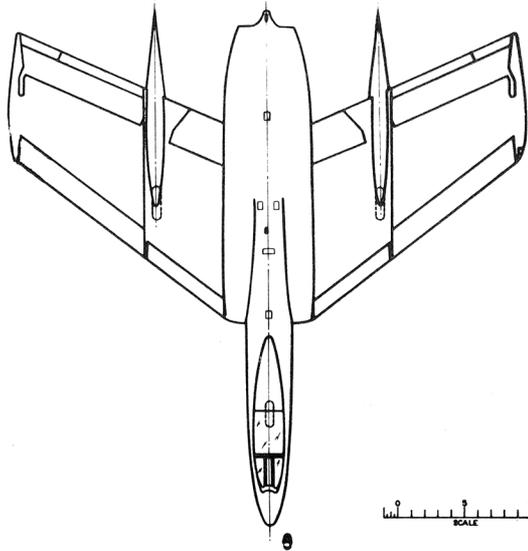
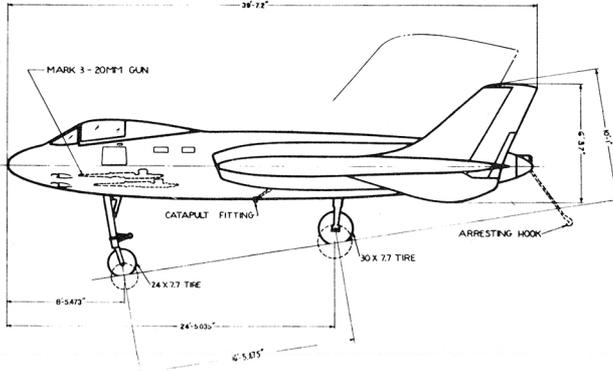
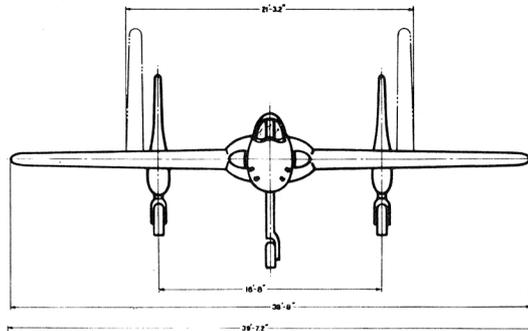


STANDARD AIRCRAFT CHARACTERISTICS
F7U-1 "CUTLASS"
CHANCE VOUGHT

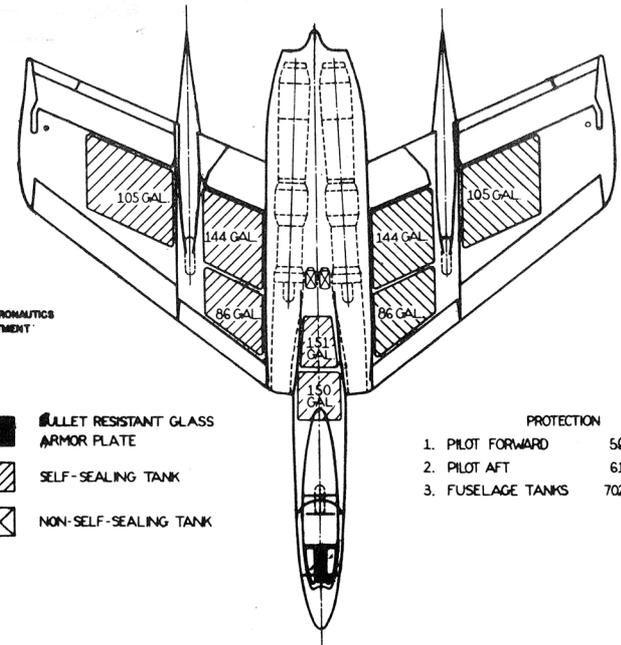
WING AREA - 495.90 FT.
 WING SECTION - C.A. SPECIAL
 * COI-100-103-81-00
 PERPENDICULAR TO 1/8 CHORD LINE
 MEAN GEOMETRIC CHORD - 157"



0 10 FT.
 SCALE



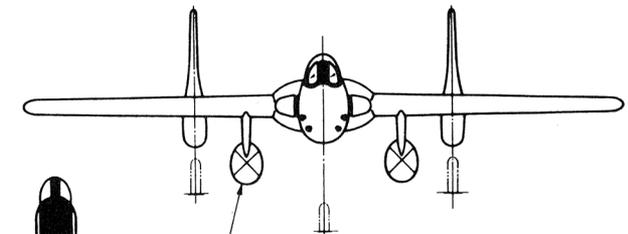
DESCRIPTIVE ARRANGEMENT



BUREAU OF AERONAUTICS
 NAVY DEPARTMENT

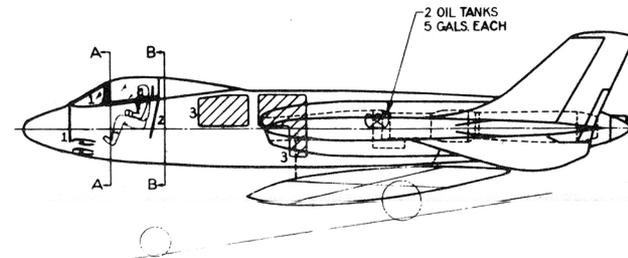
-  BULLET RESISTANT GLASS ARMOR PLATE
-  SELF-SEALING TANK
-  NON-SELF-SEALING TANK

- PROTECTION
1. PILOT FORWARD 500 LBS.
 2. PILOT AFT 61.0 LBS.
 3. FUSELAGE TANKS 702.50 LBS.



2 250 GAL.
 JETTISONABLE
 FUEL TANKS

0 5 10 FT.
 SCALE



2 OIL TANKS
 5 GALS. EACH

MISSION AND DESCRIPTION

The F7U-1 is a carrier based single-seat fighter. Its primary mission is the destruction of enemy aircraft.

The folding wings are fitted with "ailevators" which combine the function of elevators and ailerons. Full-span retractable slats in the leading edge are used in landing. There are no landing flaps. Split flaps in the center section trailing edge are used as speed brakes.

The main gear of the tricycle landing gear retracts into the lower vertical fin stubs.

The cabin is pressurized, with an ejection seat fitted.

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	12,837.....	
BASIC.....	13,516.....	
DESIGN.....	17,700.....	7.5
COMBAT.....	17,707.....	7.5
MAX.T.O.....	24,000.....	5.3
MAX.LAND.		
Field...24,000.....		
Deck...16,500.....		

All weights calculated.
See Notes

FUEL AND OIL

Gal.	No. Tanks	Location
670	6	Wing, Seal
301	2	Fuse, Seal
500	2	Wing, Drop

FUEL GRADE.....115/145
FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....	10
SPEC.....	AN-0-9
GRADE.....	1010

ELECTRONICS

VHF COMM.....AN/ARC-1
VHF HOMING.....AN/ARR-2A
GUN DIRECTING.....AN/APG-30
AUTO.D.F.....AN/ARN-6
ALTIMETER.....AN/APN-1

POWER PLANT

NO. & MODEL...(2) XJ-34-WE-32
MFR.....Westinghouse
AFTERBURN.....Integral
A.B.MFR.....Westinghouse

RATINGS

Lbs. @ Rpm @ Alt.

T.O. (A.B.)	4900	12500	SSL
MIL. (A.B.)	4900	12500	SSL
MIL.	3370	12500	SSL
NORM.	3020	12500	SSL

SPEC. NO. WAGT-X24C10-2

ORDNANCE**GUNS**

No.	Size	Location	Rds.
4	20mm	Nose	800

FIRE CONTROL

AFCS.....Mk. 6 Mod. 0

DIMENSIONS

WING AREA.....496 sq. ft.
SPAN.....38'- 8"
LENGTH.....39'- 7"
HEIGHT.....11'-10"
TREAD.....16'- 8"
M.A.C.....12'-10"



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) FIGHTER Full Internal Fuel		(5) FIGHTER 2 x 250 Gal. Tanks
TAKE-OFF WEIGHT	lbs.	20,038		23,387
Fuel	lbs.	5,826		5,826/3,000
Bombs	lbs.			
Wing/Power Loading (A)	lbs/sq.ft;lbs/bhp.	40.4		47.4
Stall Speed--Power off	kn.	97.3		106
Stall Speed--Power off - No Fuel	kn.	82.2		84
Stall Speed--Power on	kn.			
Maximum Speed/Alt (B)	kn/ft.	496/20,000		458/15,000
Take-off Distance, deck -- calm	ft.	2,300(1,250)		3,640(1,870)
Take-off Distance, deck 25 kn.	ft.	1,363(725)		2,260(1,092)
Take-off Distance, Airport	ft.			
Rate of climb -- sea level (B)	ft/min.	3,900		2,950
Service Ceiling (B)	ft.	38,000		31,500
Time-to-climb 20,000 ft. (B)	min.	9.1		9.9
Time-to-climb 30,000 ft. (B)	min.	16.3		31.0
Combat Range/V av	ft. n.mi/kn.	975/400		1,420/391
Combat Radius/V av	ft. n.mi/kn.	290/400		487/391
LOADING CONDITION		(2) COMBAT	(3) COMBAT	(4) COMBAT
GROSS WEIGHT	lbs.	17,707	17,707	17,707
Engine power		Combat	Military	Normal
Fuel	lbs.	3,496	3,496	3,496
Bombs/Tanks				
Max. speed at sea level	kn.	602	508	463
Max. speed/Alt	kn/ft.	602/S.L.	534/15,000	499/20,000
Combat speed/Alt	kn/ft.	544/35,000	506/35,000	480/35,000
Rate of climb SL	ft/min.	15,100	5,760	4,570
Ceiling for 500 fpm R/C	ft.	50,000	40,300	38,000
Time-to-climb/Alt.	min/ft.	2.8/30,000	8.7/30,000	11.0/30,000

NOTES

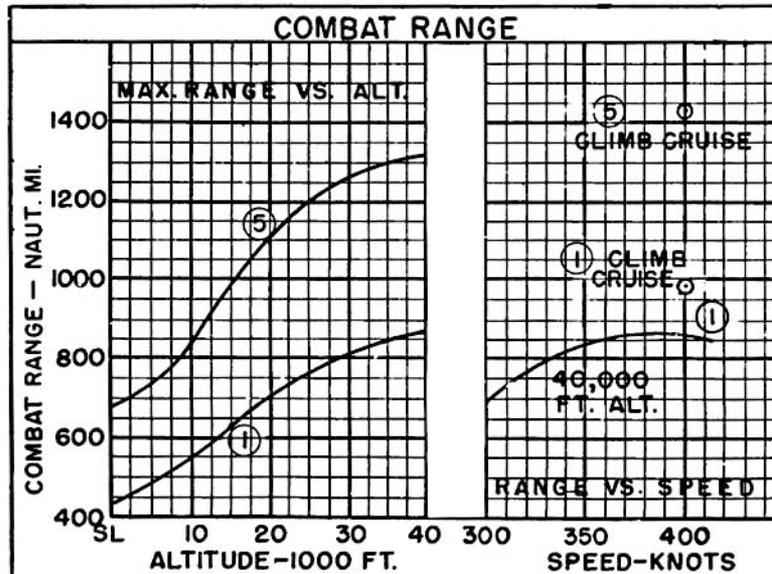
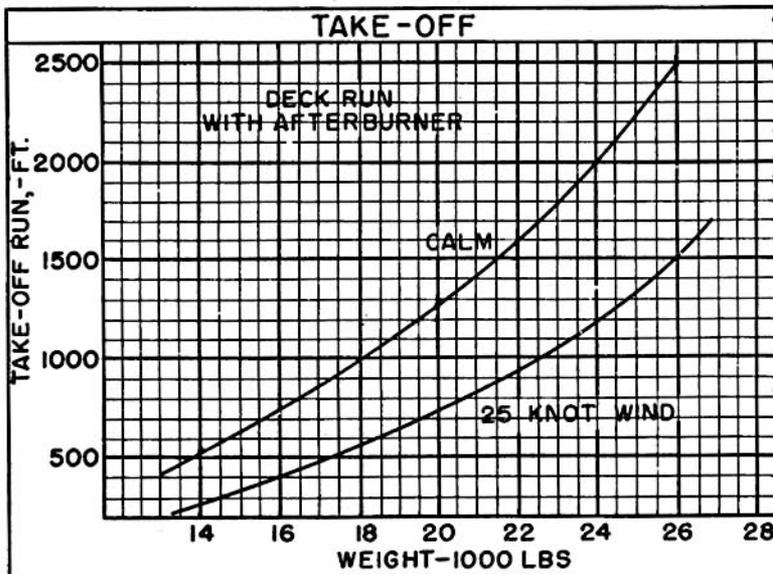
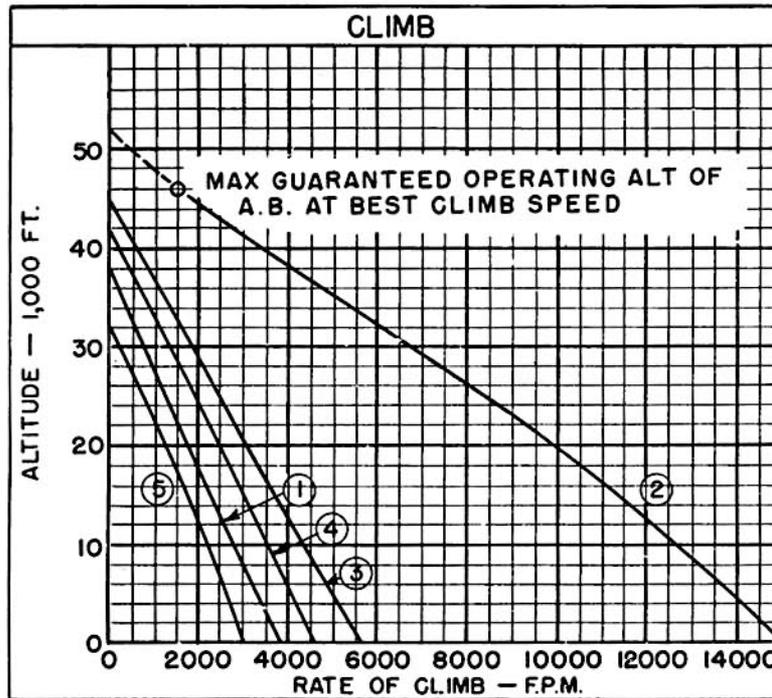
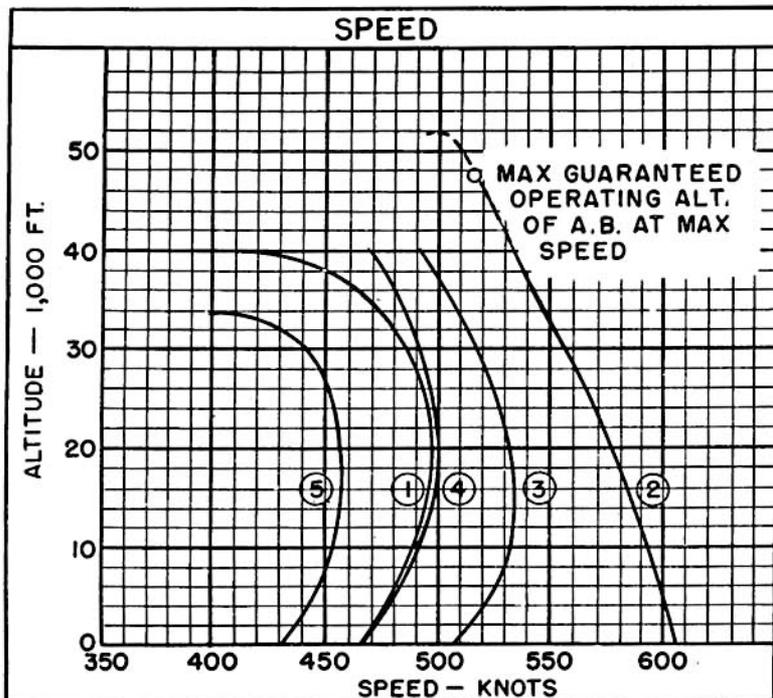
- (A) BHP at Maximum Critical Altitude
- (B) Normal BHP

Performance is based on calculations.

Range and radius are based on engine specification fuel consumption data increased by 5%.

Take-off distances in parentheses are with afterburner operating.

Standard Aircraft Characteristics NAVAER 13350 (REV. 1-49)



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1395E (REV. 1-49)

NOTES

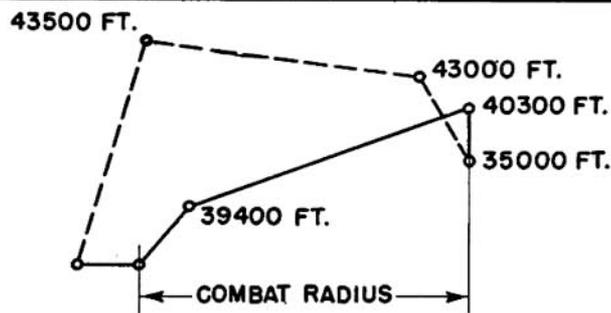
Maximum landing weights are based on landing gear strength considerations.

Maximum take-off weight is based on the stalling speed (on a 95° F. day) with combat thrust to provide a 5 mph margin between stalling speed and the catapult end speed of an H-4-1 catapult.

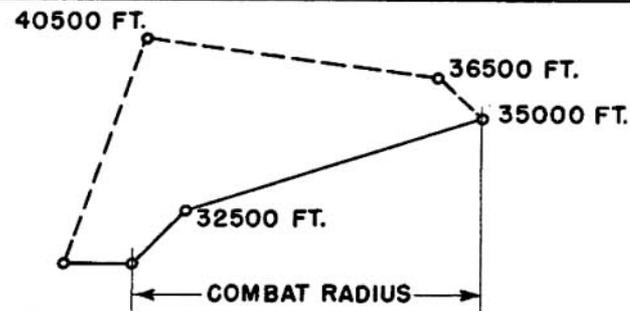
FIGHTER COMBAT RADIUS PROBLEM NO. F-5

<p><u>WARM-UP</u> <u>TAKE-OFF</u> <u>RENDEZVOUS</u> 5 min. at sea level static normal power of all engines</p>	<p><u>CLIMB (A)</u> at max, rate with mil. power to initial cruise-cut alt. (Alt. not greater than alt. for 300 ft./min. max. rate of climb with normal power)</p>	<p><u>CRUISE-OUT</u> with optimum range operation. (State altitudes and any special engine operations involved)</p>	<p><u>DESCEND</u> to 35000 ft. if altitude at end of Cruise-out is greater than 35000 ft. (no fuel used no distance made good) <u>DROP TANKS</u> only when empty and state when dropped</p>	<p><u>COMBAT</u> 35000 ft. (or at alt. at end of Cruise-out if less than 35000 ft.) and Vmax 15 min. at Mil. power of which 5 min. is with augmentation if available (Fuel used, but no distance made good)</p>	<p><u>CLIMB (B)</u> to initial cruise-back alt. under same conditions as for Climb (A) (Fuel used and distance made good)</p>	<p><u>CRUISE-BACK</u> under same conditions as Cruise-Out</p>	<p><u>RESERVE</u> 10% of total initial fuel load.</p>
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$$\text{COMBAT RADIUS} = \text{CLIMB (A)} \neq \text{CRUISE-OUT} = \text{CRUISE BACK} \neq \text{CLIMB (B)}$$



①



⑤