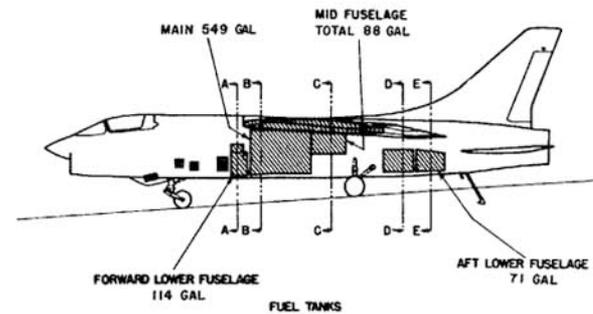
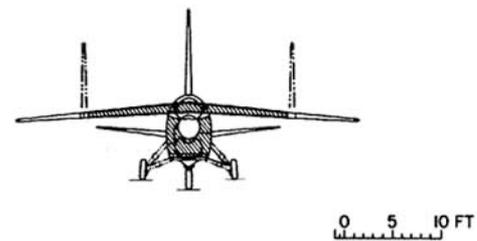
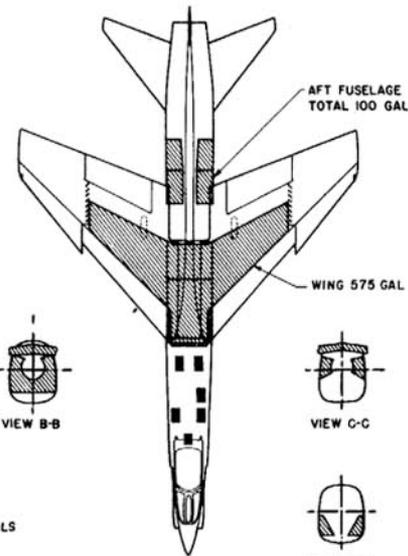
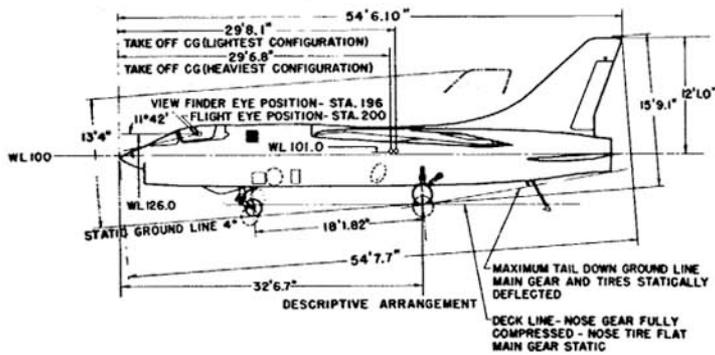
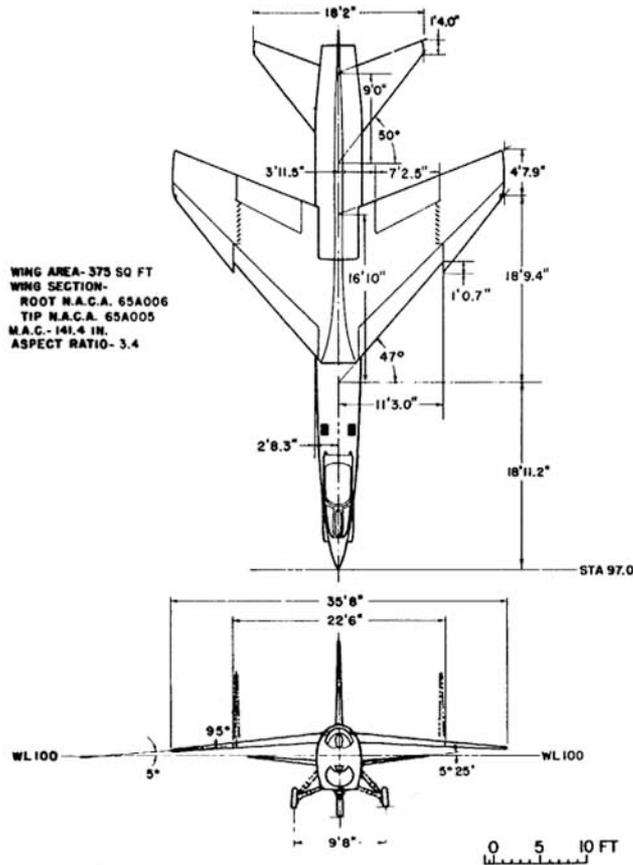


STANDARD AIRCRAFT CHARACTERISTICS

F8U-1P "CRUSADER"

CHANCE VOUGHT

WING AREA- 375 SQ FT
 WING SECTION-
 ROOT N.A.C.A. 65A006
 TIP N.A.C.A. 65A005
 M.A.C.- 141.4 IN.
 ASPECT RATIO- 3.4



Standard Aircraft Characteristics NAVJEP 1339B (Rev. 1-55)

POWER PLANT

No. & MODEL J57-P-4
 MFR..... PRATT AND WHITNEY
 TYPE AXIAL FLOW
 LENGTH 250"
 DIAMETER 41"
 AUGMENTATION ... AFTERBURNING

RATINGS

	LBS	@	RPM	@	ALT
MIL+AB	16000		6100		S.S.L.
MIL	10200		6100		S.S.L.
NORM	8700		5780		S.S.L.

ENG. SPEC. NO. P&W N-1669-C

ELECTRONICS

VHF NAVIGATION
 RECEIVER..AN/ARN-14E
 INSTALLATION
 ...AN/ARN-21)
 UHF TRANSMITTER RECEIVER
AN/ARC-27A
 UHF DIRECTION FINDER
AN/ARA-25
 IFF TRANSPONDER.... AN/APX-6B
 CODER AN/APA-89
 RADAR ALTIMETER ... AN/APN-22

MISSION AND DESCRIPTION

THE F8U-1P IS A PHOTOGRAPHIC RECONNAISSANCE AIRPLANE. IT IS DESIGNED TO FLY GENERAL DAY RECONNAISSANCE MISSIONS, SPECIAL MISSIONS FOR BEACH AND AMPHIBIOUS MAPPING AND CHARTING, AND NIGHT RECONNAISSANCE.

THE F8U-1P IS SIMILAR TO THE F8U-1 FIGHTER VERSION EXCEPT FOR (1) FRONT FUSELAGE "COKING" AND FLATS TO FACILITATE THE PHOTOGRAPHIC AND INFLIGHT REFUELING (IFR) EQUIPMENT, (2) THE STRIKE CAMERA FAIRING ON THE BOTTOM CENTERLINE OF THE FUSELAGE AND (3) REMOVAL OF THE GUN BUMPS. THE F8U-1P IS A SINGLE-PLACE SWEEP-WING AIRPLANE HAVING A HIGH VARIABLE INCIDENCE WING AND A LOW UNIT HORIZONTAL TAIL.

DEVELOPMENT

FIRST FLIGHT JANUARY 1957
 SERVICE USE NOVEMBER 1957

DIMENSIONS

WING
 AREA 375 SQ. FT.
 SPAN 35'-8"
 MAC 141"
 SWEEPBACK - $\frac{1}{4}$ CHORD.. 42°
 LENGTH 54'-6"
 HEIGHT 15'-9"
 TREAD 9'-8"

WEIGHTS

LOADINGS	LBS.	L.F.
EMPTY	16,796
BASIC	17,564
DESIGN	24,000	6.4
COMBAT.....	23,752
MAX. T.O. (FIELD) ...	27,822
(CAT) ...	27,822
MAX. LAND. (FIELD) ...	23,500
(ARREST) ...	20,000

FUEL AND OIL

TOTAL GAL.	NO. TANKS	LOCATION
637	3	MAIN FUSELAGE
285	5	AFT FUSELAGE
575	1	WING

FUEL GRADE J P-5
 FUEL SPEC (APPLICABLE).....
 MIL-F-5624

OIL

CAPACITY (GALS.) (USABLE) 4.0
 SPEC (APPLICABLE) MIL-L-7808

CAMERAS

No.	DESCRIPTION	LOCATION
1	CAMERA, KB-10A	FUSELAGE
5	CAMERAS, CAX-12	FUSELAGE
1	SCANNER	FUSELAGE
1	SCANNER- CONVERTER	FUSELAGE

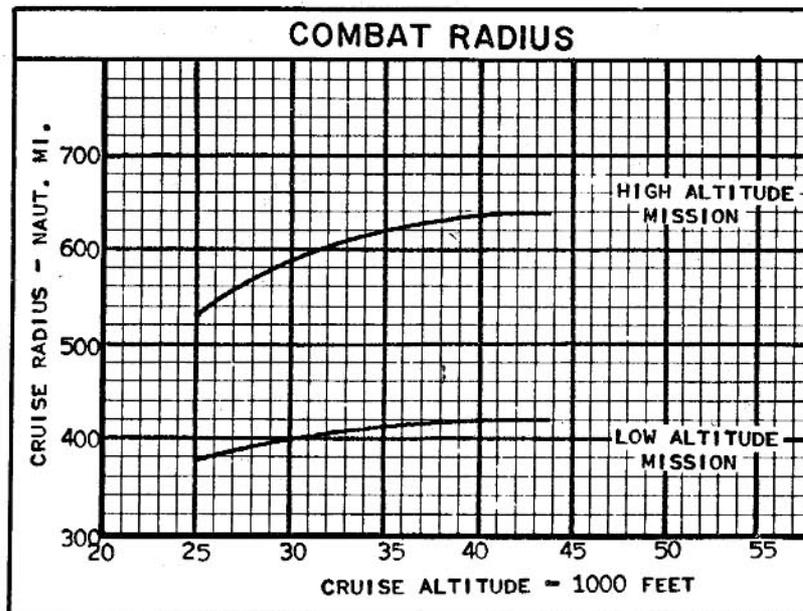
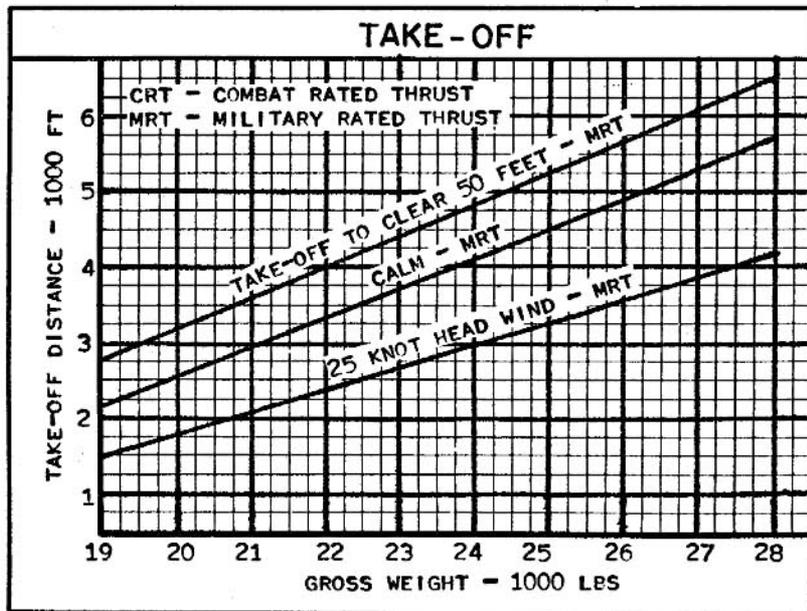
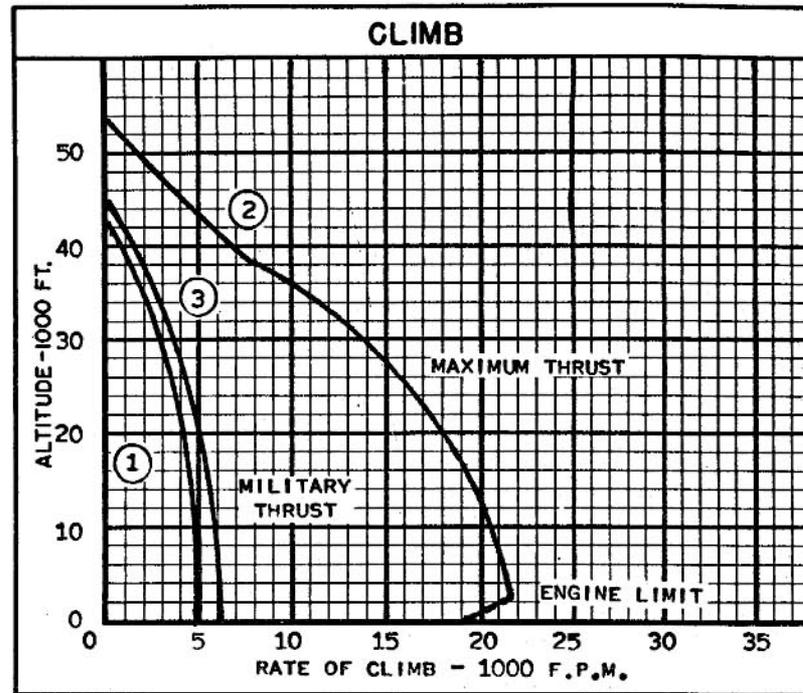
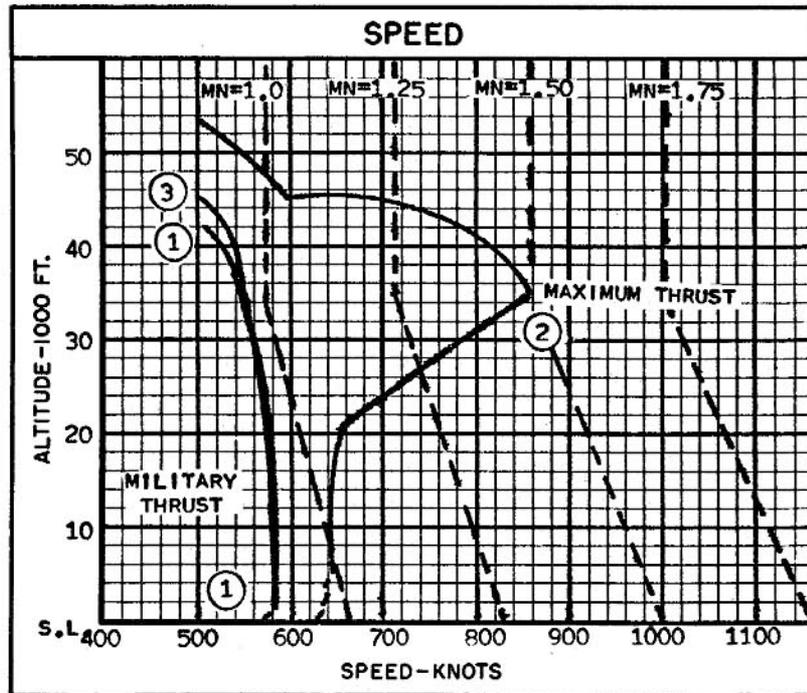
PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) HIGH ALT. PHOTO MISSION	(4) LOW ALT. PHOTO MISSION		
TAKE-OFF WEIGHT lb.	27,822	27,822		
Fuel internal/external (JP-5) lb./lb.	10,176	10,176		
Fayload lb.	520	520		
Wing loading lb./sq.ft.	74.2	74.2		
Stall speed - power-off kn.	137.2	137.2		
Take-off run at S.L. - calm ft.	5,600	5,600		
Take-off run at S.L. 25 kn. wind (A) ft.	4,170	4,170		
Take-off to clear 50 ft. - calm (A) ft.	6,450	6,450		
Max. speed/altitude (A) kn./ft.	585/10,000	585/10,000		
Rate of climb at S.L. (A) fpm.	5050	5050		
Time: S.L. to 20,000ft. (A) min.	4.3	4.3		
Time: S.L. to 30,000ft. (A) min.	7.2	7.2		
Service ceiling (100 fpm) (A) ft.	41,600	41,600		
Combat range n.mi.	1,740	1,740		
Average cruising speed kn.	495	495		
Cruising altitude(s) ft.	42,350	42,350		
Combat radius/Mission time N.MI./HRS.	640/2.84	422/1.86		
Average cruising speed kn.	495	495		
IFR RADIUS/MISSION TIME N.MI./HRS.	1190/5.08(B)	937/4.01		
COMBAT LOADING CONDITION	(2) 60% FUEL	(3) 60% FUEL		
COMBAT WEIGHT lb.	23,752	23,752		
Engine power	MAXIMUM	MILITARY		
Fuel lb.	6,106	6,106		
Combat speed/combat altitude kn./ft.	855/35,000	550/35,000		
Rate of climb/combat altitude fpm/ft.	10,500/35,000	2,870/35,000		
Combat ceiling (500 fpm) ft.	51,800	43,300		
Rate of climb at S.L. fpm.	19,050	6,100		
Max. speed at S.L. kn.	635	576		
Max. speed/altitude kn./ft.	855/35,000	585/6300		
LANDING WEIGHT lb.	19,046			
Fuel lb.	1,400			
Stall speed - power-off/appr. power kn./kn.	111.4/108.0			
Distance - ground roll/over 50 ft. obst. ft./ft.	4,400/5,120			

NOTES

- (A) MILITARY POWER
 (B) INFLIGHT REFUELING - OUTBOUND ONLY
 TRANSFER 5315 LBS AT 755 N.MI. OUT. RADIUS
 IS REDUCED 16 N.MI. AND REFUEL ALLOWANCE
 IS INCREASED BY 5 MINUTES FOR EACH ADDITIONAL
 AIRCRAFT UP TO A TOTAL OF 4 AIRCRAFT.
 PERFORMANCE BASIS: FLIGHT TEST DATA OF F8U-1 MODIFIED
 TO F8U-1P CONFIGURATION

SPOTTING: A TOTAL OF 81 AIRCRAFT CAN BE
 ACCOMMODATED IN A LANDING SPOT ON THE FLIGHT
 AND HANGAR DECKS OF A CVA-19 CLASS ANGLED
 DECK CARRIER (FLIGHT 43; HANGAR 38 AIR-
 PLANES)

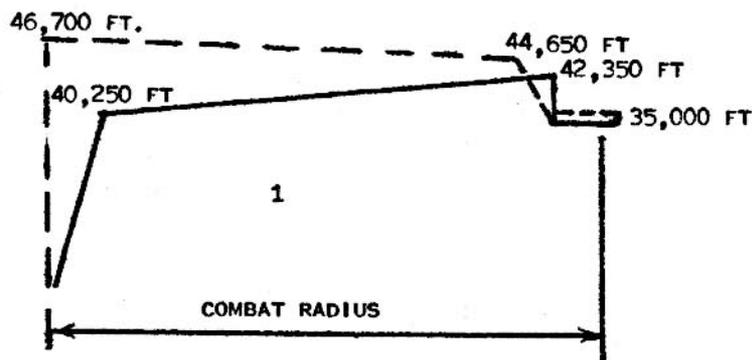


○ LOADING CONDITION COLUMN NUMBER

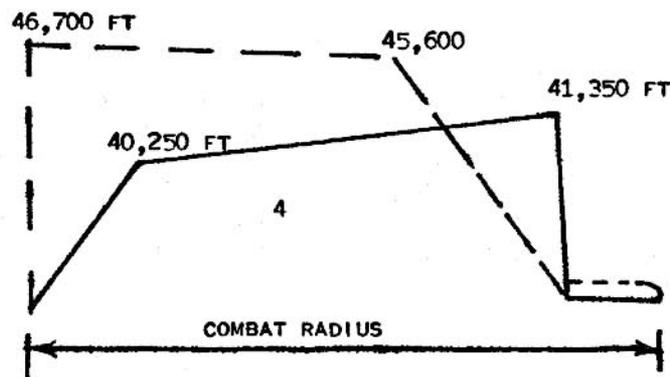
NOTES

HIGH ALTITUDE PHOTOGRAPHIC MISSION

WARM-UP, TAKE-OFF, ACCELERATE: 5 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-OUT: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 DESCEND: TO 35,000 FEET (NO FUEL USED, NO DISTANCE GAINED)
 RUN-IN: AT 35,000 FEET FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 FUEL ALLOWANCE AT TARGET: 12 MINUTES WITH NORMAL RATED THRUST AT 35,000 FEET (NO CREDIT FOR DISTANCE GAINED)
 FUEL ALLOWANCE FOR EVASIVE ACTION: 3 MINUTES AT MAXIMUM THRUST FUEL FLOW AT A SPEED MIDWAY BETWEEN MAXIMUM SPEED WITH MILITARY RATED THRUST AND MAXIMUM SPEED WITH MAXIMUM RATED THRUST AT 35,000 FEET.
 RUN-OUT: AT 35,000 FEET FOR 50 N.MI AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-BACK: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 RESERVE: 20 MINUTES AT SPEED FOR MAXIMUM ENDURANCE AT SEA LEVEL PLUS 5 PERCENT OF INITIAL FUEL LOAD.

LOW ALTITUDE PHOTOGRAPHIC MISSION

WARM-UP, TAKE-OFF, ACCELERATE: 5 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-OUT: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 DESCEND: TO SEA LEVEL (NO FUEL USED, NO DISTANCE GAINED)
 RUN-IN: AT SEA LEVEL FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 FUEL ALLOWANCE AT TARGET: 8 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL. (NO CREDIT FOR DISTANCE GAINED)
 FUEL ALLOWANCE FOR EVASIVE ACTION: 2 MINUTES AT MAXIMUM THRUST FUEL FLOW AT A SPEED MIDWAY BETWEEN MAXIMUM SPEED WITH MILITARY RATED THRUST AND MAXIMUM SPEED WITH MAXIMUM RATED THRUST AT SEA LEVEL.
 RUN-OUT: AT SEA LEVEL FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-BACK: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 RESERVE: 20 MINUTES AT SPEED FOR MAXIMUM ENDURANCE AT SEA LEVEL PLUS 5 PERCENT OF INITIAL FUEL LOAD.



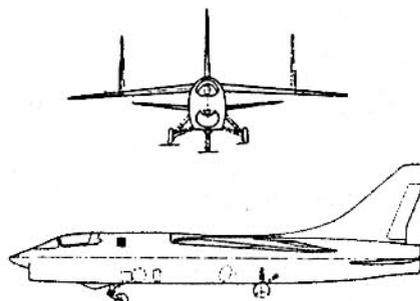
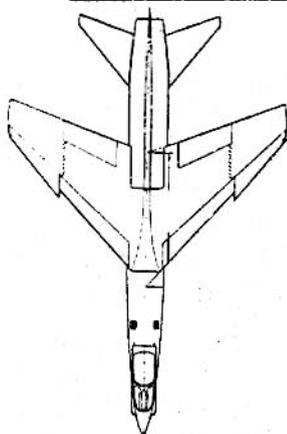
○ LOADING CONDITION COLUMN NUMBER

CHARACTERISTICS SUMMARY

PHOTO. RECONNAISSANCE (HIGH ALT.)

F8U-1P

CHANCE VOUGHT



WING AREA 375 Sq. Ft.
WING SPAN 35' - 8"

LENGTH 54' - 3"
HEIGHT 15' - 9"

AVAILABILITY			PROCUREMENT				
NUMBER AVAILABLE			NUMBER DELIVERED				
			IN FISCAL YEARS				
ACTIVE	RESERVE	TOTAL					

STATUS

First Flight December 1956
Service Use October 1957

ENGINES

(1) Pratt & Whitney
J57-P-4A

	<u>LBS.</u>	<u>ALT.</u>
MAX.	16000	SSL
MIL.	10200	SSL
NORM*	8700	SSL

ENG. SPEC. N-1669C

FEATURES

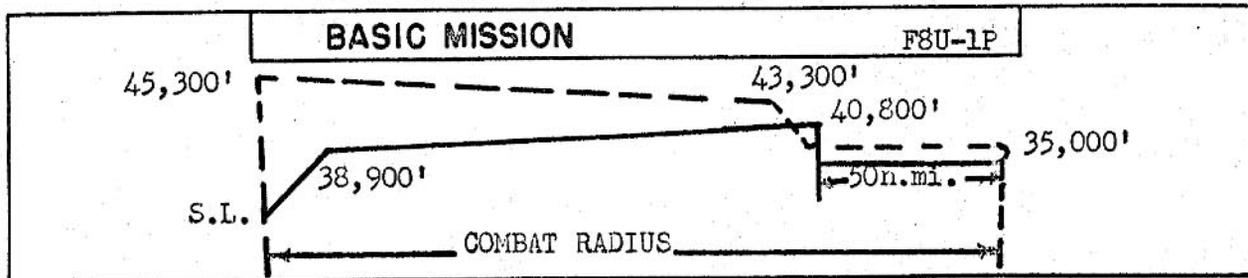
Crew - 1
Variable Incidence
Wing
Full Span Leading Edge
Droop
In-Flight Refueling

ARMAMENT

Typical Day
Reconnaissance

<u>No.</u>	<u>Description</u>
1	Camera, CAX-2
5	Cameras, CAX-12
1	Scanner
1	Scanner Converter

CHARACTERISTICS SUMMARY



PERFORMANCE		
COMBAT RADIUS	COMBAT RANGE	SPEED
650 naut. mi.	-- naut. mi.	635 knots at Sea Level
491 knots avg.	-- knots avg.	845 knots at 35,000 ft.
2.87 hrs. mission time	hours	815 knots at 40,000ft.
		Combat Weight Combat Power
CLIMB	CEILING	TAKE OFF
4150 ft./min.	41,900 ft.	4,350 ft. calm No Assist
Sea Level, T. O. wt. Military Power	100 ft./min., T. O. wt. Military Power	
S.L. - 19,900 ft./min.	51,200 ft.	3100 ft., 25 kt. wind No Assist
Combat Wt., Combat Power	500 ft./min., Combat Wt. Combat Power	
LOAD	WEIGHTS	STALLING SPEED
Fuel 1,496 gal.	Empty 17,061 lbs.	136.5 knots Power Off
fixed 1,496 drop	Combat 24,021 lbs.	Flaps down, T. O. wt.
JP-5 Fuel	Take-off 28,091 lbs.	TIME TO CLIMB
		40,000 ft. in 2.8 min.
		Combat Wt., Max. Power

NOTES

PERFORMANCE BASIS: Calculations and Flight test data
 Range and Radius are based on flight test Fuel consumption
 When JP-4 fuel is used radius decreases 50 n.mi., and Mission time decreases .2 hours.