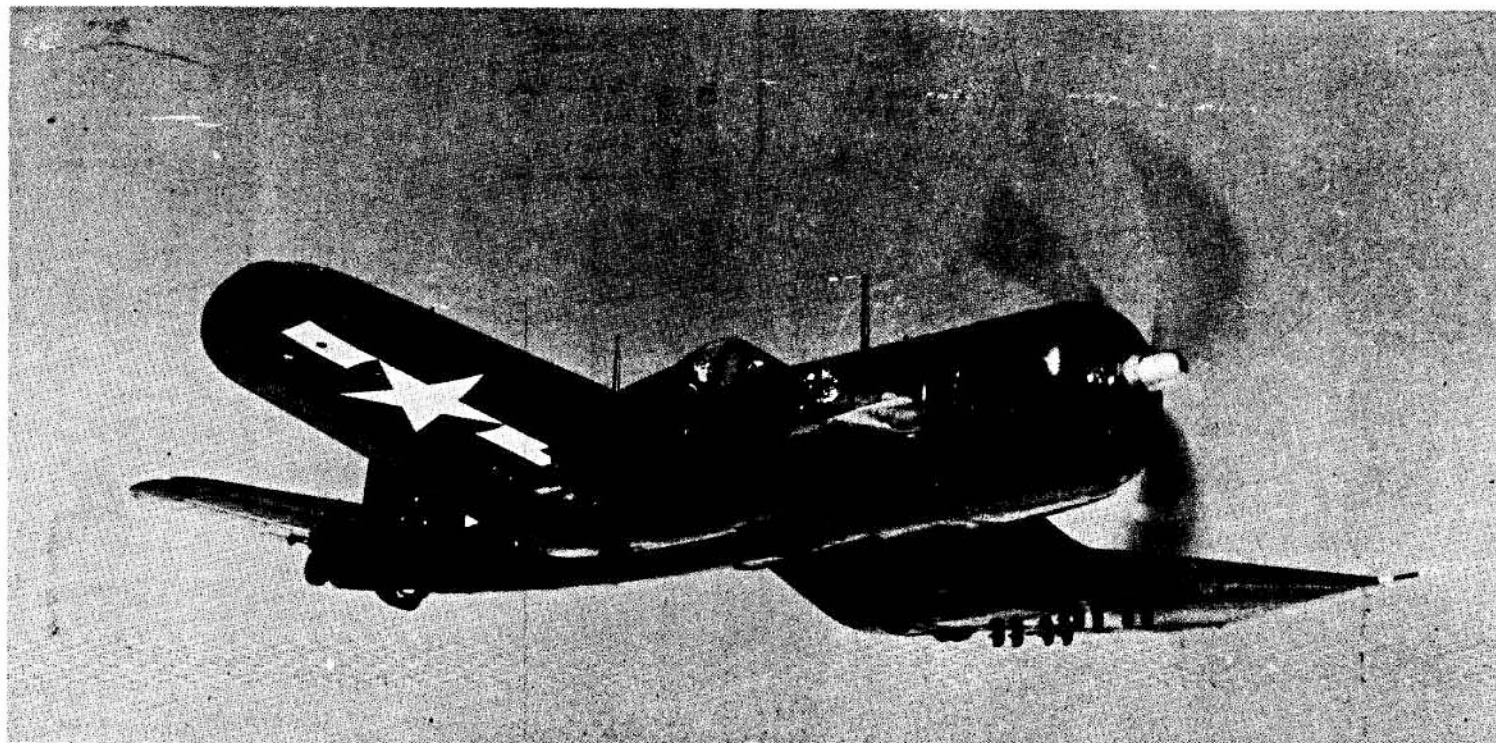
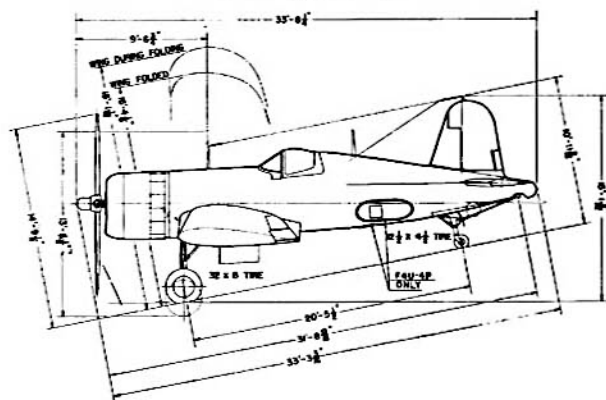
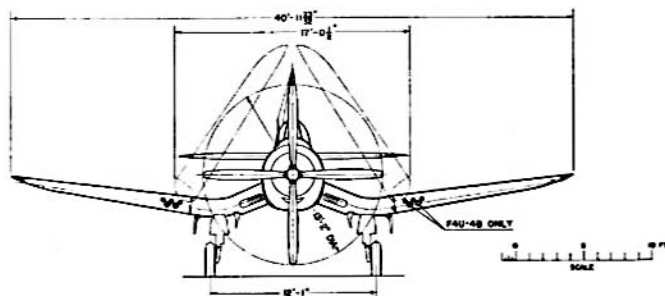
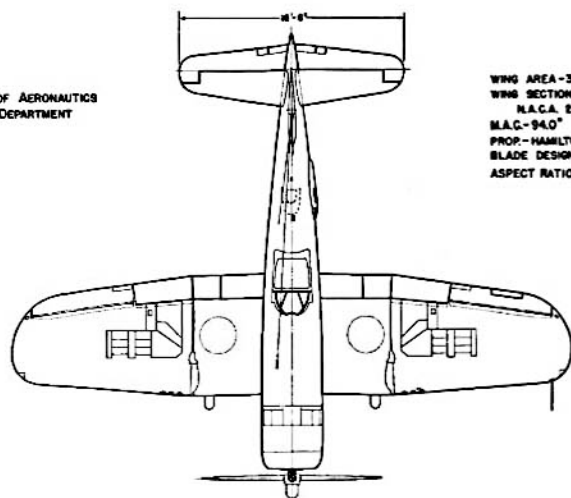




STANDARD AIRCRAFT CHARACTERISTICS
F4U-4 "CORSAIR"

BUREAU OF AERONAUTICS
NAVY DEPARTMENT



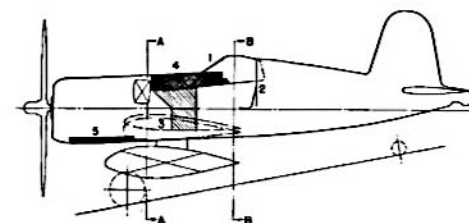
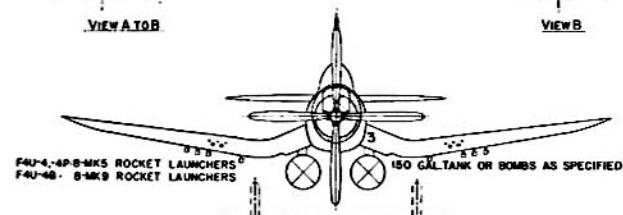
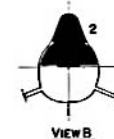
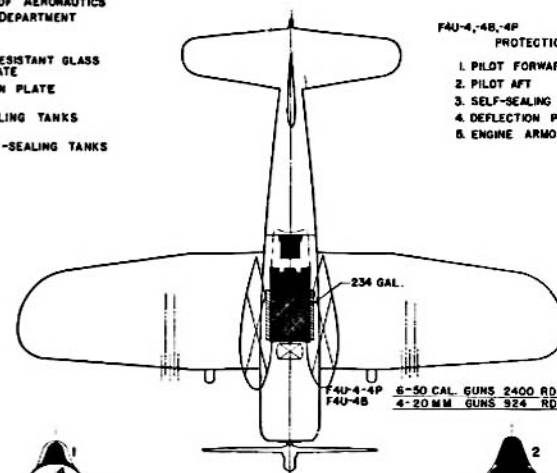
DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

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

FAU-4, -4B, -4P
PROTECTION

- | | |
|-----------------------|-----------|
| 1. PILOT FORWARD | 36.5 LBS. |
| 2. PILOT AFT | 60.2 LBS. |
| 3. SELF-SEALING CEELS | 177 LBS. |
| 4. DEFLECTION PLATE | 20 LBS. |
| 5. ENGINE ARMOR | 175 LBS. |



MISSION AND DESCRIPTION

This airplane is a conventionally powered, high performance, carrier or land based, general purpose fighter.

The primary mission is the destruction of enemy aircraft, airborne or grounded. This mission may be carried out on an offensive basis in which case the action would presumably be carried out over enemy held territory or on a defensive basis when interception of an incoming enemy attack becomes a necessity. A secondary mission of this type results from its flexibility in regard to ordnance carrying capabilities. Armed with bombs and/or rockets, within prescribed limits, it may be used to great advantage for destroying enemy ground installations.

The outstanding configuration characteristic of this low-wing monoplane is the inverted gull appearance of the wing coupled with great length of fuselage ahead of the cockpit canopy.

It is of conventional structure. The wing center section is a metal box-beam, with single-spar panels fabric covered aft of the spar. Wood ailerons, metal slotted flaps. Stabilizer of either conventional or metalite construction with fabric-covered movable surfaces. Quick-change power-plant with 13.5 gal. water tank. Folding wings.

DIMENSIONS

SPAN.....41'-0"
 LENGTH.....33'-8"
 HEIGHT.....14'-9"
 WING AREA.....314 sq. ft.
 M.A.C.....94"
 TREAD.....12'-1"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	9167.....	
BASIC.....	9859.....	
DESIGN.....	10138.....	8.10
COMBAT.....	12405.....	7.25
MAX.T.O.....	16160.....	5.60
MAX.LAND.....	15000.....	

All weights are actual.

FUEL AND OIL

Gals. - No. Tanks - Location
 234.....1...Fuse.(protected)
 300.....2...Wing (drop)
 FUEL GRADE.....115/145
 FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....23.5
 SPEC.....AN-O-8
 GRADE.....1100-1120

ELECTRONICS

TRANSMITTER.....RT-18/ARC-1
 RECEIVER, LF.....R-23A/ARC-5
 RECEIVER, VHF.....R-4A/ARR-A
 IFF.....RT-22/APX-1

POWER PLANT

NO. & MODEL....(1) R-2800-18W
 MFR.....P. & W.
 SUPERCH.....2 Stage, 2 Speed
 PROP.GEAR RATIO.....20:9
 PROP. MFR.....Ham. Std.
 PROP.DES.NO.....6501A-0
 NO.BL./DIA.....4/13'-2"

RATINGS

	Bhp.	@ Rpm.	@ Alt.
T.O.	2100	2800	S.L.
MTL.	2100	2800	1000'
	1900	2800	14000'
	1800	2800	23000'
NORMAL	1700	2600	7000'
	1630	2600	18000'
	1550	2600	26000'

SEE NOTE
 SPEC NO. N-8082

ORDNANCE

No.	Size	GUNS	
		Location	Rds.
6	.50 Cal.	Wing	2400
MK. 8-6 Illuminated Sight			

Type	Size	BOMBS	
		Location	No.
Bomb	1000#	Wing	2
Bomb	500#	Wing	2
Bomb	250#	Wing	2

ROCKETS			
HVAR	5"	Wing	8
on MK.5 Rocket Launcher			
A.R.	11.5"	Wing	2



PERFORMANCE SUMMARY

LOADING CONDITION	(1) Fighter 1-150 Gal. Tank External	(3) Rocket 2-11.75" AR 8-5" HVAR	(5) Escort 2-150 Gal. Tanks External	
TAKE-OFF WEIGHT	lbs 13597	16160	14658	
Fuel (fixed/drop)	lbs 1404/900	1404/	1404/1800	
Bombs	lbs			
Wing/Power Loading (A) lbs/sq. ft. lbs/bhp	43.3/5.7	51.5/10.5	46.7/9.5	
Stall Speed--Power off	kn 81.0	88.3	84.1	
Stall Speed--Power off - No Fuel	kn 73.8	84.4	74.4	
Stall Speed--Power on	kn 66.9	73.0	69.5	
Maximum Speed/Alt (B)	kn/ft 347/31400	303/30600	326/31000	
Take-off Distance, deck -- calm	ft 790	1349	974	
Take-off Distance, deck 25 kn.	ft 377	708	480	
Take-off Distance, Airport	ft			
Rate of climb -- sea level (B)	ft/min 2510	1880	2320	
Service Ceiling	(B) ft 38400	34800	36700	
Time-to-climb 10000 ft. (B)	min 4.2	5.9	4.7	
Time-to-climb 20000 ft. (B)	min 8.8	13.1	10.0	
Combat Range/V av 15000	ft. n.mi/kn 1005/185	360/182	1300/180	
Combat Radius/V av	ft. n.mi/kn 315/178	35/178	525/178	
LOADING CONDITION	(2) Combat	(4) Combat		
GROSS WEIGHT	lbs 12480	12480		
Engine power	Maximum	Normal		
Fuel	lbs 1404	1404		
Bombs/Tanks				
Max. speed at sea level	kn 325	280		
Max. speed/ACA	kn 393/20500	372/31800		
Combat speed/Alt.	kn/ft 378/15000	320/15000		
Rate of climb SL	ft/min 4770	2910		
Ceiling for 500 fpm R/C	ft 38500	37100		
Time-to-climb/Alt.	min/ft 4.9/20000	7.5/20000		

NOTES

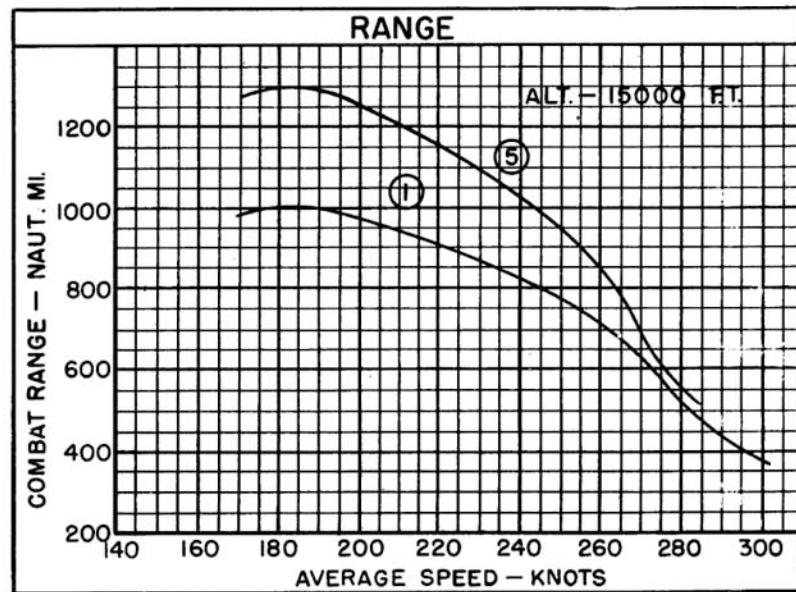
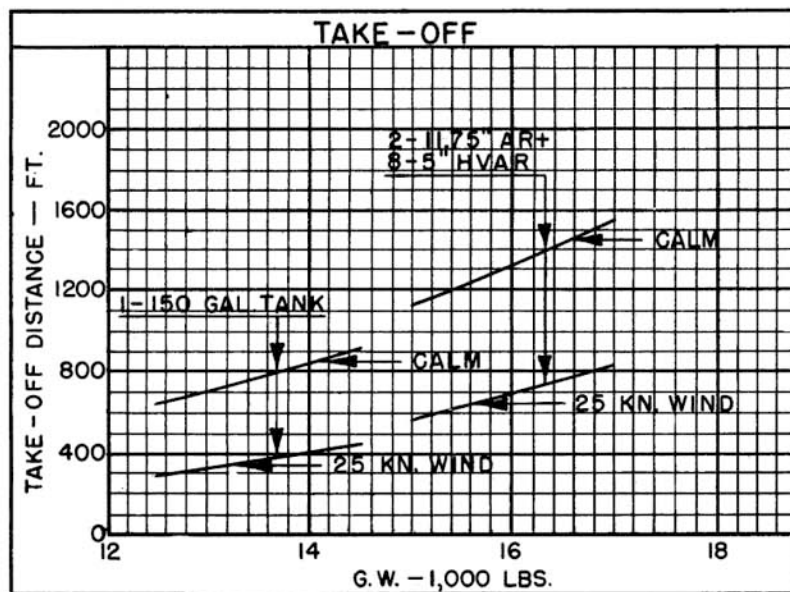
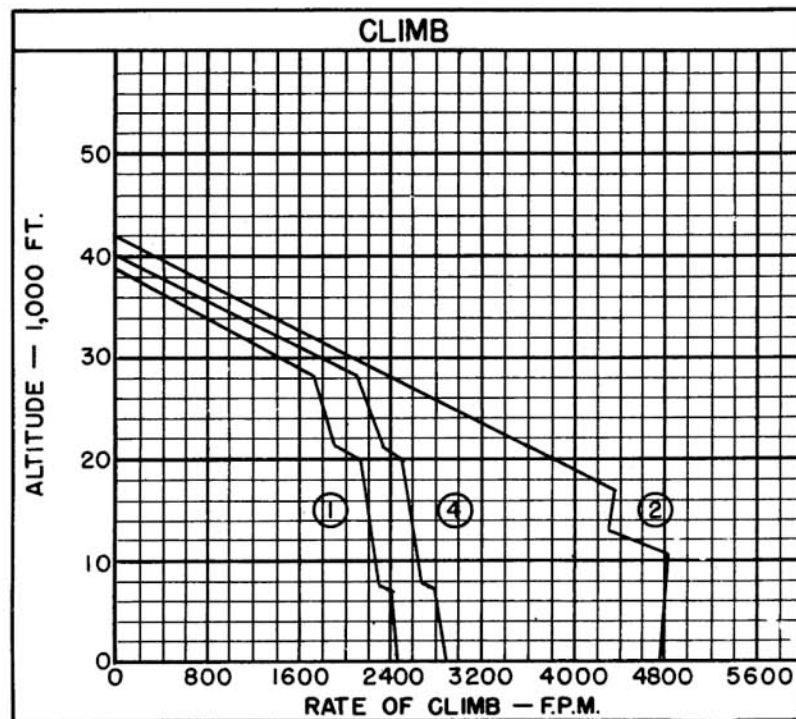
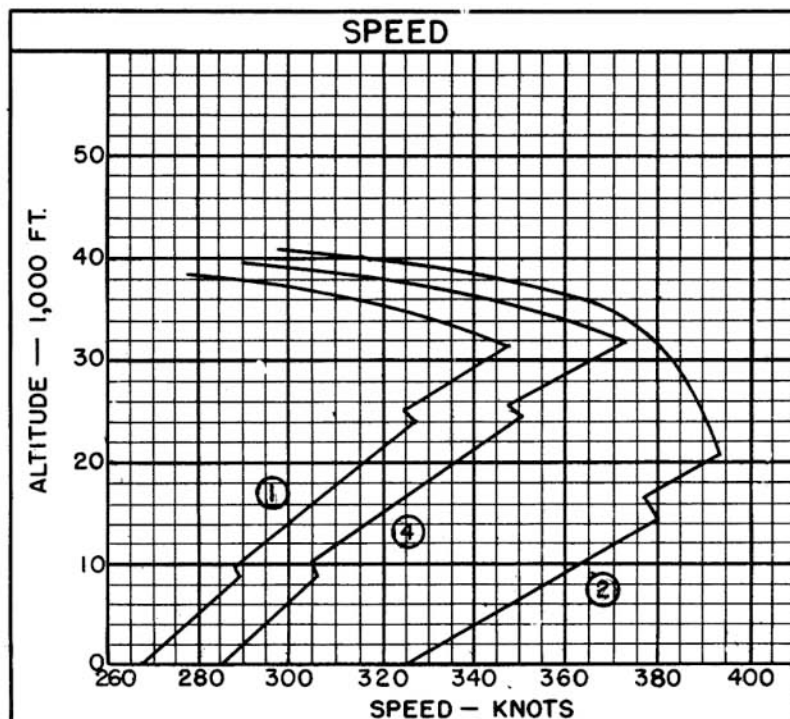
- (A) BHP at Maximum Critical Altitude
(B) Normal BHP

Performance is based on flight test of the F4U-4 airplane.

Range and radius are based on flight test fuel consumption data of the F4U-4 airplane increased by 5%.

Combat Condition: Two capped pylons aboard. Rocket launchers not aboard. Addition of 8 MK5-1 launchers decreases Vmax at S.L. of Condition (2) to 318 knots and Vmax/ACA to 384 knots/20400 ft.

NOTES CONTINUED ON LAST PAGE



○ LOADING CONDITION COLUMN NUMBER

NOTES

Clean Condition: Same as Combat Condition except pylons removed. At combat power, $V_{max}/SL = 333$ knots and $V_{max}/ACA = 403$ knots/20600 ft.

Fuel transfer: Provisions are incorporated for fuel transfer from droppable to main tanks after take-off.

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

Two wing pylons (capped when not in use) aboard in all conditions. Rocket launchers carried in rocket condition only.

FIGHTER COMBAT RADIUS FORMULA NO. F-1-CONDITIONS NOS.-(1), (3), & (5) RADIUS=CLIMB/CRUISE-OUT=CRUISE BACK							
<u>WARM-UP</u>	<u>RENDEZVOUS</u>	<u>CLIMB</u>	<u>CRUISE OUT</u>	<u>DROP BOMBS</u>	<u>COMBAT</u>	<u>CRUISE BACK</u>	<u>RESERVE</u>
20 min.	20 min. at	to	at		20 min.	at	60 min.
	sea level	15000 ft.	15000 ft.		at 15000 ft.	1500 ft.	at
<u>TAKE-OFF</u>	at	at	Vel. for	FIRE	10 min. WEP	170 kts.TAS	Vel. for
1 min.	60% N.S.P.	N.R.P.	Max. Range	ROCKETS	10 min.Mil.Pr.		Max.Range
	Auto Lean.	Auto.Lean	Auto.Lean		and descend	Auto.Lean.	Auto.Lean.

Engine ratings from Flight Test:

	<u>Bhp.</u>	<u>Rpm.</u>	<u>Alt.</u>
T.O.	2100	2800	S. L.
Mil.	2100	2800	3000'
	1900	2800	19000'
	1800	2800	25500'
Norm.	1700	2600	6800'
	1630	2600	20000'
	1550	2600	28000'