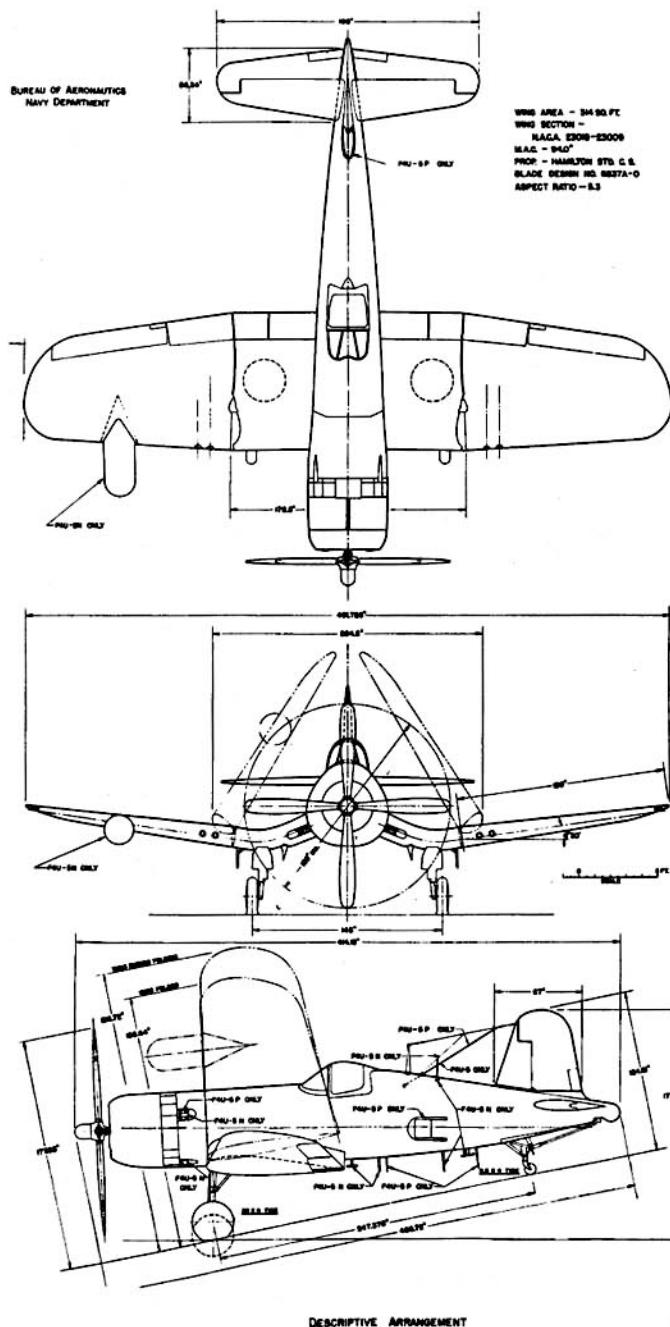
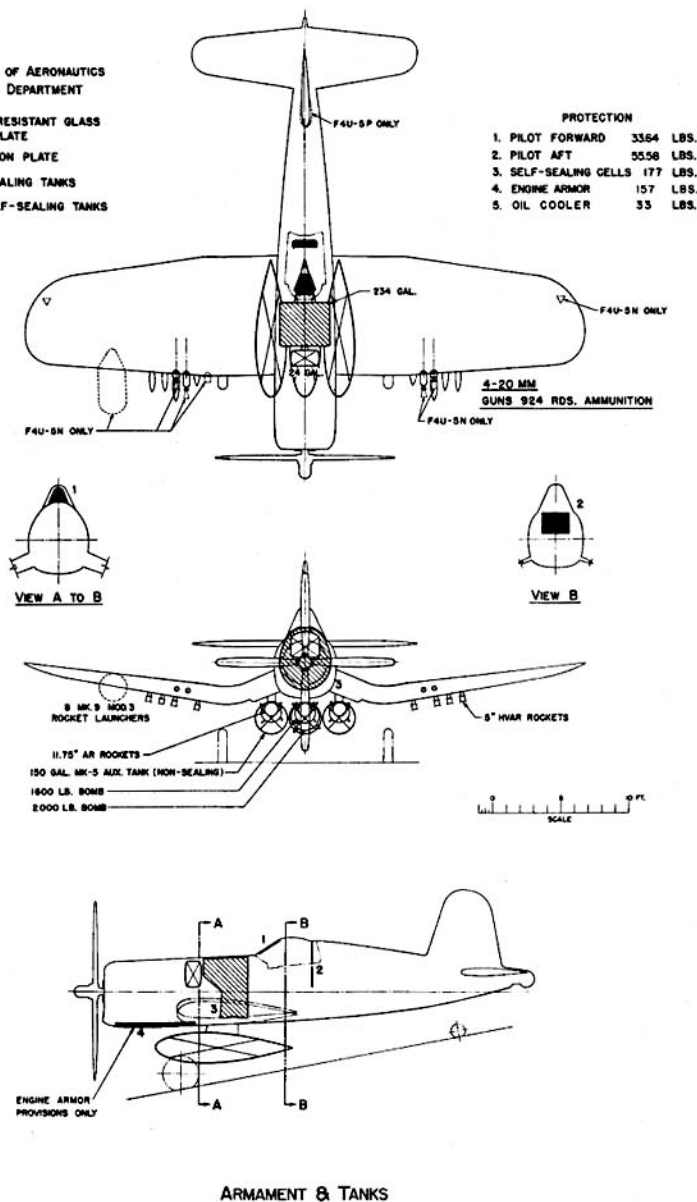




STANDARD AIRCRAFT CHARACTERISTICS
F4U-5 "CORSAIR"
CHANCE VOUGHT

BUREAU OF AERONAUTICS
NAVY DEPARTMENTBUREAU OF AERONAUTICS
NAVY DEPARTMENT

- BULLET RESISTANT GLASS ARMOR PLATE
- ▨ DEFLECTION PLATE
- ▤ SELF-SEALING TANKS
- ⊠ NON SELF-SEALING TANKS



POWER PLANT

NO. & MODEL....(1) R-2800-32W
 MFR.....Pratt and Whitney
 SUPERCH....2 Stage, Var.Speed
 PROP. GEAR RATIO.....0.450
 PROP. MFR.....Hamilton Stan.
 PROP. DES. NO.....6837A-0
 NO. BL./DIA.....4/13'-2"

RATINGS

	Bhp	@ Rpm	@ Alt.
T. O.	2,300	2,800	S. L.
COMB.	2,675	2,800	S. L.
	2,120	2,800	30,000'
MIL.	2,300	2,800	S. L.
	1,800	2,800	30,000'
NORM.	1,900	2,600	S. L.
	1,500	2,600	30,000'
SPEC. NO. N-3119			

ORDNANCE**GUNS**

No.	Size	Location	Rds.
4	20mm M-3	Wings	924
Mk. 6-0 Fire Control System			

BOMBS AND ROCKETS

Type	Size	Location	No.
HVAR	5"	Wing	8
A.R.	11.75"	Wing	2
Bomb	500#	Wing	2
Bomb	1,000#	Wing	2
Bomb	1,600#	Wing	2
A.R.	11.75"	Fuselage	1
Bomb	500#	Fuselage	1
Bomb	1,000#	Fuselage	1
Bomb	1,600#	Fuselage	1
Bomb	2,000#	Fuselage	1

MAX. BOMB CAP.....5,200 lbs.
 (Field Operation)

MISSION AND DESCRIPTION

The F4U-5 is a high-performance, propeller driven, single-seat, carrier-based or land-based general purpose fighter. It is a development of the F4U "Corsair" series and differs from its predecessors by more powerful engine, increased armament and improved cockpit.

It is equipped for operation as a long range fighter when carrying external auxiliary fuel tanks or as a fighter-bomber when carrying bombs on the external pylons.

The airplane is of conventional stressed-skin construction with slotted flaps, Frise ailerons, and horn-balanced elevator and rudder.

DIMENSIONS

WING AREA.....	314 sq. ft.
SPAN.....	41' - 0"
LENGTH.....	34' - 0"
HEIGHT.....	14' - 9"
TREAD.....	12' - 1"
M.A.C.....	7' - 10"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	9,683.....	
BASIC.....	10,620.....	
DESIGN.....	12,000.....	7.0
COMBAT.....	13,419.....	6.3
MAX.T.O..(Field).	18,300.....	4.6
	(Cat.)18,300.....	
MAX.LAND.(Field).	15,000.....	
	(Arrest)14,000.....	
All weights are actual. Limited by flight characteristics		

FUEL AND OIL

Gals.	No. Tanks	Location
234	1	Fuse, Seal
300	2	Wing, Drop
FUEL GRADE....115/145		
FUEL SPEC..MIL-F-5572		

OIL

CAPACITY (Gals.).....	25.5
GRADE.....	1100
SPEC.....	MIL-O-6082

ELECTRONICS

VHF.....	AN/ARC-1
UHF COMM.....	AN/ARC-27
(P.S.I., Repl. for AN/ARC-1)	
RANGE REC.....	R-23/ARC-5
HOMING.....	AN/ARR-2A
VISUAL HOMING.....	AN/ARN-21
(P.S.I., Repl. for ARR-2A and R-23/ARC-5)	
ALTITUDE.....	AN/APN-1
(Service Installation)	
IFF.....	AN/APX-1
IFF.....	AN/APX-6
(Service Installation)	

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) FIGHTER 1-150 Gal. Tank External	(4) ROCKET 8-5" HVAR 1-150 Gal. Tank External		
TAKE-OFF WEIGHT	lb.	14,453	15,578		
Fuel (Fixed/Drop)	lb.	1,404/900	1,404/900		
Payload	lb.	519	1,639		
Wing loading	lb./sq.ft.	46.1	49.6		
Stall speed - power-off	kn.	87.3	91.0		
Take-off run at S.L. - calm	ft.	890	1,100		
Take-off run at S.L. 25 kn. wind	ft.	450	600		
Take-off to clear 50 ft. - calm	ft.	--	--		
Max. speed/altitude (1)	kn./ft.	336/30,000	315/30,000		
Rate of climb at S.L. (1)	fpm	2,610	2,240		
Time: S.L. to 10,000 ft. (1)	min.	4.0	4.7		
Time: S.L. to 20,000 ft. (1)	min.	8.3	10.3		
Service ceiling (100 fpm) (1)	ft.	37,900	33,800		
Combat range	n.mi.	790	620		
Average cruising speed	kn.	198	186		
Cruising altitude(s)	ft.	15,000	15,000		
Combat radius	n.mi.	215	180		
Average cruising speed	kn.	202	202		
COMBAT LOADING CONDITION		(2) 3-Pylons 8-Launchers	(3) 3-Pylons 8-Launchers		
COMBAT WEIGHT	lb.	13,419	13,419		
Engine power		Combat	Military		
Fuel	lb.	1,404	1,404		
Combat speed/altitude	kn./ft.	365/15,000	344/15,000		
Rate of climb/altitude	fpm/ft.	4,000/15,000	3,290/15,000		
Combat ceiling (500 fpm)	ft.	44,000	39,200		
Rate of climb at S.L.	fpm	4,520	3,700		
Max. speed at S.L.	kn.	320	302		
Max. speed/altitude	kn./ft.	397/31,000	373/31,000		
LANDING WEIGHT		12,255			
Fuel	lb.	240			
Stall speed - power-off	kn.	79.8			
Stall speed - with approach power	kn.	71.0			

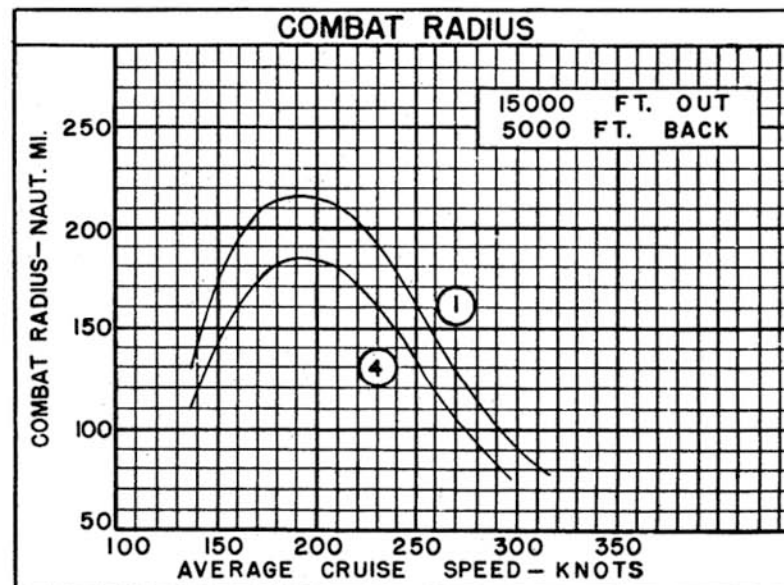
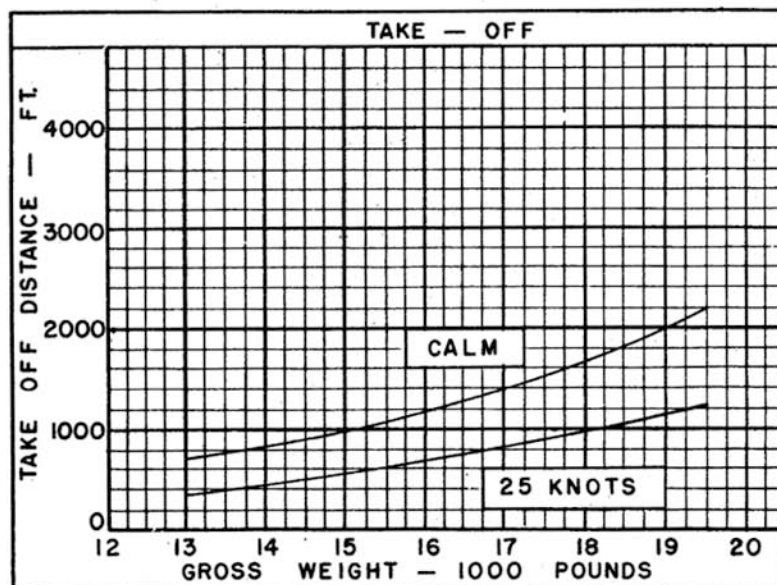
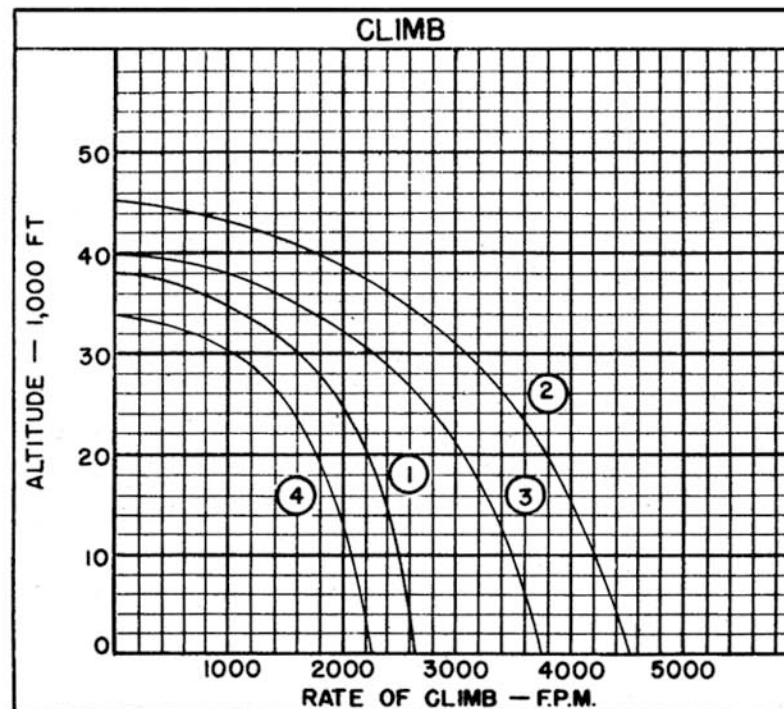
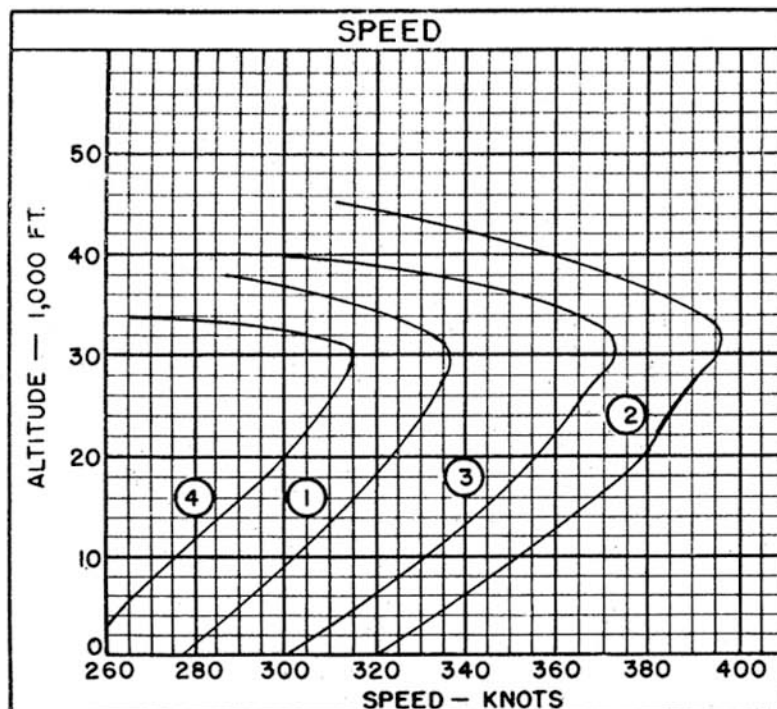
NOTES

(1) Normal Power

Performance is based on NATC flight test of F4U-5 airplane.

Range and radius are based on NATC flight test fuel consumption increased 5%.

All conditions are with 3 wing pylons and 8 Mk 9-3 rocket launchers aboard. Addition of 8 - 5" HVAR's decreases Condition (2) Vmax. at Sea Level by 22 knots and Vmax. at 31,000 feet by 28 knots.



○ LOADING CONDITION COLUMN NUMBER

NOTES

Water available for 8.8 minutes at combat power.

Spotting: 200 ft. length is required to spot 30 airplanes (wings folded) on the 96 ft. wide deck immediately aft of the forward ramp on CV-9 carriers.

GENERAL PURPOSE AND ESCORT FIGHTER COMBAT RADIUS PROBLEM (RECIPROCATING ENGINE)

WARM-UP, TAXI, TAKE-OFF: 10 minutes at normal power

CLIMB: To 15,000 feet at normal power; normal mixture

CRUISE-OUT: At 15,000 feet at V for long range; normal mixture. External tank dropped when empty.

COMBAT: 10 minutes at combat power plus 10 minutes at military power at 15,000 feet

DESCEND: To 5,000 feet

CRUISE-BACK: At 5,000 feet at V for long range; normal mixture

RESERVE: 20 minutes at V for long range at sea level plus 5% of initial fuel load

COMBAT RADIUS = CLIMB + CRUISE-OUT + CRUISE-BACK