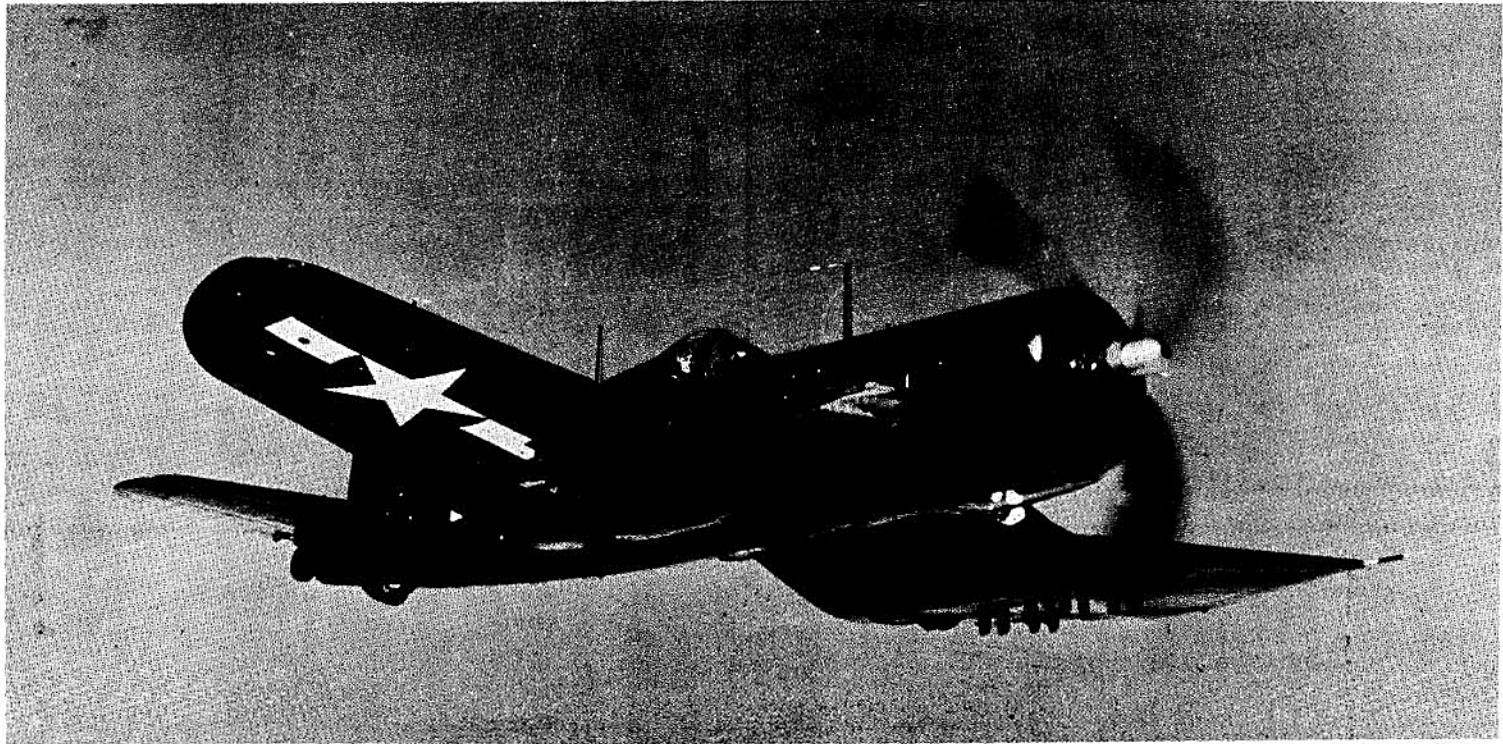
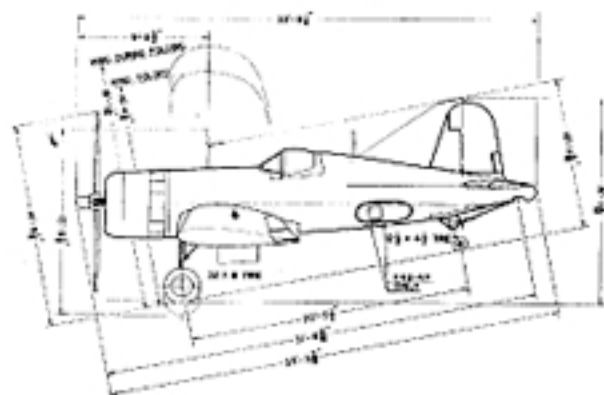
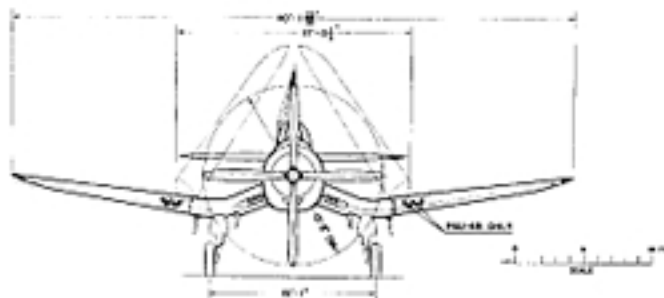
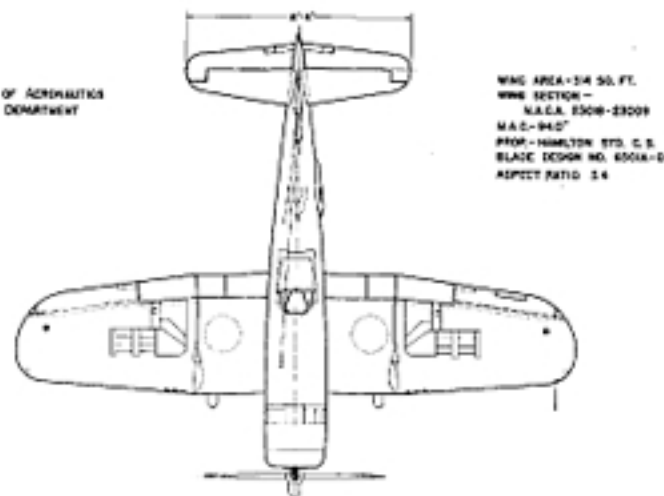




STANDARD AIRCRAFT CHARACTERISTICS
F4U-4P "CORSAIR"

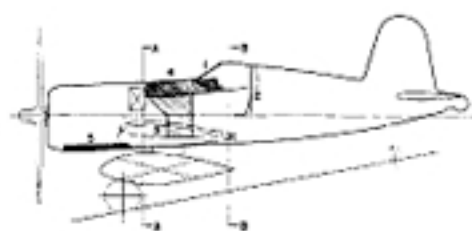
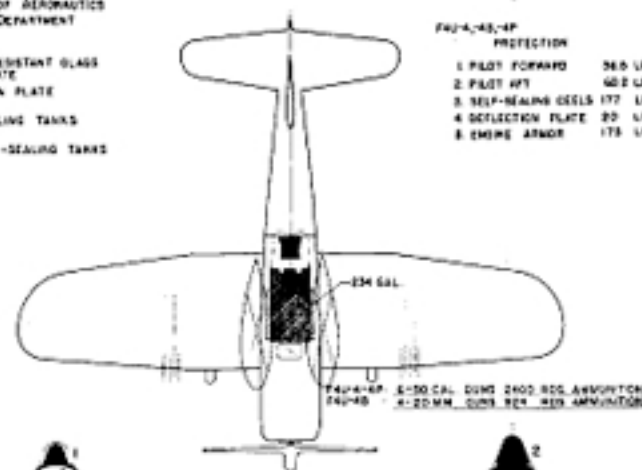
BUREAU OF AERONAUTICS
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

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



ARMAMENT & TANKS

F4U-4B-4P
PROTECTION

- | | |
|-----------------------|---------|
| 1. PILOT FORWARD | 360 LBS |
| 2. PILOT W/T | 600 LBS |
| 3. SELF-SEALING COILS | 177 LBS |
| 4. DEFLECTION PLATE | 30 LBS |
| 5. ENGINE ARMOR | 175 LBS |

F4U-4B-4P 8-50 CAL. GUNS 2400 RDS. AMMUNITION
F4U-4B 8-20 MM. GUNS 824 RDS. AMMUNITION

MISSION AND DESCRIPTION

This airplane is intended for photographic use, for reconnaissance, intelligence, bomb damage assessment, mapping, charting and high altitude large scale photography.

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. Flaps and landing gear hydraulically actuated. 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.....	9199	
BASIC.....	10024	
DESIGN.....	10138	8.10
COMBAT.....	12422	7.25
MAX.T.O.....	16160	5.60
MAX.LAND....	15000	

All weights are actual.

FUEL AND OIL

Gals. - No. Tanks - Location
 234.....1....Fus. (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-2A
 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-O
 NO.BL./DIA.....4/13'-2"

RATINGS

	Rpm. @	Alt.
T.O.	2100	2800 SL
WIL.	2100	2800 1000'
	1900	2800 14000'
	1800	2800 23000'
NORMAL	1700	2600 7000'
	1630	2600 18000'
	1550	2600 26000'

SPEC NO. K-8082

ORDNANCEGUNS

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

BOMBS AND ROCKETS

Type	Size	Location	No.
Bomb	1000#	Wing	2
Bomb	500#	Wing	2
Bomb	250#	Wing	2
HVAR	5"	Wing	8
Bomb director...	AN/ASG-10		
Rocket launchers..	MK. 5-1		

CAMERAS

One camera, vertical or oblique. May be K-18 (24") or K-17 (6" or 12" or 24").



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) PHOTOGRAPHIC 1-150 GAL. TANK EXTERNAL	(3) PHOTOGRAPHIC 2-150 GAL. TANK EXTERNAL	
TAKE-OFF WEIGHT		13540	14601	
Fuel (fixed/drop)	lbs	1404/900	1404/1800	
Bombs	lbs			
Wing/Power loading (A) lbs/sq. ft. lbs/bhp		43.2/5.7	46.6/9.5	
Stall Speed--Power off	kn	80.9	84.0	
Stall Speed--Power off - No Fuel	kn	73.7	74.3	
Stall Speed--Power on	kn	66.8	69.4	
Maximum Speed/Alt (B)	kn/ft	343/31400	322/31000	
Take-off Distance, deck -- calm	ft	783	966	
Take-off Distance, deck 25 kn.	ft	373	476	
Take-off Distance, Airport	ft			
Rate of climb -- sea level (B)	ft/min	2520	2330	
Service Ceiling (B)	ft	38400	36700	
Time-to-climb 10000 ft. (B)	min	4.2	4.7	
Time-to-climb 20000 ft. (B)	min	8.8	10.0	
Combat Range/V av 15000	ft. n.mi/kn	995/185	1285/180	
Combat Radius/V av	ft. n.mi/kn	310/178	520/178	
LOADING CONDITION		(2) COMBAT	(4) COMBAT	
GROSS WEIGHT	lbs	12422	12422	
Engine power		MAXIMUM	NORMAL	
Fuel	lbs	1404	1404	
Bombs/Tanks				
Max. speed at sea level	kn	321	276	
Max. speed/ACA ft.	kn	388/20400	368/31700	
Combat speed/Alt.	kn/ft	373/15000	368/31700	
Rate of climb SL	ft/min	4790	2920	
Ceiling for 500 gpa R/C	ft	39500	37100	
Time-to-climb/Alt.	min/ft	4.8/20000	7.5/20000	

NOTES

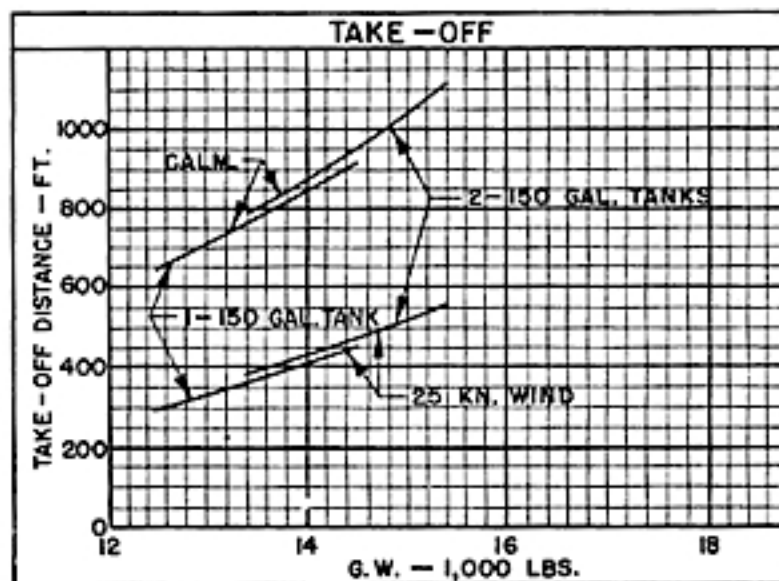
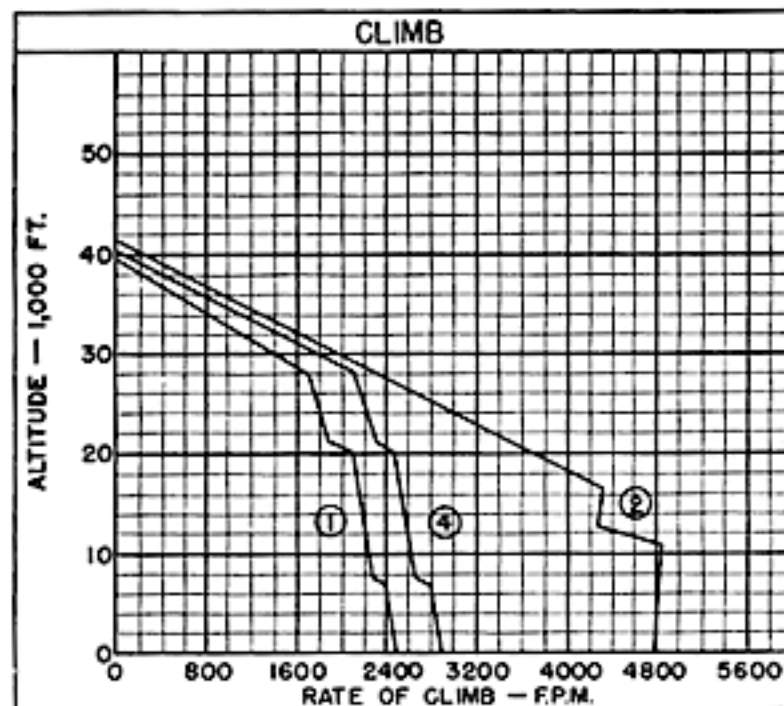
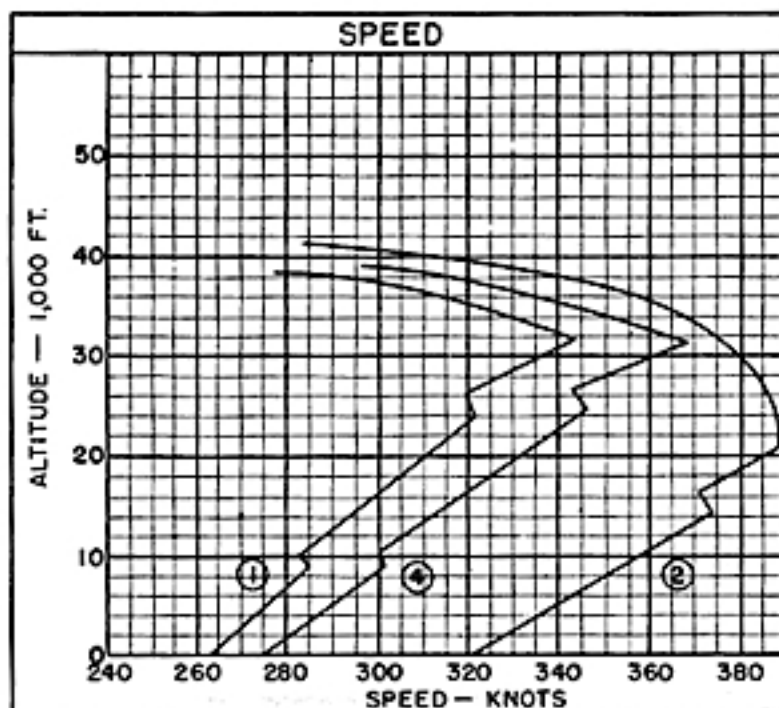
(A) HGF at Maximum Critical Altitude

(B) Normal HGF

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 eight MK5-1 launchers decreases Vmax at S.L. of condition (2) to 314 knots and Vmax/ACA to 380 knots/20300 feet.

Notes continued on last page.



○ LOADING CONDITION COLUMN NUMBER

NOTES

Clean Condition: Same as Combat Condition except pylons removed. At combat power, V_{max} at S.L. = 329 knots and $V_{max}/ACA = 397$ knots/20500 ft.

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

Spotting: 20 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)

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 sea level	at 15000 ft.	at 15000 ft.		20 min. at 15000 ft.	at 1500 ft.	60 min. 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.Wil.Pr.		Max.Range
	Auto Lean.	Auto Lean.	Auto Lean.		and descend	Auto. Lean.	Auto. Lean.

Engine ratings from Flight Test:

	<u>Rpm.</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