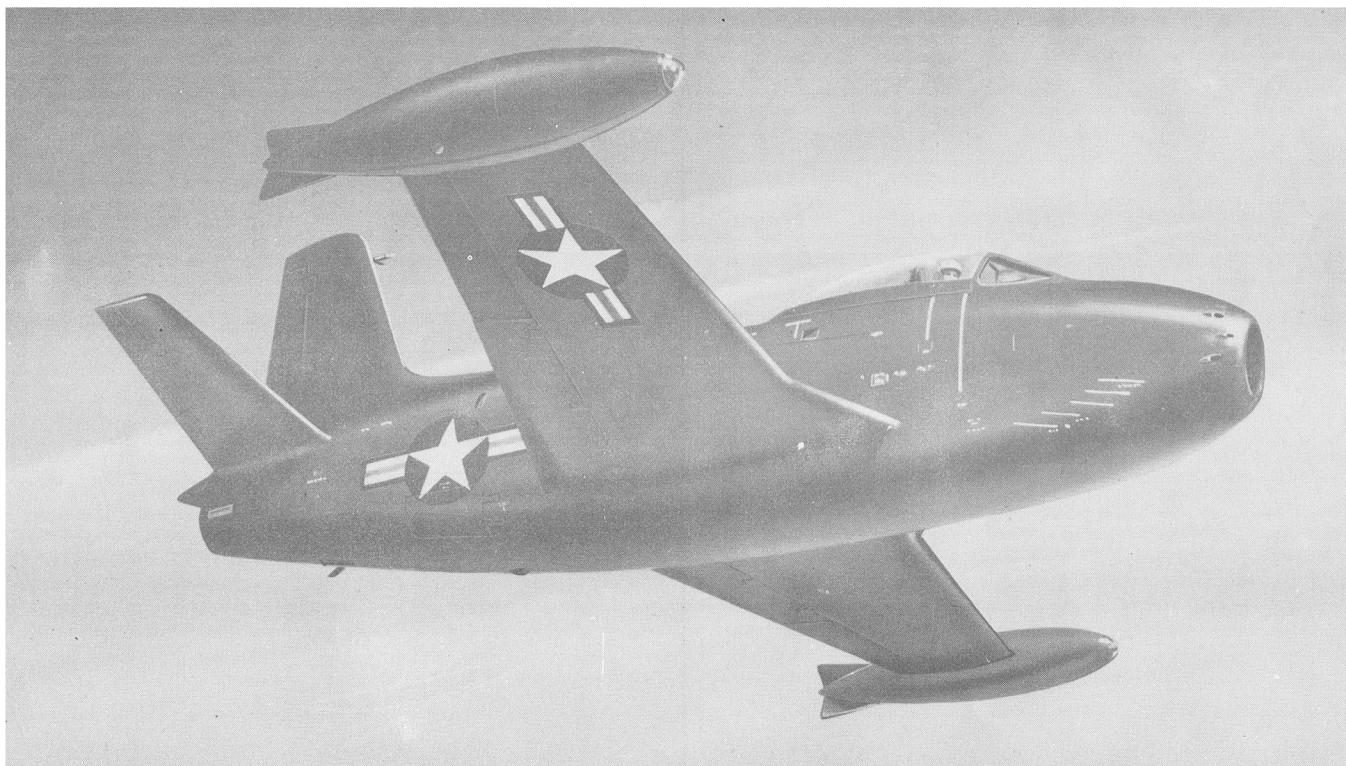
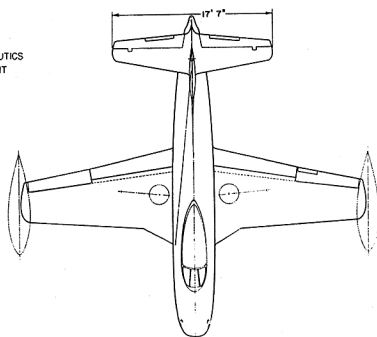


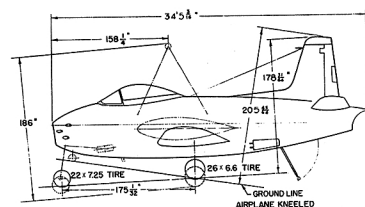
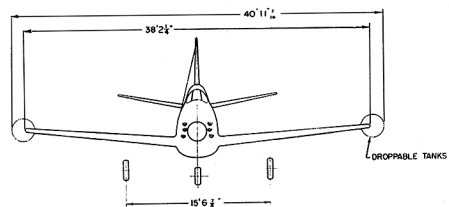


STANDARD AIRCRAFT CHARACTERISTICS
FJ-1 "FURY"
NORTH AMERICAN

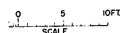
BUREAU OF AERONAUTICS
NAVY DEPARTMENT



WING AREA 221.3750 FT.
WING SECTION NACA 64-112
M.A.C. 84.55 IN.
ASPECT RATIO 6.45

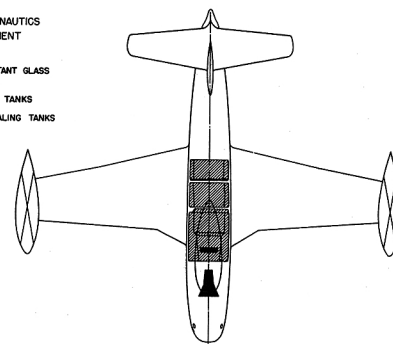


DESCRIPTIVE ARRANGEMENT



BUREAU OF AERONAUTICS
NAVY DEPARTMENT

■ BULLET RESISTANT GLASS
ARMOR PLATE
▨ SELF-SEALING TANKS
⊗ NON SELF-SEALING TANKS



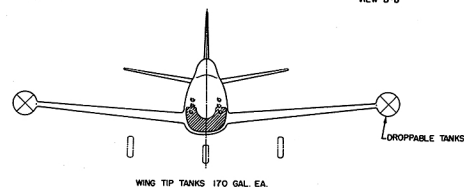
6 - 50 CAL. GUNS 250 RDS. AMMUNITION PER GUN



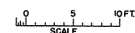
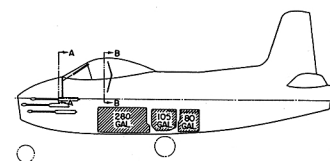
VIEW A-A



VIEW B-B



WING TIP TANKS 170 GAL. EA.



ARMAMENT & TANKS

PROTECTION
1. PILOT FORWARD - 63.1 LBS.
2. PILOT AFT - 36.9 LBS.
3. SELF SEALING CELLS - 558 LBS.

MISSION AND DESCRIPTION

The FJ-1 is a single-place fighter for use aboard aircraft carriers.

The wing design incorporates an NACA low-drag laminar flow airfoil section. Structurally the wing includes two outer panels attached to and separable from the fuselage. No provisions are made for folding wings. One single-slotted flap is provided on each wing. Provisions are made in the design and operation of the nose landing gear for installing kneeling wheels.

Controls consist of conventional ailerons, elevators, and rudder. A hydraulic boost system decreases the pilot control forces of the ailerons and elevators.

Speed brakes are installed side-by-side on the lower aft end of the fuselage.

DIMENSIONS

WING AREA.....221 sq. ft.
SPAN.....38'- 2"
LENGTH.....34'- 5"
HEIGHT.....14'-10"
TREAD.....15'- 7"
M.A.C.....84"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	8,843.....	
BASIC.....	9,354.....	
DESIGN.....	10,800.....	7.0
COMBAT.....	12,824.....	6.7
MAX.T.O.....	15,600.....	5.4
MAX.LAND.....	15,600.....	

All weights are actual.

FUEL AND OIL

Gals.	No. Tanks	Location
280	1 (Seal.)	Fuse., Fwd.
105	1 (Seal.)	Fuse., Ctr.
80	1 (Seal.)	Fuse., Aft
340	2	Tip Tanks
FUEL GRADE.....JP-1		
FUEL SPEC.....AN-F-32		
OIL SEE NOTES		

CAPACITY (Gals.).....6.5
GRADE.....1065
SPEC.....AN-O-8

ELECTRONICS

VHF RADIO.....AN/ARC-1A
HOMING.....AN/ARR-2A
IFF.....AN/APX-1A
RANGE RECEIVER.....AN/ARC-5

POWER PLANT

NO. & MODEL.....(1) J35-A-2
MFR.....Allison

RATINGS

Lbs. @ Rpm @ Alt.

T. O.	4,000	7,700	S.S.L.
MIL.	4,000	7,700	S.S.L.
NORM.	3,350	7,400	S.S.L.

SPEC. NO. F-557
SEE NOTES

ORDNANCEGUNS

No.	Size	Location	Rds.
6	.50 cal.	Nose	1,500

FIRE CONTROL

Mk. 23 Gunsight



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) FIGHTER 2 Wing-Tip Tanks		
TAKE-OFF WEIGHT	lbs.	15,115		
Fuel (Internal/External)	lbs.	2,790/2,040		
Bombs	lbs.			
Wing/Power Loading (A)	lbs/sq.ft; lbs/bhp.	59.3/-		
Stall Speed--Power off	kn.	105.5		
Stall Speed--Power off - No Fuel	kn.	88.8		
Stall Speed--Power on	kn.	105.5		
Maximum Speed/Alt (B)	kn/ft.	475/9,000		
Take-off Distance, deck -- calm	ft.	2,635		
Take-off Distance, deck 25 kn.	ft.	1,604		
Take-off Distance, Airport	ft.			
Rate of climb -- sea level (B)	ft/min.	3,300		
Service Ceiling (B)	ft.	32,000		
Time-to-climb 20,000 ft. (B)	min.	8.7		
Time-to-climb 30,000 ft. (B)	min.	18.7		
Combat Range/V av	ft. n.mi/kn.	1,300/375		
Combat Radius/V av	ft. n.mi/kn.	530/375		
LOADING CONDITION		(2) COMBAT	(3) COMBAT	
GROSS WEIGHT	lbs.	12,824	12,824	
Engine power		Military	Normal	
Fuel	lbs.	2,790	2,790	
Bombs/Tanks				
Max. speed at sea level	kn.	510	468	
Max. speed/Alt	kn/ft.	510/S.L.	480/10,000	
Combat speed/Alt	kn/ft.	447/35,000	440/35,000	
Rate of climb SL	ft/min.	5,660	4,750	
Ceiling for 500 fpm R/C	ft.	38,000	35,900	
Time-to-climb/Alt.	min/ft.	12.7/35,000	17.3/35,000	

NOTES

(A) BHP at Maximum Critical Altitude

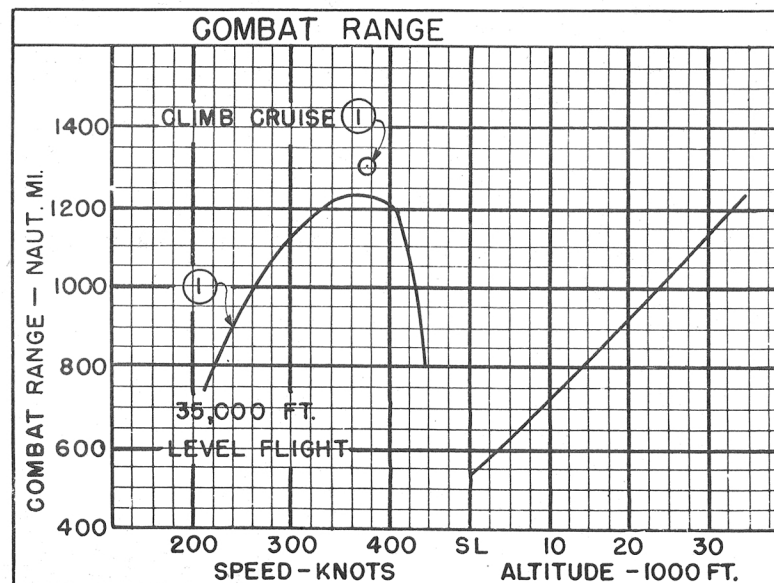
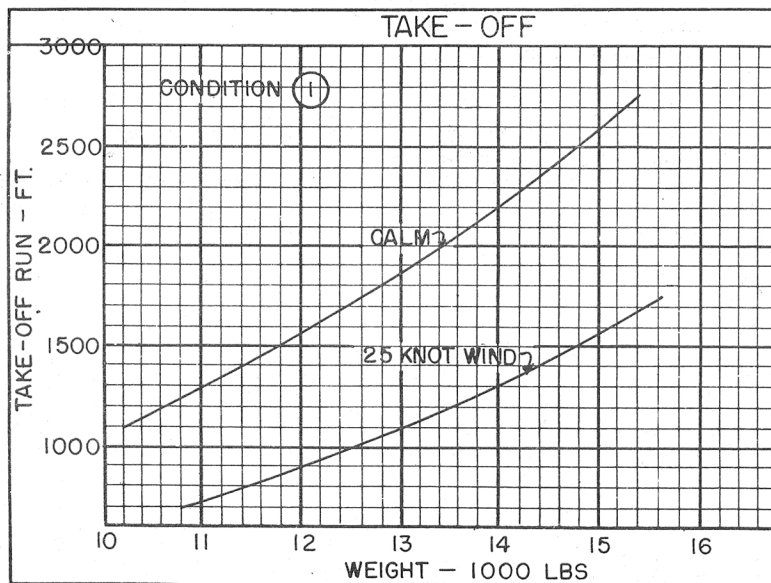
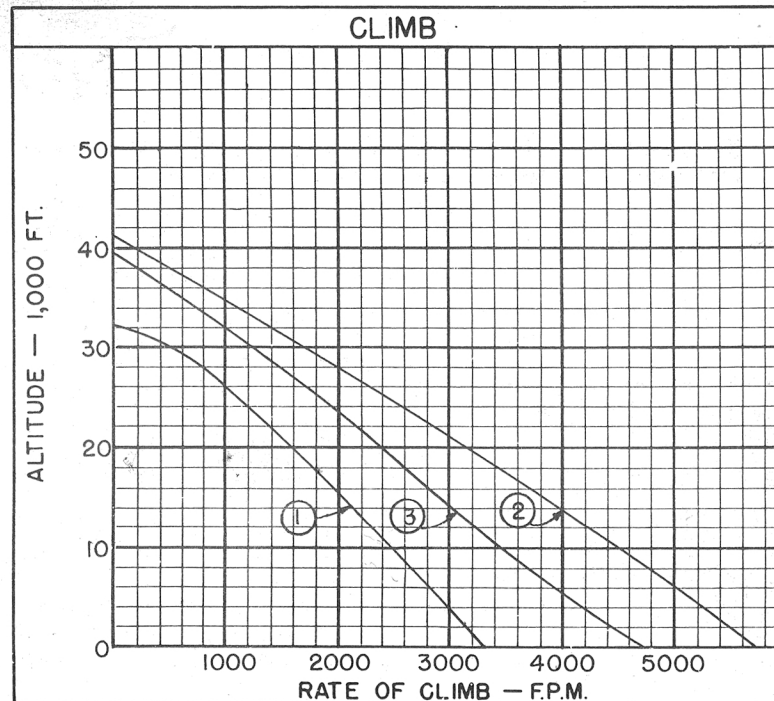
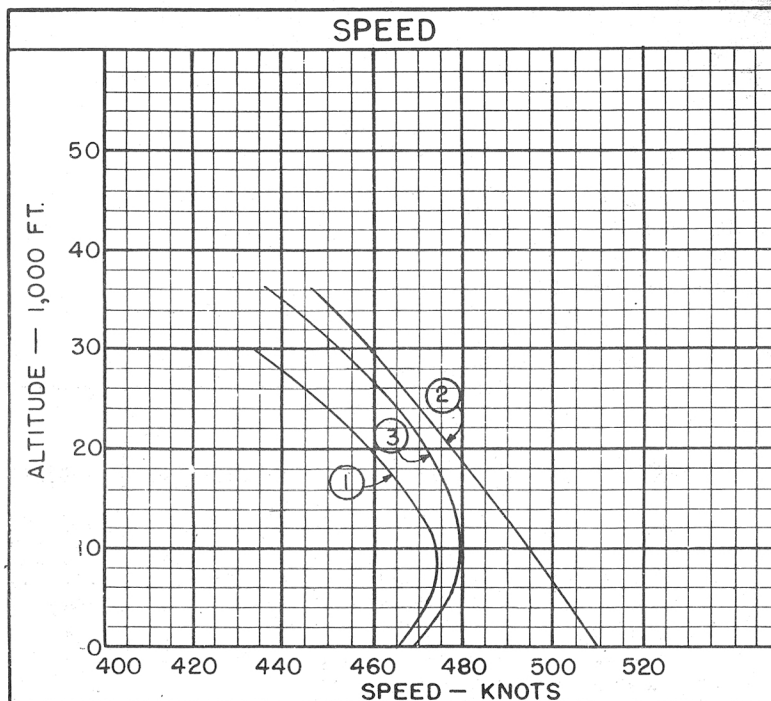
(B) Normal BHP

Performance is based on flight test of XFJ-1 airplane.

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

Spotting: 200 ft. length is required to spot 23 planes on the 96 ft. wide flight deck immediately aft of the forward ramp on the CV-9 class carriers.

Performance based on gasoline AN-F-48 (115/145) assuming same engine performance as with JP-1.



○ LOADING CONDITION COLUMN NUMBER

NOTES

The Power Plant ratings listed are nominal. The guaranteed minimum ratings are as follows:
(This chart is based on the 4,000 lb. rating.)

	LBS.	RPM	ALT.
T. O.	3,750	7,700	S.S.L.
MIL.	3,750	7,700	S.S.L.
NORMAL	3,270	7,400	S.S.L.

FIGHTER COMBAT RADIUS PROBLEM NO. F-5 (Gas Turbine Eng.)

<u>WARM-UP TAXI TAKE-OFF</u>	<u>CLIMB (A)</u>	<u>CRUISE-OUT</u>	<u>DESCEND</u>	<u>COMBAT</u>	<u>CLIMB (B)</u>	<u>CRUISE-BACK</u>	<u>RESERVE</u>
5 min. at sea level static normal power of all engines	at max. rate with mil. power to initial cruise-out alt. (Alt. not greater than alt. for 300 ft./min. max. rate of climb with normal power)	with optimum range operation. (State altitudes and any special engine operations involved.)	to 35,000 ft. unless alt. at end of cruise-out is less (No fuel used, no distance made good) <u>DROP TANKS</u> only when empty and state when dropped	35,000 ft. or at alt. at end of cruise-out if less, and V_{max} 15 min. at Mil. power of which 5 min. is with augmentation if available (Fuel used, but no distance made good)	to initial cruise-back alt. under same conditions as for Climb (A) (Fuel used and distance made good)	under same conditions as Cruise-Out	10% of total initial fuel load.

$$\text{COMBAT RADIUS} = \text{CLIMB (A)} \div \text{CRUISE-OUT} = \text{CRUISE-BACK} \div \text{CLIMB (B)}$$

Combat Range: Start cruise at 38,000 ft. End cruise at 46,000 ft.

