

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	
LOADING CONDITION		COMBAT **	COMBAT **	FIGHTER	
GROSS WEIGHT	LBS.	10841	10841	12442	
EMPTY WEIGHT	ESTIMATED LBS.	7107			
FUEL/OIL *	GALS.	358/1.25	358/1.25	597/1.25	
FIXED GUNS/AMMUNITION		4-20mm/800 Rds-MK6 Fire Control Sys(MK8 Gunsight Unit.)			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		MILITARY	NORMAL	NORMAL	
WING LOADING	LBS./SQ.FT.	43.3	43.3	49.7	
POWER LOADING ①	LBS./BHP.				
V-MAX. SEA LEVEL	KN.	516	485	485	
V-MAX. - 20000 ft.	KN./FT.	498	484	482	
V-STALL GROSS WEIGHT ②	KN.	84.6	84.6	90.6	
V-STALL WITHOUT FUEL ②	KN.	74.5	74.5	74.5	
TIME-TO-CLIMB -10000FT-	MIN.	1.4	2.1	2.5	
TIME-TO-CLIMB -20000FT-	MIN.	3.2	4.7	5.7	
SERVICE CEILING	FT.				
TAKE-OFF DISTANCE -CALM-	FT.			1022	
TAKE-OFF DISTANCE -15 KN-	FT.			726	
TAKE-OFF DISTANCE -25 KN-	FT.			555	
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	7700	5380	4490	
MAX. RANGE / V-AV. ③	N MI./KN.			955/305	
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.				
SCOUT RADIUS (Special Problem)	N MI.			300	
COMBAT RADIUS (F-3)	N MI.			175	
ENGINE / PROP GEAR RATIO Rolls Royce Nene Turbo-Jet Engine					
ENGINE RATING BHP/RPM/ALT.	MILITARY		NORMAL		
	5000# Static Thrust/12300 RPM/SL		4050# Static Thrust/11600 RPM/SL		
	WET TAKE-OFF RATING				
5750# Static Thrust/12300 RPM-(Not guaranteed)(Based on 15% increase of military rating)					
TANKAGE IN GALLONS		OIL	FUEL	ARMAMENT (None)	
AUX. FIXED	PROTECTED	1.25	597		
	UNPROTECTED				
	TOTAL - FIXED INTERNAL	1.25	597	Performance is based on calculations. Range and radius are based on engine specification fuel consumption data increased by 7.5% to conform with past experience.	
	DROPPABLE				
DROPPABLE					
TOTAL	1.25	597			
NOTE	① BHP AT MAX. CRIT. ALT.				
	② STALL - WITHOUT POWER				
	③ AT 20000' ALTITUDE				
*Kerosene was fuel used					

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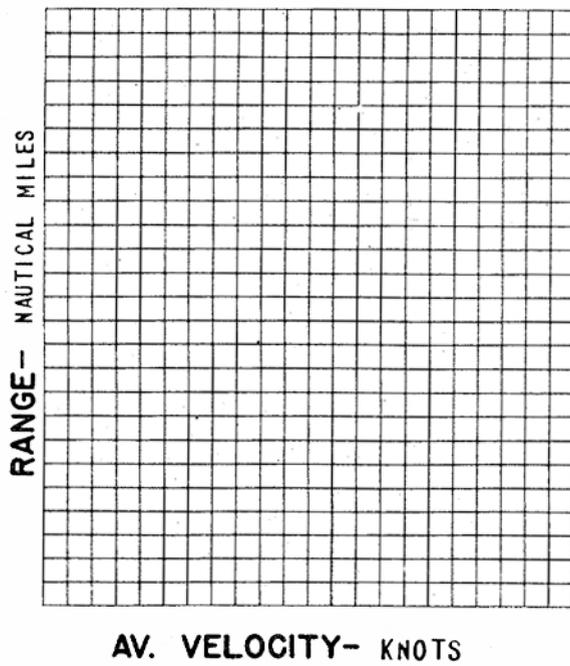
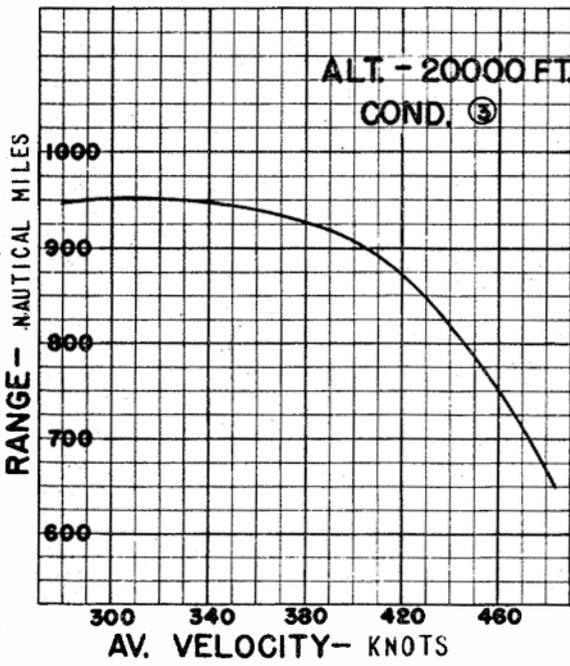
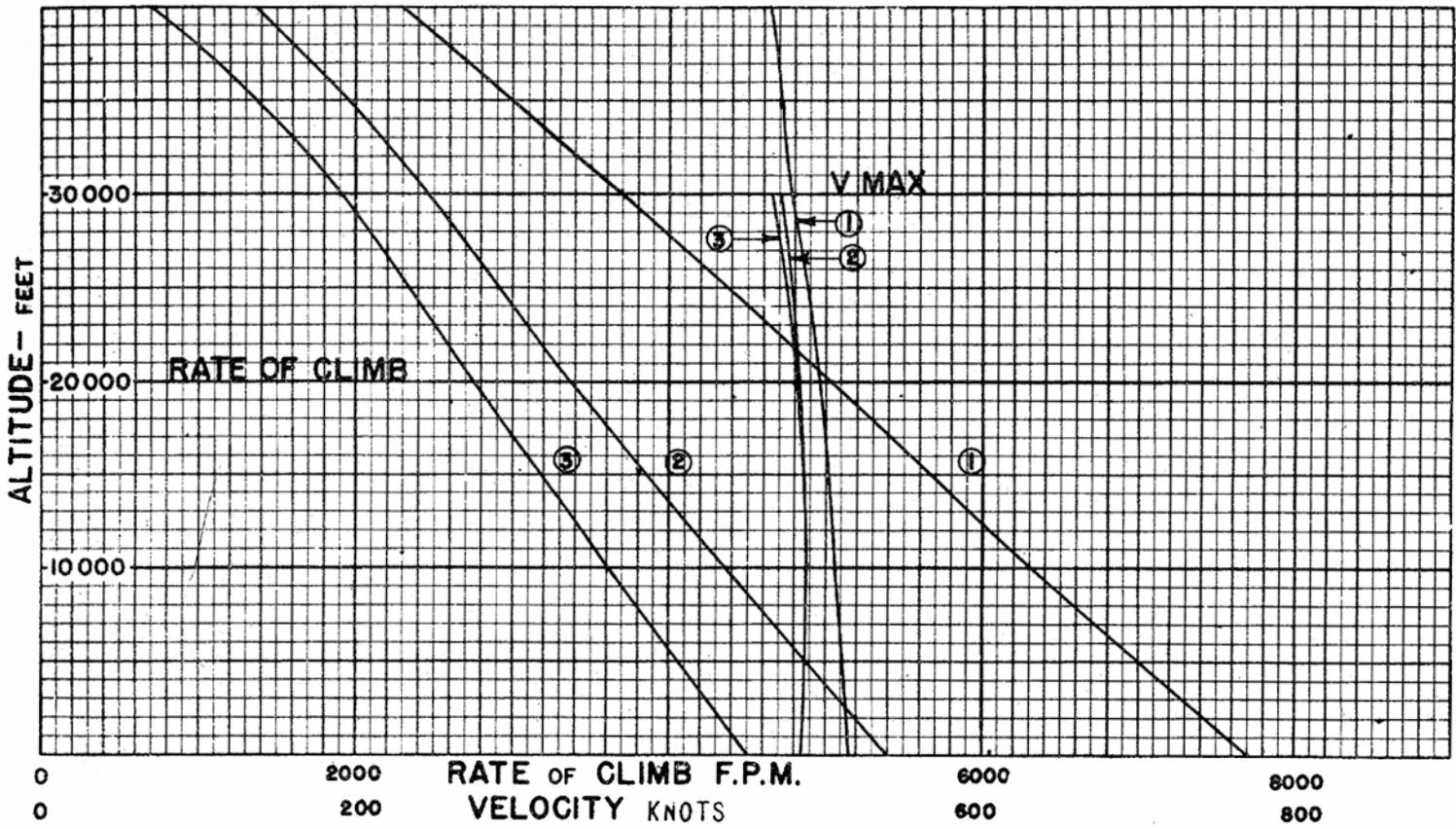
**Conditions (1) and (2) represent Condition (3) when 40% of the fuel has been burned.

FIGHTER COMBAT RADIUS FORMULA NO. F-3-CONDITION NO. (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.	to 20000 ft.	at 20000 ft.	and BOMBS and	15 min.-Vmax. at 15000 ft.	at 20000 ft.	15 min.at 10000 ft
<u>TAKE-OFF</u> 1 min.at T.O.Thrust	Mil.Thrust 10 min.REND. Vel. for Max. Range	Mil.Thrust	at Vel. for Max. Range	<u>DESCEND</u> to 15000 ft. FIRE ROCKETS	<u>RETURN</u> to 20000 ft. Mil.Thrust	at Vel. for Max. Range	15 min.at S.L. Vel. for max. End

Special Problem - Condition (3)

- (a) 30 sec. warm-up at max. static thrust.
- (b) 1 min. take-off at take-off thrust.
- (c) Climb to 30000' at max. thrust.
- (d) Cruise-out at 30000' at vel. for max. range.
- (e) 15 min. combat at 30000' at mil. thrust.
- (f) Cruise-back at 30000' at vel. for max. range.
- (g) Descend to 10000'.
- (h) 45 min. rendezvous at 10000' at vel. for max. endurance.

Spotting: - 200 ft. length is required to spot 42 airplanes on the 96 ft. wide deck immediately aft of the forward ramp on CV-9 class carriers.



○ LOADING CONDITION COLUMN NUMBER

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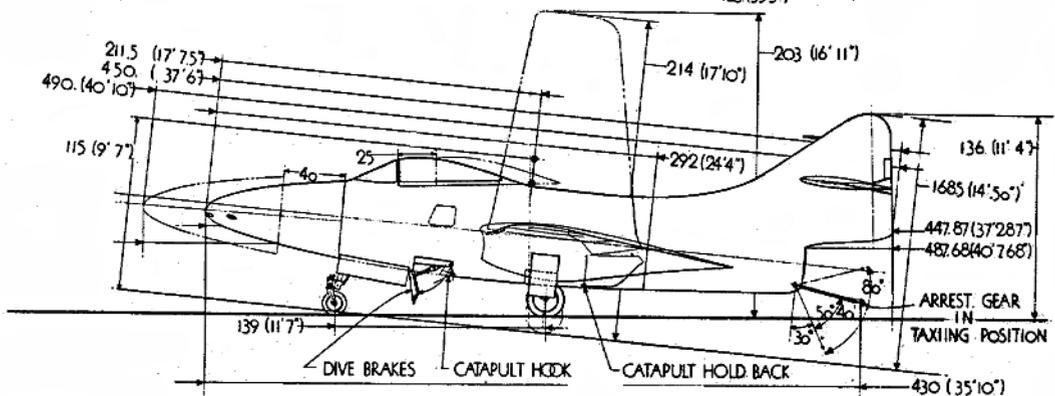
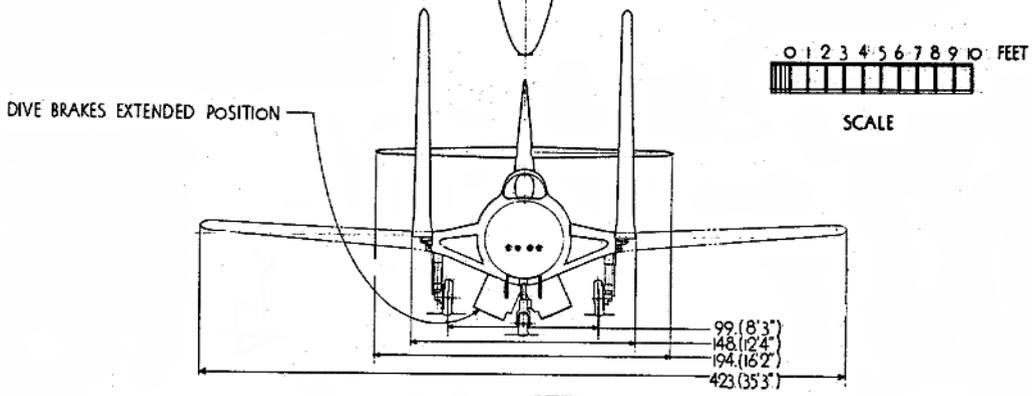
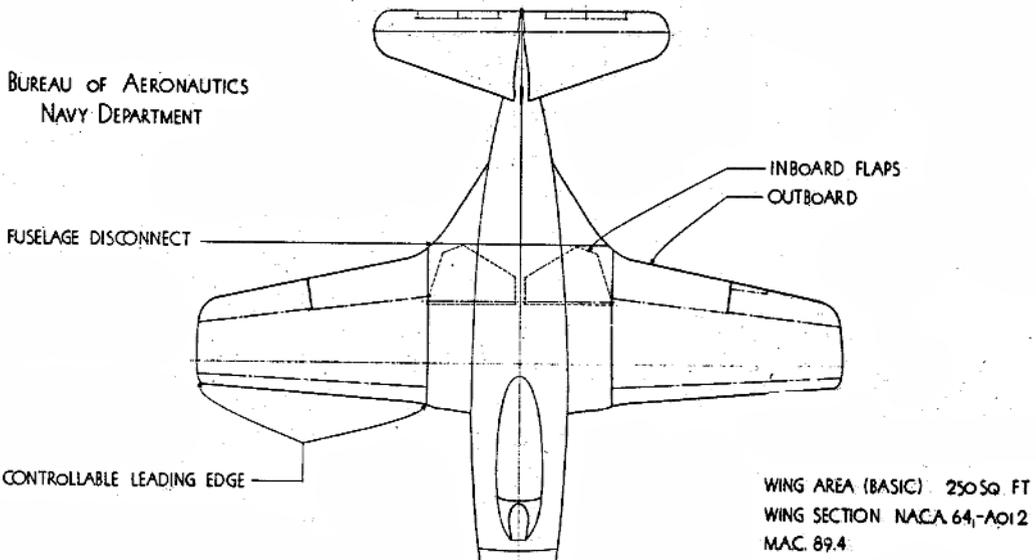
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Airplane Characteristics:

The XF9F-2 airplane is a single place, single turbo-jet engine propelled, carrier based, high performance fighter. It has tricycle landing gear and folding wings.

Span.....	35'-3"
Span(Folded).....	12'-3"
Length(Level).....	37'-8"
Height(3 Pt.).....	11'-3"
Height(Folded).....	16'-11"
Wing Area.....	250 sq. ft.
Mac.....	89.4"
Airfoil Section.....	64 ₁ -A012

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NAVY DEPARTMENT



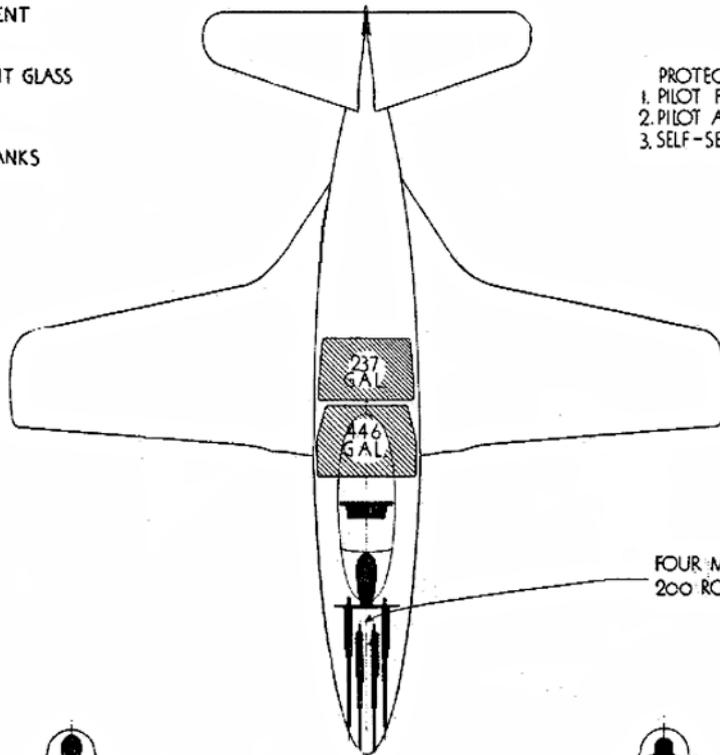
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1 APRIL 1947 ~~CONFIDENTIAL~~ DESCRIPTIVE ARRANGEMENT NAVAER
MODEL XF9F-2

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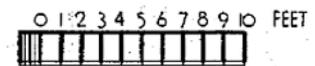
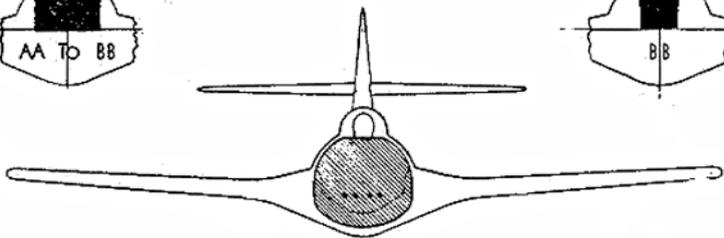
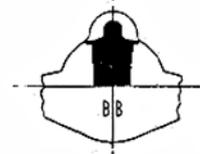
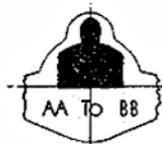
MODEL XF9F2

-  BULLET RESISTANT GLASS ARMOR PLATE
-  SELF-SEALING TANKS

- PROTECTION
- 1. PILOT FORWARD 72 LBS.
 - 2. PILOT AFT 68 LBS.
 - 3. SELF-SEALING CELLS 185 LBS.



FOUR M3 20 MM CANNON
200 ROUNDS AMMUNITION EACH



SCALE

