 LBS.
3. SELF SEALING CELLS 597.70 LBS.

\* **NOTE:**  
SPACE PROVIDED FOR  
50 ADDITIONAL ROUNDS  
EACH MAGAZINE.



VIEW AA

\* 4-20MM GUN - 600 RDS AMMUNITION



VIEW BB

