

ISSUE OF **AIRPLANE CHARACTERISTICS & PERFORMANCE**

BUREAU OF AERONAUTICS, N. DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT *	COMBAT *	COMBAT *	FIGHTER
					One 150 gal. Tank External
GROSS WEIGHT	LBS.	13190	13190	13190	14250
EMPTY WEIGHT - ACTUAL -	LBS.	9421			
FUEL / OIL	GALS.	250/16	250/16	250/16	400/19
FIXED GUNS/AMMUNITION		4-.50/1600- / 2-20mm/450			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		COMBAT	MILITARY	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	39.5	39.5	39.5	42.7
POWER LOADING ①	LBS./BHP.	6.7	8.0	8.5	9.2
V-MAX. SEA LEVEL	MPH.	309	305	291	277
V-MAX./ CRITICAL ALT.	MPH./FT.	365/17800	366/23200	362/24000	343/23800
V-STALL GROSS WEIGHT ②	MPH.	89.2	89.2	89.2	92.8
V-STALL WITHOUT FUEL ②	MPH.	84.0	84.0	84.0	84.6
TIME-TO-CLIMB -10000FT-	MIN.	3.7	4.1	4.8	5.5
TIME-TO-CLIMB -20000FT-	MIN.	8.1	8.9	10.2	11.8
SERVICE CEILING	FT.	36700	36700	36000	34500
TAKE-OFF DISTANCE -CALM-	FT.	710	710	710	867
TAKE-OFF DISTANCE -15 KN-	FT.	469	469	469	582
TAKE-OFF DISTANCE -25 KN-	FT.	334	334	334	422
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	2840	2730	2170	1900
MAX. RANGE / V-AV. ③	ST. MI. / MPH.			880/166	1260/163
RANGE / V-AV. -60%NSP-③	ST. MI. / MPH.				
SEARCH RADIUS / V-AV. -20%R-	NMI./KN.				
A.S.W. RADIUS / V-AV. -20%R-	NMI./KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS (P-1)	N MI.			110	320

ENGINE / PROP GEAR RATIO		P & W R-2800-10W (2:1)			
ENGINE RATING BHP/RPM/ALT.	COMBAT	MILITARY	NORMAL	TAKE-OFF	
	2250/2700/S. L.	2000/2700/S. L.-1700	1675/2550/S. L.-5500		
	2075/2700/1800	1755/2700/5400	1570/2550/7200		
	2135/2700/12400	1800/2700/15700	1625/2550/16750	2000/2700/S. L.	
	1965/2700/14600	1640/2700/181000	1530/2550/18200		
	1975/2700/16900	1650/2700/21000	1550/2550/22000		

(SEE PAGE 3)

TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT
AUX. FIXED	PROTECTED	19	250	FUSELAGE -external - alternate with droppable tank
	UNPROTECTED			Bombs: 1-2000#, 1-1600#, 1-1000#, or 1-500#
	TOTAL - FIXED INTERNAL	19	250	Torpedoes: 1-MK13-3
	DROPPABLE FUSELAGE (ext)		150	Rockets: 1-11.75" A.R.
	DROPPABLE WINGS (ext) 2@100 (alternate-2@150)		200 (300)	WINGS - external - alternate with droppable tanks
TOTAL	19	600	Bombs - 2-1000#, 2-500#, 2-250#, or 6-100#	
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS			Rockets: 2-11.75" A.R.
	① BHP AT MAX. CRIT. ALT.			WINGS - on MK9 rocket launchers
	② STALL - WITHOUT FUEL			Rockets - 6-5" HYAR, or 6-5" AR
③ AT 1500' ALTITUDE				

SUPERSEDES 1 NOVEMBER 1944

DATE 1 NOVEMBER 1945

PAGE 1

MODEL F6F-5N

NAVY-18198 (Rev. 9-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER				
LOADING CONDITION				
GROSS WEIGHT	LBS.			
EMPTY WEIGHT	LBS.			
FUEL/OIL	GALS.			
FIXED GUNS/AMMUNITION				
FLEXIBLE GUNS/AMMUNITION				
ENGINE POWER USED FOR PERFORMANCE				
WING LOADING	LBS./SQ.FT.			
POWER LOADING ①	LBS./BHP			
V-MAX. SEA LEVEL	MPH.			
V-MAX/ CRITICAL ALT.	MPH./ FT.			
V-STALL. GROSS WEIGHT ②	MPH.			
V-STALL. WITHOUT FUEL ②	MPH.			
TIME-TO-CLIMB -10000FT.-	MIN.			
TIME-TO-CLIMB -20000FT.-	MIN.			
SERVICE CEILING	FT.			
TAKE-OFF DISTANCE -CALM-	FT.			
TAKE-OFF DISTANCE -15 KN.-	FT.			
TAKE-OFF DISTANCE -25KN-	FT.			
TAKE-OFF DISTANCE -50 FT. OBST.	FT.			
TAKE-OFF DISTANCE	SECONDS			
RATE OF CLIMB -SL-	FT./ MIN.			
MAX. RANGE / V-AV. ③	ST. MI. / MPH.			
RANGE / V-AV. -60%NSP-③-	ST. MI. / MPH.			
SEARCH RADIUS / V-AV. -20%R-	NMI. / KN.			
A. S. W. RADIUS / V-AV. -20%R-	NMI. / KN.			
SCOUT RADIUS	NMI.			
COMBAT RADIUS	NMI.			

PERFORMANCE IS BASED ON- F6F-3 & F6F-5 FLIGHT TESTS

RANGE & RADIUS ARE BASED ON F6F-5 FLIGHT TEST

FUEL CONSUMPTION DATA INCREASED

BY 5 PERCENT TO CONFORM WITH PAST EXPERIENCE.

* COMBAT CONDITION: Fuselage bomb shackles & "T" bracing, faired wing bomb-racks and sway bracing and AN/APS-6 radar nacelle aboard. Rocket launchers not aboard. Addition of 6 MK9-1 rocket launchers reduces Vmax/S.L. by 4 mph at Combat Power.

NOTE: MK8 fuselage shackles & T-bracing, faired MK51-7 wing bomb-racks and sway-bracing, AN/APS-6 radar nacelle, flame dampers, and flash eliminators in all conditions.
Water available for approximately 15 min. at Combat Power.
Provisions are incorporated for fuel transfer from droppable to main tanks after take-off.

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

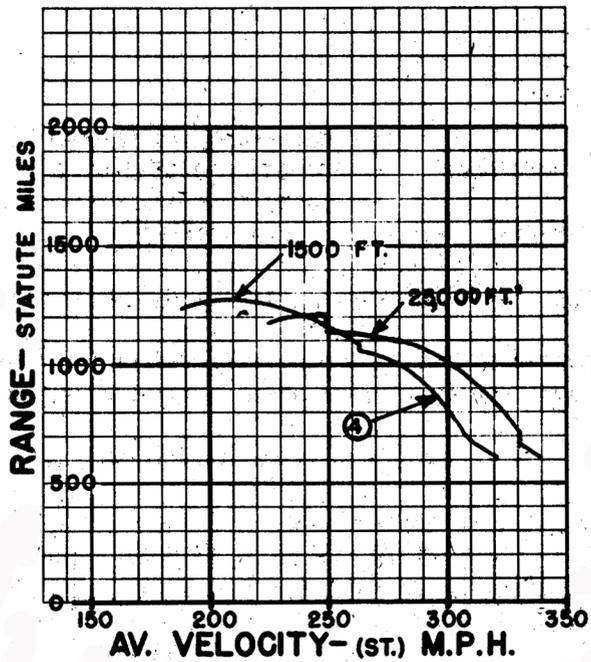
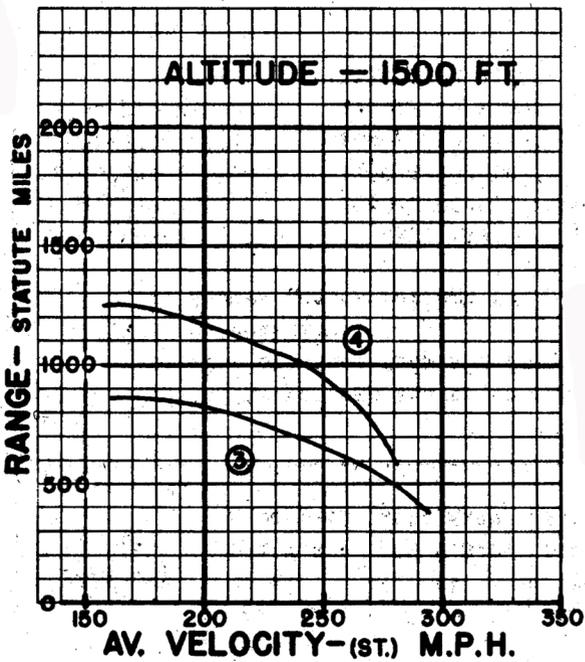
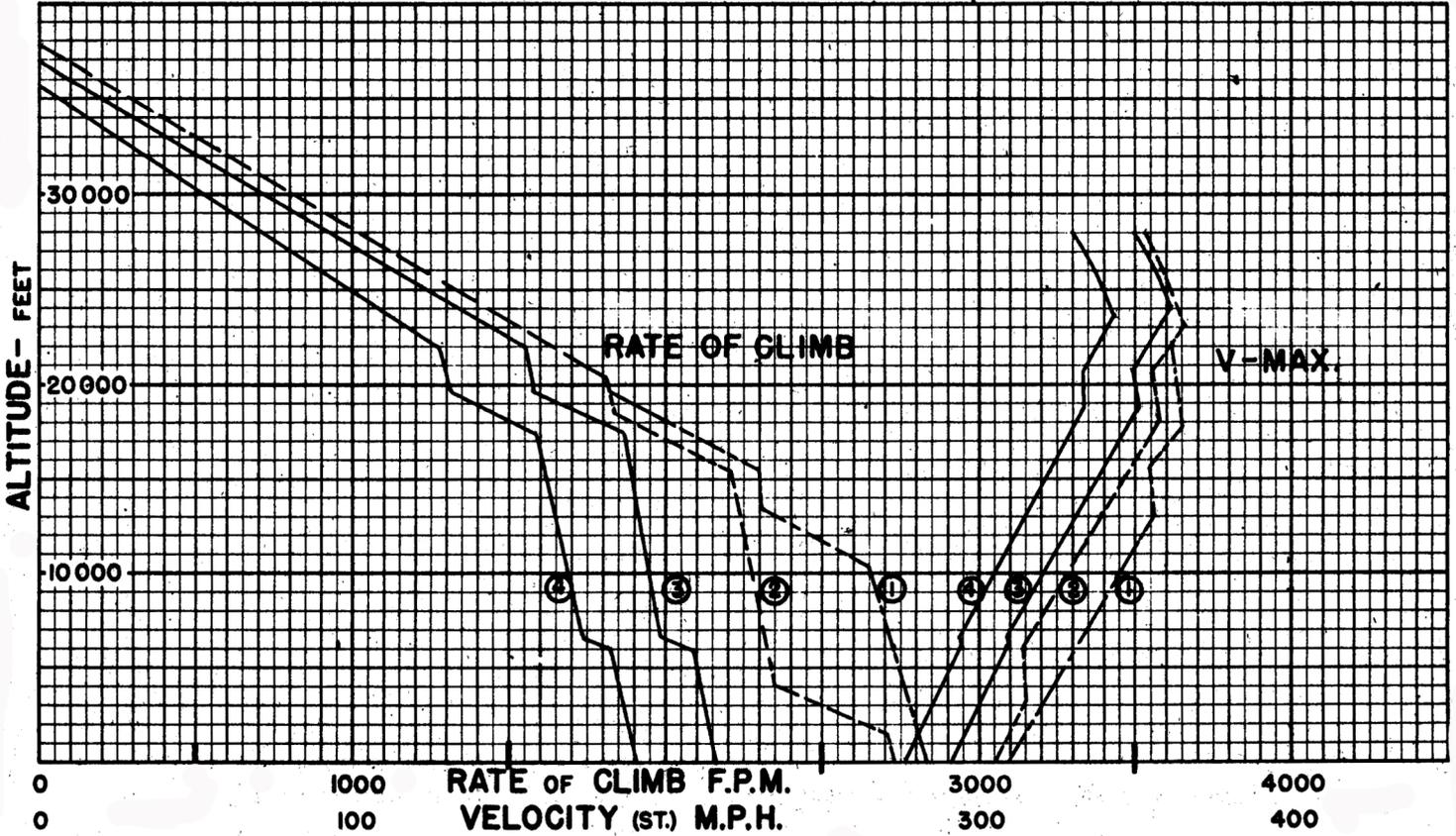
FIGHTER COMBAT RADIUS FORMULA NO. F-1-CONDITIONS NOS. -				364	RADIUS = CLIMB + CRUISE-OUT + CRUISE BACK		
<u>WARM-UP</u>	<u>RENDEZVOUS</u>	<u>CLIMB</u>	<u>CRUISE OUT</u>	<u>DROP TANKS</u> and <u>BOMBS</u>	<u>COMBAT</u>	<u>CRUISE BACK</u>	<u>RESERVE</u>
20 min.	20 min. at sea level	to 15000 ft.	at 15000 ft.		20 min. at 15000 ft.	at 1500 ft.	60 min. at
<u>TAKE-OFF</u>	at	at	Vel. for	<u>FIRE</u>	10 min. <u>WEP.</u>	170 kts. <u>TAS</u>	Vel. for
1 min.	60% N.S.P. Auto Lean.	60% N.S.P. Auto Rich.	Max. Range Auto Lean.	<u>ROCKETS</u>	10 min. <u>Mil. Fr.</u> and descend	Auto Lean.	Max. Range Auto Lean.

NOTE: (1) Engine ratings listed on page 1 are AEL ratings. These ratings do not conform to engine data obtained from F6F flight test. The flight test data are used in performance calculations.

(2) Rammed engine ratings for performance from flight test clean condition.

<u>COMBAT</u>	<u>MILITARY</u>	<u>NORMAL</u>	<u>TAKE-OFF</u>
2030/2700/S.L.	1960/2700/S.L.-3400	1710/2550/S.L.-6200	
2110/2700/13100	1790/2700/6100	1690/2550/6500-19000	2000/2700
1930/2700/15700	1840/2700/18200	1580/2550/23800-24100	
1940/2700/18000	1660/2700/21000		
	1670/2700/23400		

SPOTTING: 200 foot length is required to spot 30 airplanes on the 96 ft. wide deck immediately aft of the forward ramp on CV-9 class carriers.



○ LOADING CONDITION COLUMN NUMBER

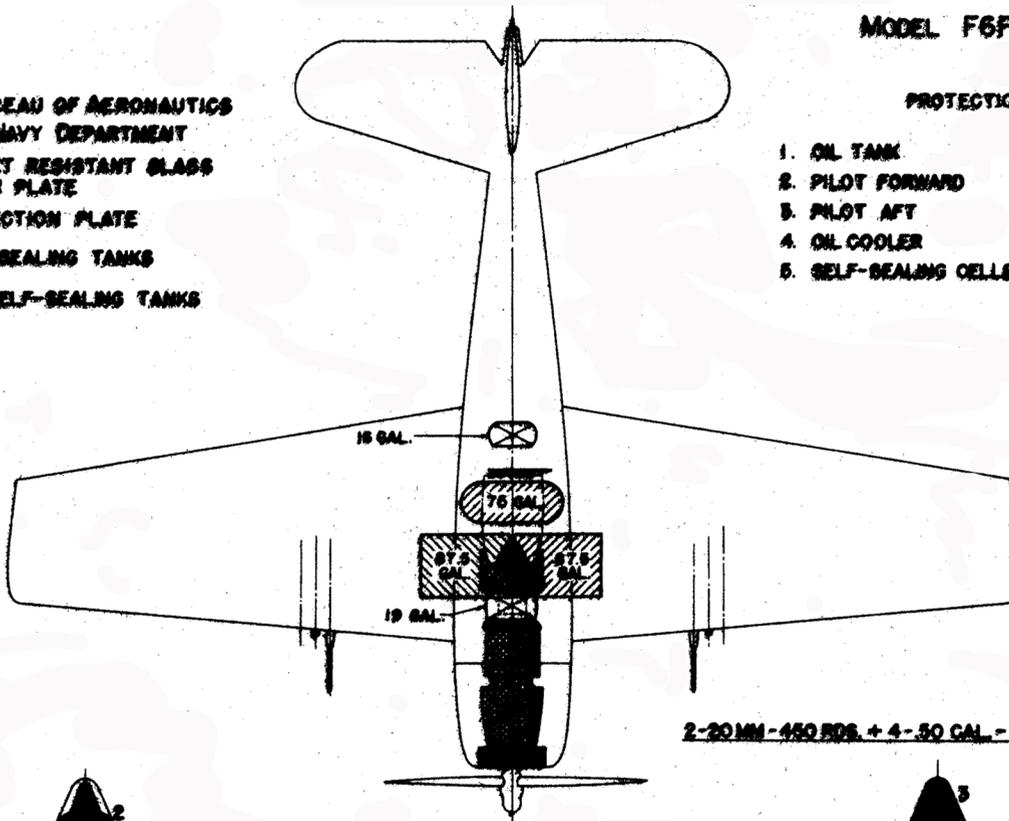
MODEL F6F-5-5N

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

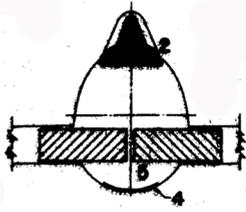
-  BULLET RESISTANT GLASS ARMOR PLATE
-  DEFLECTION PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS

PROTECTION

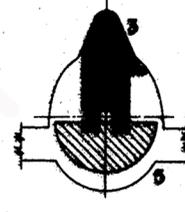
- | | |
|-----------------------|----------|
| 1. OIL TANK | 19 LBS. |
| 2. PILOT FORWARD | 808 LBS. |
| 3. PILOT AFT | 150 LBS. |
| 4. OIL COOLER | 23 LBS. |
| 5. SELF-SEALING CELLS | 186 LBS. |



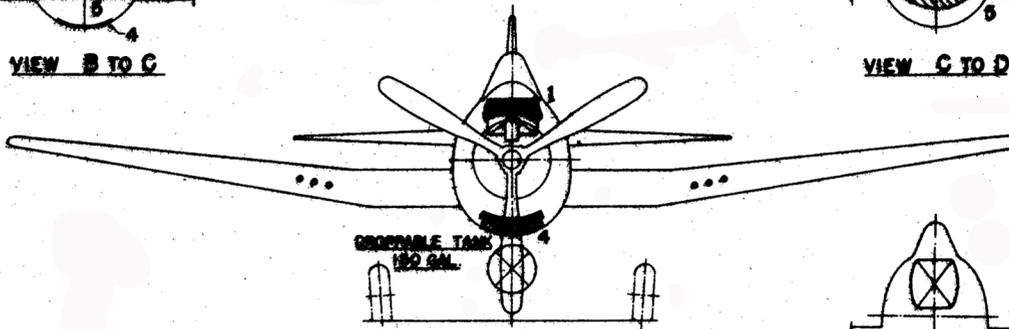
2-20 MM - 450 RDS. + 4- .50 CAL. - 1600 RDS.



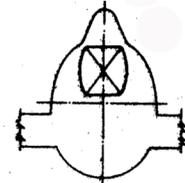
VIEW B TO C



VIEW C TO D



VIEW A TO B



VIEW D

