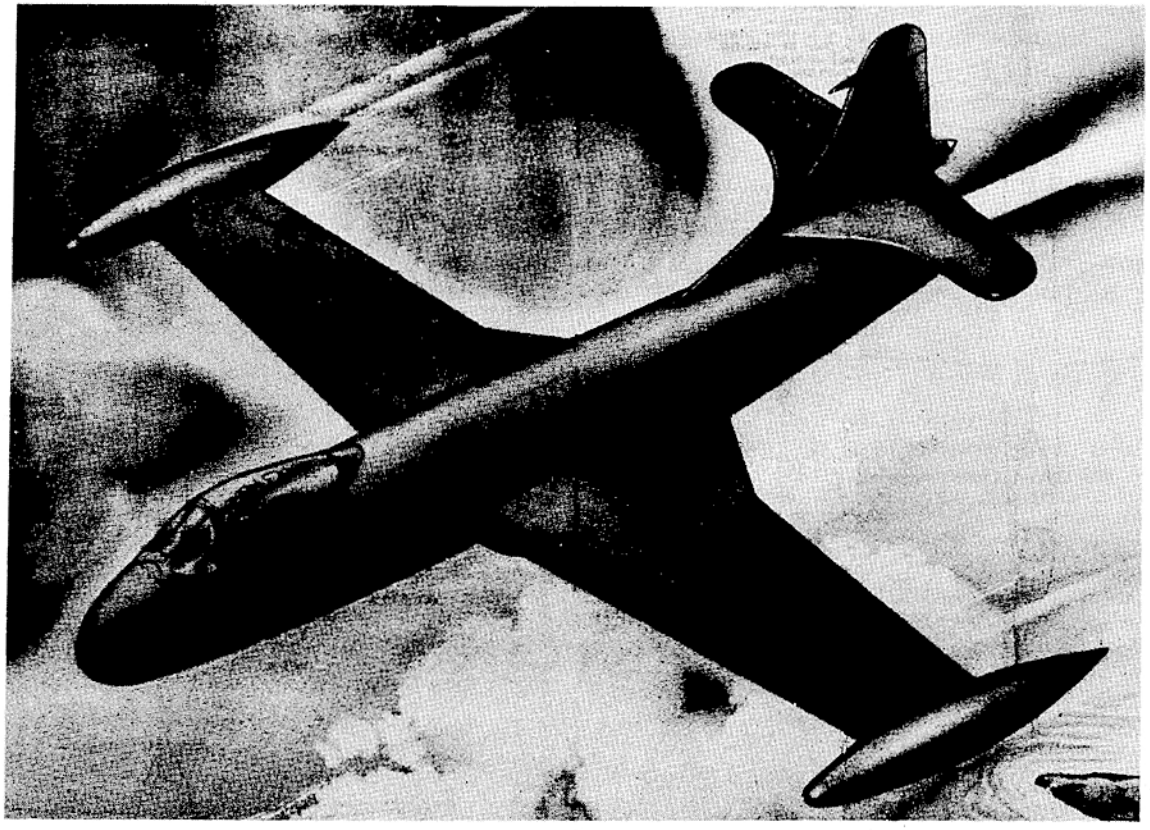
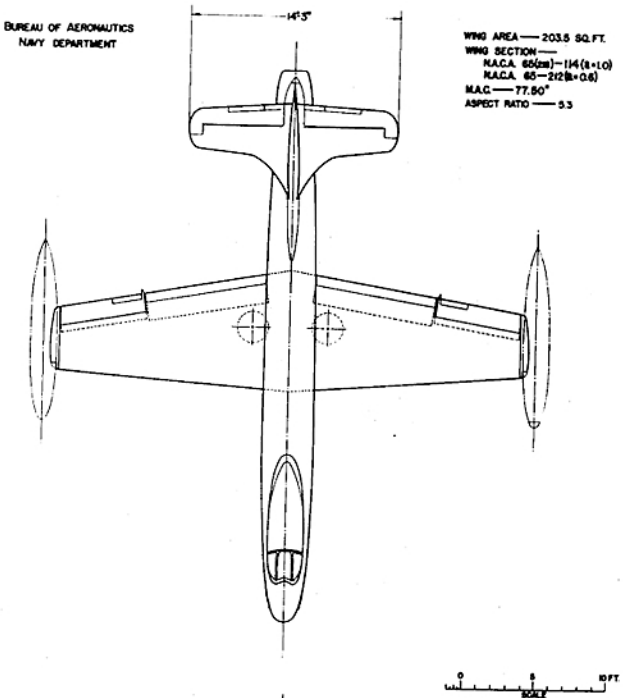


STANDARD AIRCRAFT CHARACTERISTICS

F6U-1 "PIRATE"

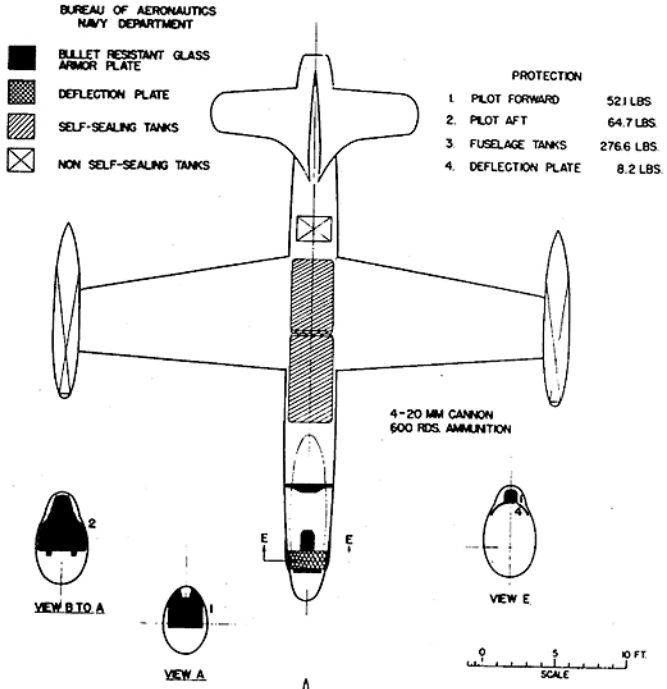
CHANCE VOUGHT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT



ARMAMENT & TANKS

MISSION AND DESCRIPTION

The F6U-1 is a general-purpose fighter, intended for use in escort, combat air patrol, and ground support missions, and also for fighter sweeps.

It is a single-seat, carrier-based aircraft. Fuselage is of conventional structure, with stainless steel construction around afterburner and tail-pipe. Cabin is pressurized. Wing structure employs metalite skin (dural-balsa-dural sandwich) approximately 1/4" thick, over conventional spar and rib structure.

Tail surfaces are conventional except for sandwich-type skin on fin. Slotted extensible wing flaps are fitted, and fuselage speed retarding brakes are provided.

WEIGHTS

Loading	Lbs.	L.F.
EMPTY	7,320	
BASIC	7,931	
DESIGN	10,500	7.5
COMBAT	11,060	7.0
MAX.T.O.	*12,900	6.0
MAX.LAND	9,300	

*Limited by structure in catapulting.

All weights calculated.

POWER PLANT

NO. & MODEL.....(1) J34-WE-30A
MFGR.....Westinghouse
AFTERBURNER.....A-103B
A.B.MFGR.....Solar

RATINGS

	Lbs.	@ Rpm	@ Alt.
T.O.(AB)	4,100	12,500	SSL
MIL.	3,150	12,500	SSL
COMB.(AB)	4,100	12,500	SSL
NORMAL	2,640	11,800	SSL

SPEC. NO. WAGT-24C4C-2

FUEL AND OIL

Gals.	No. Tanks	Location
420	2	Fuse.,Seal.
280	2	Wing Tips

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

OIL

CAPACITY (Gals.).....5
GRADE.....1010
SPEC.....AN-O-9

ORDNANCE

GUNS

No.	Size	Location	Rds.
4	20 mm	Nose	600

(Space provision for 800 rds.)

FIRE CONTROL

Aircraft Fire Control System..Mk. 6, Mod.1

DIMENSIONS

SPAN.....32'-10"
LENGTH.....37'-8"
HEIGHT.....12'-11"
TREAD.....12'-6"
WING AREA.....204 sq. ft.
M.A.C.....77.5"

ELECTRONICS

VHF TRANSMITTER.....AN/ARC-1
NAVIGATION.....AN/ARR-2A
AUTO.D.F.....AN/ARN-6
IFF.....AN/APX-1A
RADIO ALTIMETER.....AN/APN-1

PERFORMANCE SUMMARY

LOADING CONDITION		(1) Fighter 2-140 Gal. Tip Tanks			
TAKE-OFF WEIGHT	lbs.	12,874			
Fuel Fixed/Drop	lbs.	2,520/1,680			
Bombs	lbs.	None			
Wing/Power Loading (A)	lbs/sq.ft;lbs/bhp.	62.3/-			
Stall Speed--Power off	kn.	104.7			
Stall Speed--Power off - No Fuel	kn.	86.0			
Stall Speed--Power on	kn.	98			
Maximum Speed/Alt (B)	kn/ft.	400/18,000			
Take-off Distance, deck -- calm	ft.	1,805(2,905)			
Take-off Distance, deck 25 kn.	ft.	1,035(1,670)			
Take-off Distance, Airport	ft.				
Rate of climb -- sea level (B)	ft/min.	1,855			
Service Ceiling (B)	ft.	30,000			
Time-to-climb 20,000 ft. (B)	min.	17.2			
Time-to-climb 30,000 ft. (B)	min.	50.2			
Combat Range/V avClimbCruise	ft. n.mi/kn.	1,015/375			
Combat Radius/V av	ft. n.mi/kn.	390/375			
LOADING CONDITION		(2) Combat	(3) Combat		
GROSS WEIGHT	lbs.	11,060	11,060		
Engine power		Combat	Normal		
Fuel	lbs.	2,520	2,520		
Bombs/Tanks		None	None		
Max. speed at sea level	kn.	518	395		
Max. speed/Alt	kn/ft.	518/S.L.	429/22,000		
Combat speed/Alt	kn/ft.	478/31,000	423/31,000		
Rate of climb SL	ft/min.	8,060	2,385		
Ceiling for 500 fpm R/C	ft.	46,300	29,000		
Time-to-climb/Alt.	min/ft.	5.4/30,000	24.9/30,000		

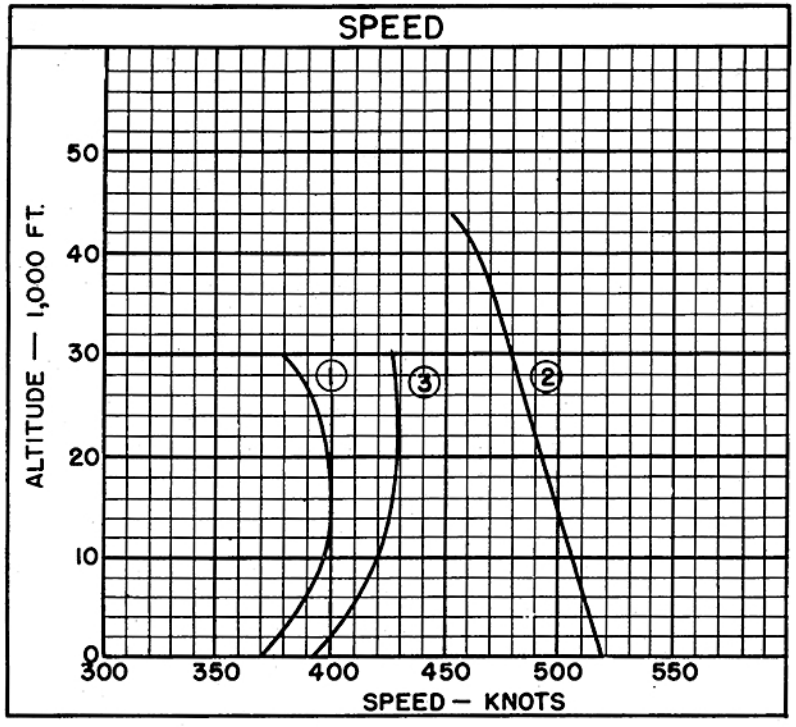
NOTES

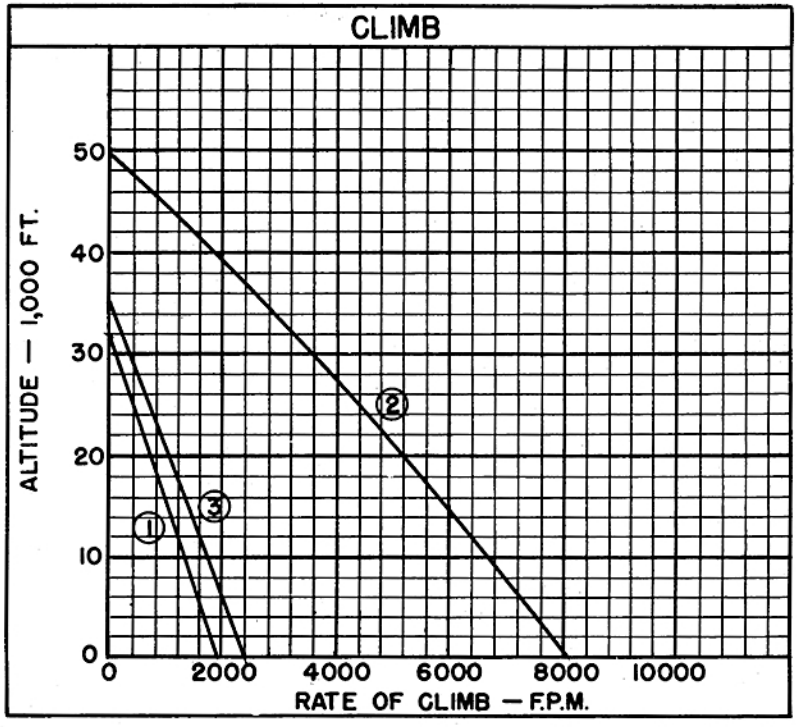
(A) BHP at Maximum Critical Altitude
(B) Normal BHP

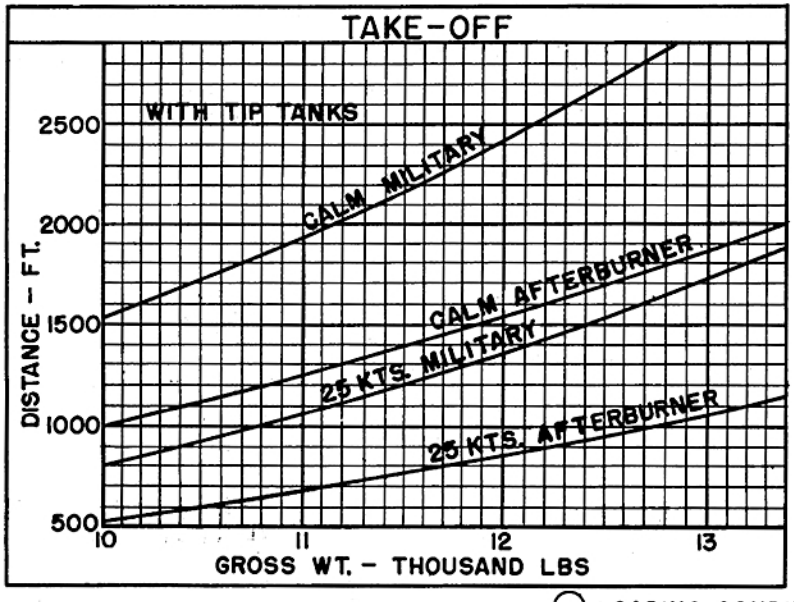
Performance is based on calculations. Range and radius are based on engine specification fuel consumption increased by 5%.

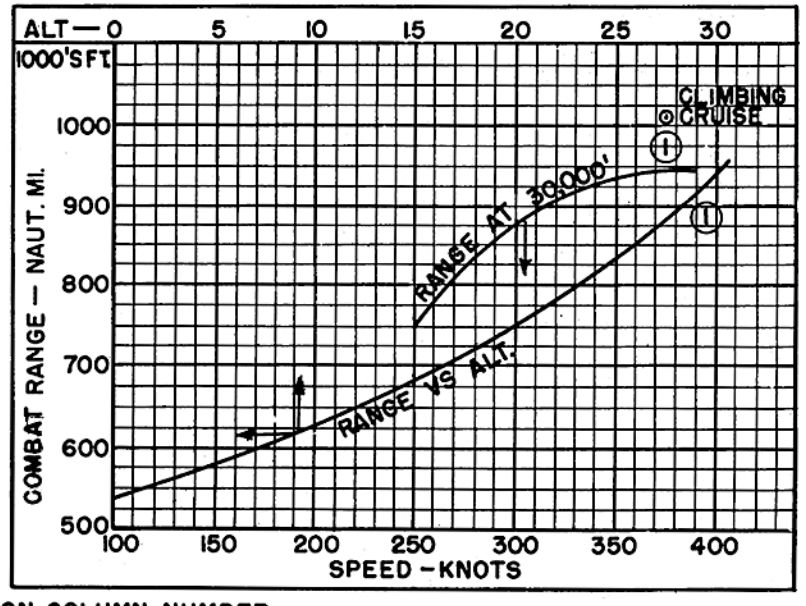
Normal take-off is by catapulting. Take-off figures in parentheses are for military power (afterburner inoperative); others are with take-off power (afterburner operating).

Standard Aircraft Characteristics NAVAER 1335D (REV. 1-49)









◯ LOADING CONDITION COLUMN NUMBER

NOTES

Spotting: 200 ft. length is required to spot 38 airplanes of the 96 ft. wide deck immediately aft of the forward ramp on CV-9 class carriers.

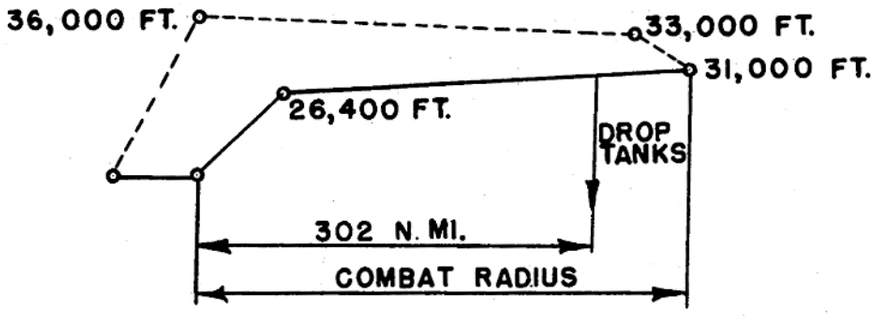
ESCORT FIGHTER COMBAT RADIUS PROBLEM NO. F-5 (Gas Turbine Engine)

WARM-UP TAXI TAKE-OFF	CLIMB (A)	CRUISE-OUT	DESCEND	COMBAT	CLIMB (B)	CRUISE-BACK	RESERVE
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) DROP TANKS 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.

COMBAT RADIUS = CLIMB (A) + CRUISE-OUT = CRUISE-BACK + CLIMB (B)

Combat range is flown in climbing cruise. Starting altitude 26,400 feet; tanks dropped at 28,000 feet, 302 n. mi. from take-off. Climb to 30,400 feet. End cruise at 36,000 feet.

Combat radius altitudes are as below:



Standard Aircraft Characteristics NAVAER 1335F (REV. 1-49)