

DECLASSIFIED

SERVICE



STANDARD AIRCRAFT CHARACTERISTICS

F7U-3P "CUTLASS"

CHANCE VUGHT

640601-585

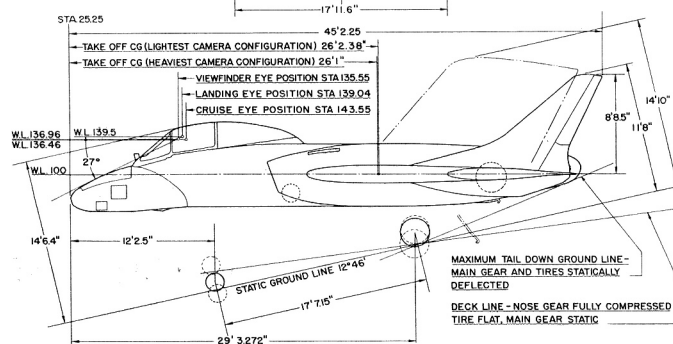
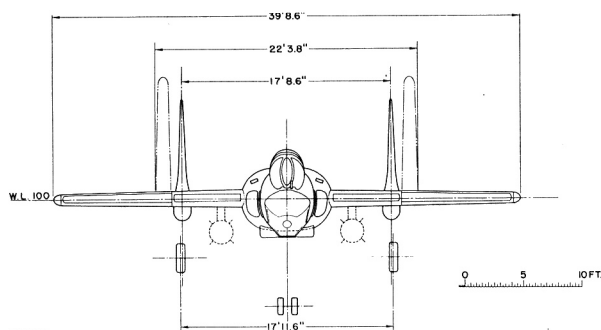
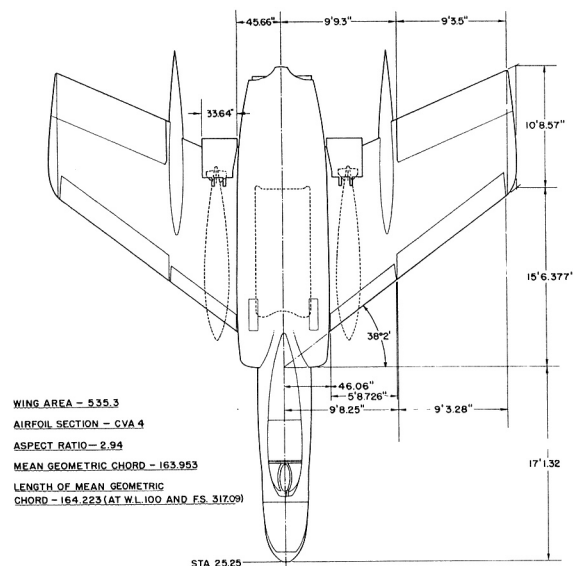
Standard Aircraft Characteristics NAVAER 1335A (REV. 1-55)

15 MAY 1955

DECLASSIFIED

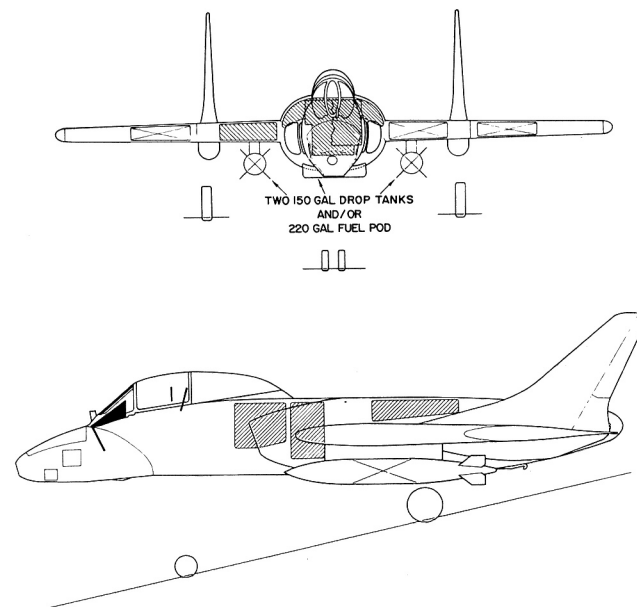
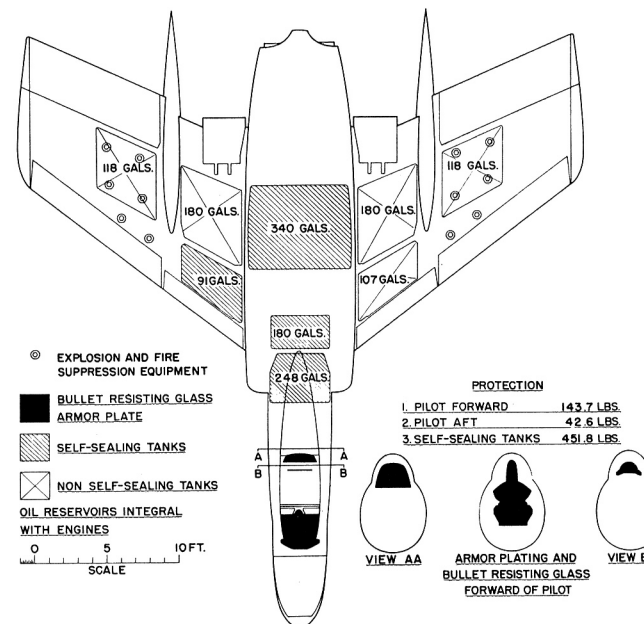
F7U-3P

DECLASSIFIED



DESCRIPTIVE ARRANGEMENT

ARMOR & TANKS



Standard Aircraft Characteristics NAVAR 1335B (Rev. 1-55)

34

DECLASSIFIED

DECLASSIFIED

SERVICE

POWER PLANT

NO. & MODEL.....(2) J46-WE-3B
MFR.....Westinghouse
AFTERBURNER.....Integral
TYPE.....12-Stage Axial Compr.
2 Stage Turbine
LENGTH.....200"
DIAMETER.....29"

RATINGS

	LBS	@	RPM	@	ALT.
MAXIMUM	5,725		10,100		S.S.L.
MILITARY	4,020		10,100		S.S.L.
NORMAL	3,620		10,100		S.S.L.

SPEC. NO. WAGT-24C10-14,

MISSION AND DESCRIPTION

The F7U-3P is a carrier-based, single-place photographic airplane. Its primary mission is reconnaissance.

Longitudinal and lateral control is provided by ailerators which combine the functions of elevators and ailerons. Full-span retractable slats in the leading edge of the wing are used in take-off and landing. Split-flap type speed brakes are located on the center section trailing edge of the wing. The main gear and nose gear retract into the fin stubs and fuselage, respectively. The cockpit is pressurized and is equipped with a pilot ejection seat.

Each of two wing center section pylons has provisions for carrying a 150 gallon drop tank. A 220 gallon fuel pod may be carried on the fuselage centerline.

DEVELOPMENT

First flight.....September 1954

WEIGHTS

LOADINGS	LBS	L.F.
EMPTY.....	18,698	
BASIC.....	19,365	
DESIGN.....	24,068	7.5
COMBAT.....	25,767	7.0
MAX. TAKE-OFF*..	35,000	
MAX. LANDING (Arrest).....	23,500	

All weights are estimated.

* Maximum Anticipated Weight.

FUEL AND OIL

No. Tanks	Tot. Gal.	Location
3	768	Fuselage, S.S.
1	91	Wing, S.S.
9	703	Wing, Bladder
2	300	Wing, Drop
1	220	Fuselage, Pod

FUEL GRADE.....JP-4
FUEL SPEC. MIL-F-5624

OIL

CAPACITY (Gals.).....6.5
SFEC.....MIL-L-7808

EQUIPMENT

No.	Description	Location
1	Camera, K-37	Fuselage
1	Camera, P-2	Fuselage
2	Photoflash Cartridge Ejectors, B-4	Fuselage
40	Photoflash Cartridges M-123	Fuselage

DIMENSIONS

WING
AREA.....535 sq. ft.
SPAN.....39' -9"
MAC.....13' -8"
SWEEPBACK ($\frac{1}{4}$ chord).....35°
LENGTH.....45' -2"
HEIGHT.....14' -7"
TREAD.....18' -0"

ELECTRONICS

UHF COMM.....AN/ARC-27A
RADIO ALTIMETER.....AN/AFN-22
NAVIGATION RADIO.....AN/ARR-2A
RADIO COMPASS.....AN/ARN-6
IFF.....AN/AFK-6B
CODER GROUP.....AN/AFK-39
AN/ARN-21 to replace ARN-6 when
available.

Standard Aircraft Characteristics NAVAR-1335C (Rev. 1-55)

15 MAY 1955

DECLASSIFIED

F7U-3P

DECLASSIFIED

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) BASIC AIRPLANE		(4) BASIC AIRPLANE + TWO 150 GAL DAS TANKS (D)		(7) 220 GAL FUEL POD + TWO 150 GAL DAS TANKS (D)
TAKE-OFF WEIGHT lb.	29,828		32,334		34,064
Fuel lb.	10,153		12,103		13,533
Payload lb.	608		608		608
Wing loading lb./sq.ft.	55.8		60.4		63.7
Stall speed - power-off kn.	115		119		123
Take-off run at S.L. - calm (C) ft.	2,750		3,200		3,600
Take-off run at S.L. 25 kn. wind (C) ft.	1,850		2,200		2,450
Take-off to clear 50 ft. - calm (C) ft.	3,800		4,450		4,950
Max. speed/altitude (A) kn./ft.	470/17,000		418/13,000		403/10,000
Rate of climb at S.L. (B) fpm.	3,520		2,850		2,550
Time: S.L. to 20,000 ft. (B) min.	7.5		10.4		11.8
Time: S.L. to 30,000 ft. (B) min.	15.2		22.4		26.7
Service ceiling (100 fpm) (B) ft.	34,600		29,200		26,500
Combat range n.mi.	775		920		990
Average cruising speed kn.	450		450		435
Cruising altitude(s) ft.	30,300-36,500		24,700-35,500		22,000-34,000
Combat radius n.mi.	200		280		330
Average cruising speed kn.	450		450		450
COMBAT LOADING CONDITION	(2) COMBAT	(3) COMBAT	(5) COMBAT	(6) COMBAT	(8) COMBAT (9) COMBAT
COMBAT WEIGHT lb.	25,767	25,767	27,239	27,239	28,397 28,397
Engine power	Military	Combat	Military	Combat	Military Combat
Fuel lb.	6,092	6,092	7,262	7,262	8,120 8,120
Combat speed/combat altitude kn./ft.	490/32,000	530/32,000	488/30,000	534/30,000	481/28000 534/28000
Rate of climb/combat altitude fpm/ft.	800/32,000	4,400/32,000	750/30,000	4,400/30,000	800/28000 4450/28000
Combat ceiling (500 fpm) ft.	34,700	45,800	32,500	44,600	31,000 43,500
Rate of climb at S.L. fpm.	4,250	10,700	3,900	9,900	3,670 9,300
Max. speed at S.L. kn.	504	589	498	585	486 579
Max. speed/altitude kn./ft.	515/15,000	589/S.L.	511/15,000	585/S.L.	498/15000 579/S.L.
LANDING WEIGHT lb.	22,563		22,992		23,409
Fuel lb.	2,888		3,015		3,132
Stall speed - power-off kn.	104		105		106
Stall speed - with approach power kn.	99		100		101

NOTES

(A) Normal Rated Thrust

(B) Military Rated Thrust

(C) Combat Rated Thrust

(D) Tanks dropped when empty

Performance based on Contractor's flight test

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

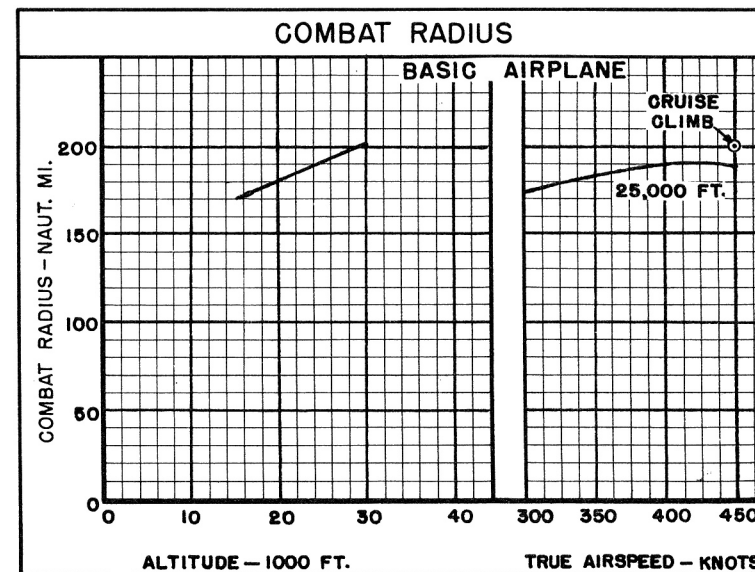
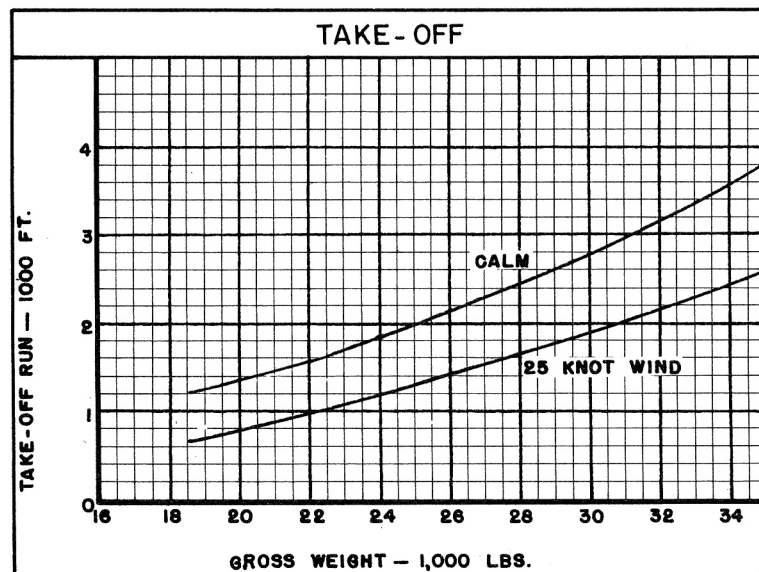
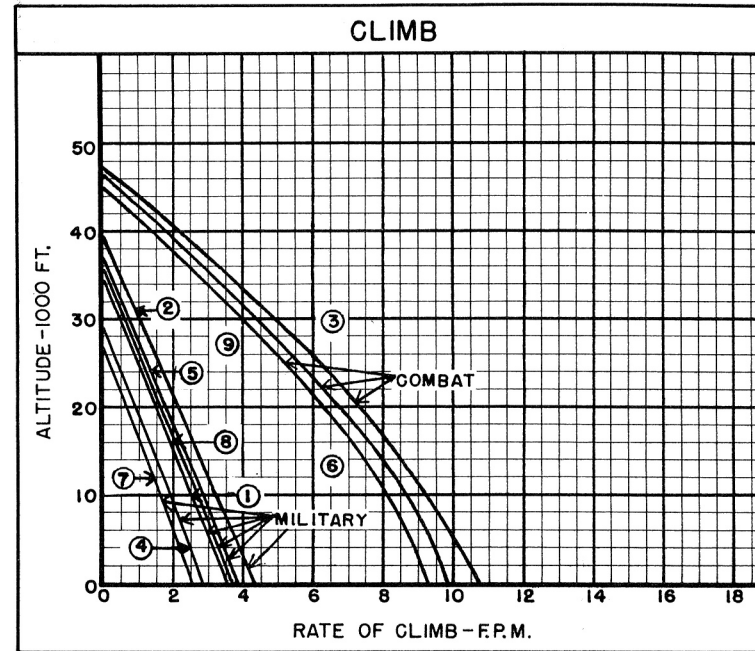
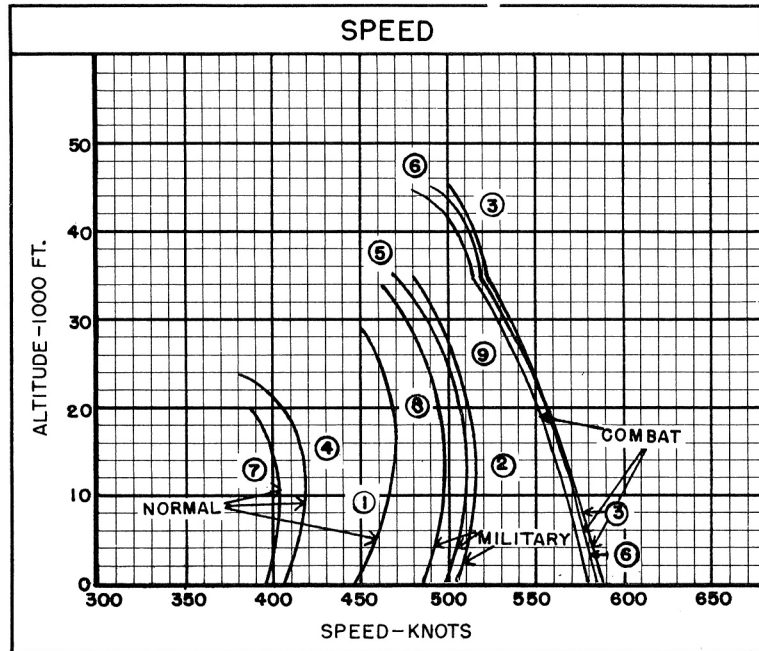
36

NAV AEP-1335D (Rev. 1-55)

DECLASSIFIED

DECLASSIFIED

SERVICE



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1335E (Rev. 1-55)

15 MAY 1955

DECLASSIFIED

F7U-3P

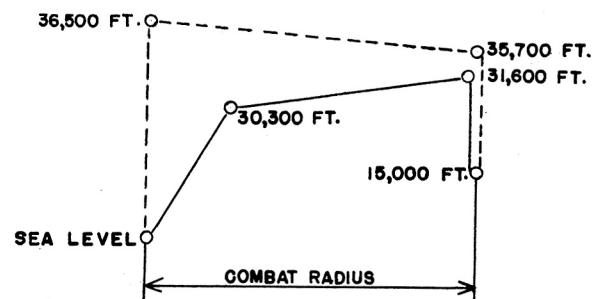
DECLASSIFIED

SERVICE

NOTES

RADIUS PROBLEM

WARM-UP, TAXI, TAKE-OFF: 5 minutes at normal thrust plus 1 minute at combat thrust
 CLIMB: To cruise ceiling at military thrust (cruising ceiling = altitude for 300 ft./min. rate of climb at normal thrust).
 CRUISE-OUT: At V for long range at cruising ceiling
 DESCEND: To 15,000 ft. (no fuel used, no distance gained).
 CRUISE: At 15,000 ft. for 20 minutes at military thrust (no distance gained).
 CLIMB: To cruise ceiling at military thrust.
 CRUISE-BACK: At V for long range at cruise ceiling.
 RESERVE: 5% of initial fuel plus fuel required for 2 engines for 20 minutes at V for maximum endurance at sea level.



38

Standard Aircraft Characteristics NAVAER 1335F (Rev. 1-55)

DECLASSIFIED