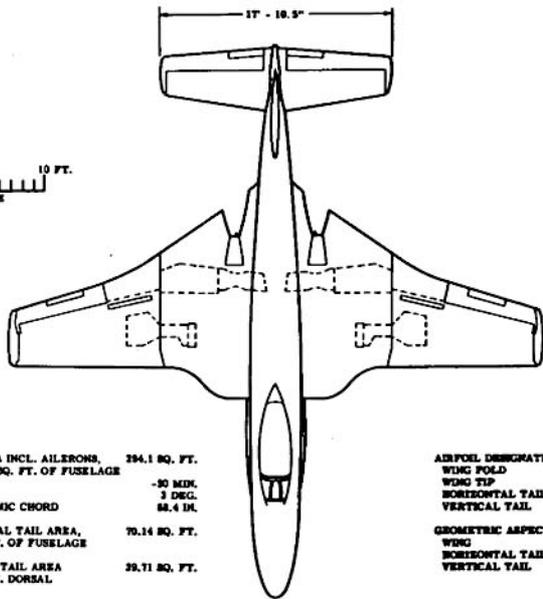


STANDARD AIRCRAFT CHARACTERISTICS

F2H-3 "BANSHEE"

MCDONNELL



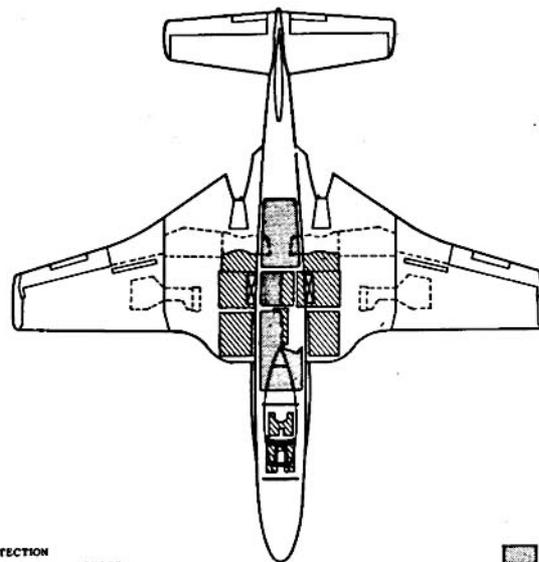
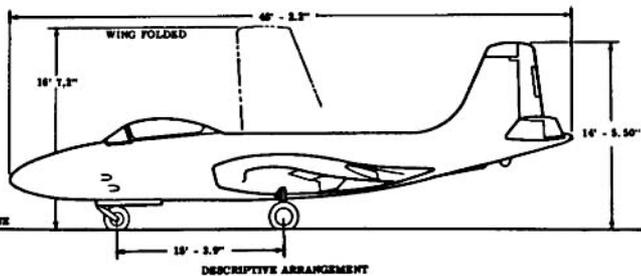
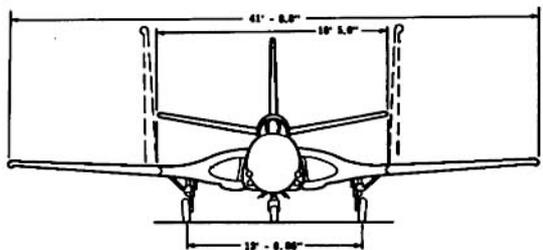
TOTAL WING AREA INCL.AILERONS, 294.1 SQ. FT.
FLAPS AND 23.7 SQ. FT. OF FUSELAGE
INCIDENCE -30 MDK.
DIEDRAL 3 DEG.
MEAN AERODYNAMIC CHORD 88.4 IN.

TOTAL HORIZONTAL TAIL AREA, 70.14 SQ. FT.
INCL. 3.82 SQ. FT. OF FUSELAGE

TOTAL VERTICAL TAIL AREA 29.71 SQ. FT.
INCL. 1.83 SQ. FT. DORSAL

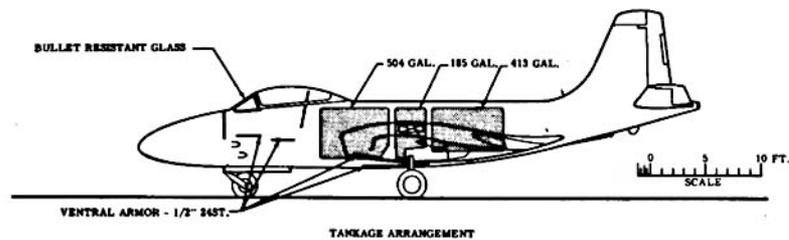
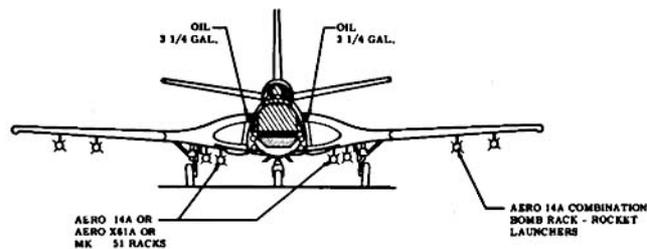
AIRFOIL DESIGNATION
WING FOLD NACA-65A-212
WING TIP NACA-63A-309
HORIZONTAL TAIL NACA-65-009
VERTICAL TAIL NACA-65-009

GEOMETRIC ASPECT RATIO
WING 5.83
HORIZONTAL TAIL 4.5
VERTICAL TAIL 1.1



PROTECTION
PILOT FORWARD 79 LBS.
PILOT AFT 48
VENTRAL 432 LBS.
SELF-SEALING FUEL CELLS 643 LBS.

----- FUEL TANK
----- OIL TANK
----- ARMOR



POWER PLANT

NO. & MODEL.....(2) J34-WE-34
 MFR.....Westinghouse
 TYPE.....11 Stg. Axial Compr.
 2 Stg. Turbine
 ENG. LENGTH.....120"
 ENG. DIAMETER.....50"

RATINGS

	Lbs.	Rpm	Alt.
T. O.	3,250	12,500	S.S.L.
MIL.	3,250	12,500	S.S.L.
NORM.	2,650	11,800	S.S.L.

SPEC. NO. WAGT-24C4D-2C

ORDNANCE

GUNS			
No.	Size	Location	Rds.
4	20mm(Mk.16)	Nose	600

FIRE CONTROL

A.F.C.S.....Mk. 6 Mod. 0

BOMBS AND ROCKETS

Type	Size	Location	No.
Bombs	100#	Wings	8
Bombs	250#	Wings	8
Bombs	500#	Wings	2
HVAR	5"	Wings	8
HPAG	5"	Wings	8

2 - Mk. 51-11 Bomb Racks
 8 - Aero 14A Combination Bomb
 Rack and Rocket Launchers

Any combination of above not
 to exceed 3,200 pounds.

MISSION AND DESCRIPTION

The F2H-3 airplane is a single place all weather fighter designed for either land or carrier based operations.

The airframe is of stressed metal skin construction with all surfaces being of the full cantilever type.

Equipment includes an APQ-41 radar, automatic pilot, ejection seat, and cockpit pressurization. The primary control system incorporates power actuation with artificial feel forces for the aileron and elevator. Split type trailing edge flaps and wing mounted speed brakes are provided. The F2H-3 is designed for carrier operations without tip tanks. Its internal fuel capacity has been increased by 225 gallons over that of the F2H-2.

Mock-up date — October 1950
 First flight (prototype) — December 1951
 Service use to start — August 1952

DIMENSIONS

WING AREA.....	294 sq. ft.
SPAN.....	41' - 9"
LENGTH.....	48' - 2"
HEIGHT.....	14' - 6"
TREAD.....	13' - 7"
M.A.C.....	7' - 4"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	13,183
BASIC.....	13,780
DESIGN.....	18,600	7.5
COMBAT.....	18,367	7.6
MAX.T.O..(Field).	25,214	5.5
(Cat.).	25,214
MAX.LAND.(Field).	19,200
(Arrest.).	16,700

All weights are calculated.

* Maximum Anticipated Loading

FUEL AND OIL

Gals.	No. Tanks	Location
1,102	3	Fuse., S.S.
340	2	Wing, Drop
FUEL GRADE.....115/145		
FUEL SPEC....MIL-F-5572		

OIL

CAPACITY (Gals.).....	6.5
GRADE.....	1010
SPEC.....	MIL-O-6081

ELECTRONICS

WHF COMMAND....AN/ARC-1 or -1A
 (Installation Provisions Only)
 WHF COMMAND.....AN/ARC-27
 HOMING.....AN/ARR-2A
 WHF D.F.....AN/ARA-25
 ALTIMETER.....AN/APN-1
 ADF.....AN/ARN-6
 HOMING.....AN/ARN-21
 (P.S.I., Repl. for AN/ARR-2A
 and AN/ARN-6)
 SEARCH RADAR.....AN/APQ-41
 (250 aircraft only)
 (See NOTES)

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) FIGHTER Full Internal Fuel	(3) FIGHTER 2 - 170 Gallon Tanks	(5) GRD. SUPPORT 2-170 Gal. Tanks 4-5" HVAR Rock. 4-250 lb. Bombs
TAKE-OFF WEIGHT lb.	21,013	23,507	25,214
Fuel (Fixed/Drop) lb.	6,612/-	6,612/2,040	6,612/2,040
Payload (Ammunition, Rockets, Bombs) lb.	337	337	337/1,580
Wing loading lb./sq.ft.	71.5	80.0	85.8
Stall speed - power-off kn.	115	122	127
Take-off run at S.L. - calm ft.	2,490	3,210	3,800
Take-off run at S.L. 25 kn. wind ft.	1,560	2,100	2,470
Take-off to clear 50 ft. - calm ft.	--	--	--
Max. speed/altitude (A) kn./ft.	470/S.L.	454/S.L.	381/30,000
Rate of climb at S.L. fpm (B)	5,150	(A) 3,200	(A) 2,360
Time: S.L. to 20,000 ft. min. (B)	4.6	(A) 7.9	(A) 12.6
Time: S.L. to 30,000 ft. min. (B)	8.2	(A) 14.4	(A) 39.0
Service ceiling (100 fpm) ft. (B)	47,000	(A) 41,300	(A) 30,500
Combat range n.mi.	1,015	1,490	955
Average cruising speed kn.	400	385	390
Cruising altitude(s) ft.	40,000	40,000	30,000/35,000
Combat radius n.mi.	415	625	330
Average cruising speed kn.	430	435	400
COMBAT LOADING CONDITION	(2) CLEAN	(4) CLEAN	
COMBAT WEIGHT lb.	18,367	21,013	
Engine power	Military	Military	
Fuel lb.	3,966	6,612	
Combat speed/combat altitude kn./ft.	455/35,000	450/35,000	
Rate of climb/combat altitude fpm/ft.	2,300/35,000	1,800/35,000	
Combat ceiling (500 fpm) ft.	46,600	45,000	
Rate of climb at S.L. fpm	6,000	5,150	
Max. speed at S.L. kn.	503	500	
Max. speed/altitude kn./ft.	503/S.L.	500/S.L.	
LANDING WEIGHT lb.	15,672	15,797	
Fuel lb.	1,271	1,382	
Stall speed - power-off kn.	99	99	
Stall speed - with approach power kn.	94	94	

NOTES

(A) Normal Power

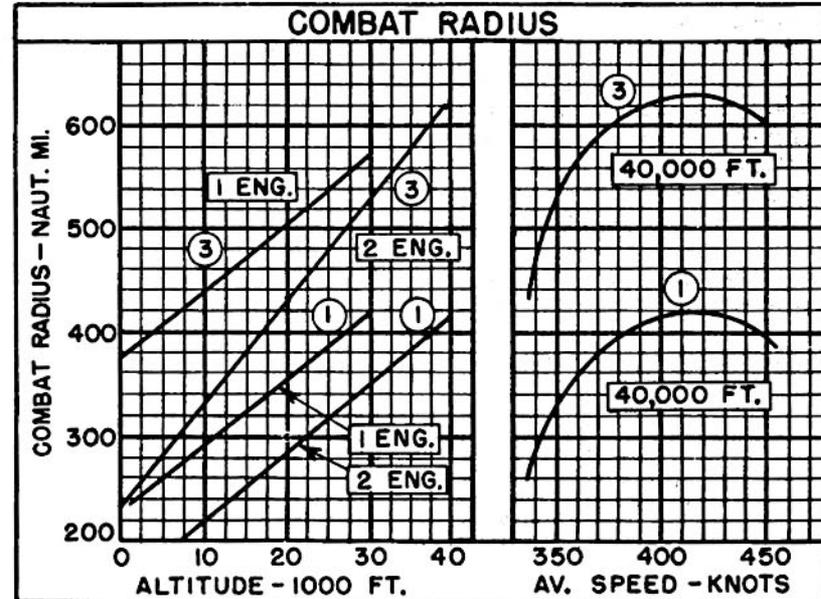
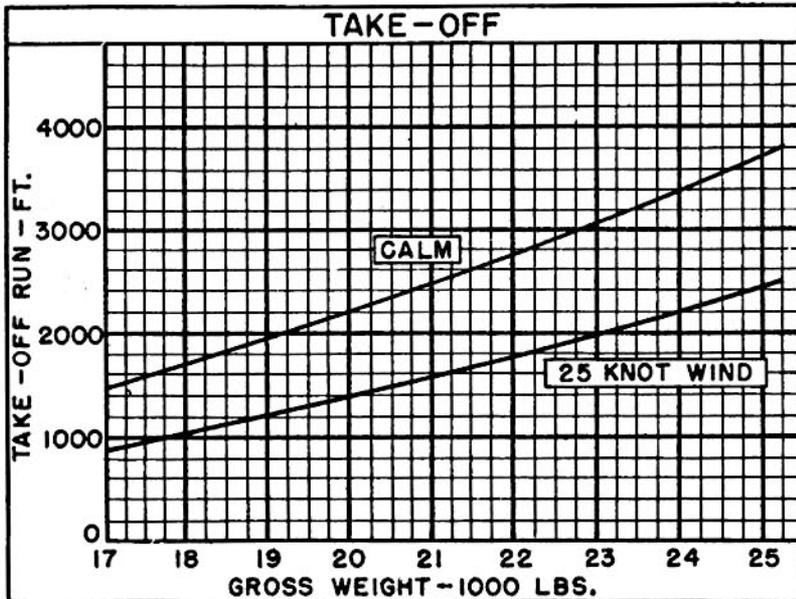
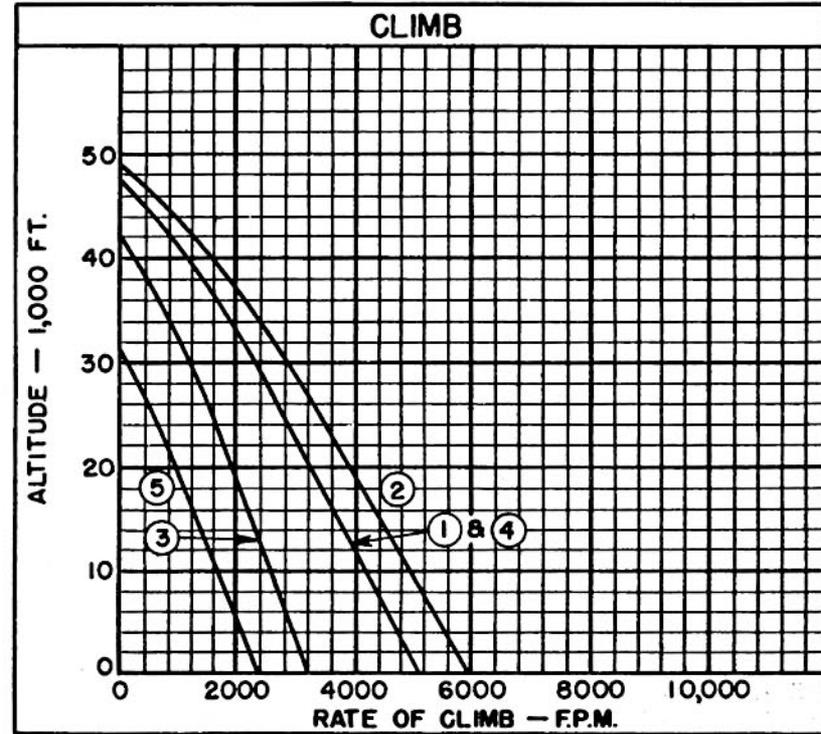
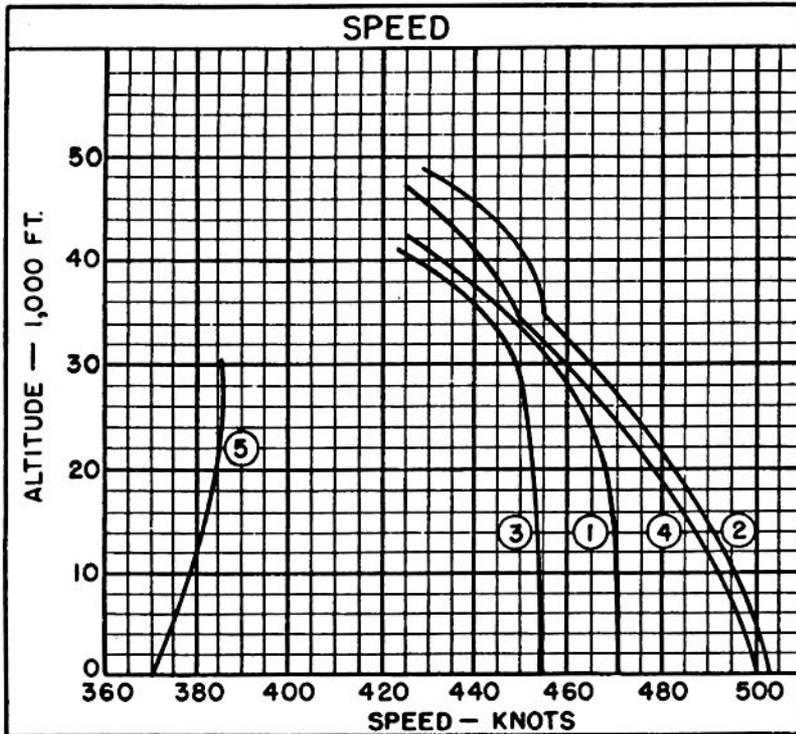
(B) Military Power

 Performance is based on calculations and NATC flight test of the F2H-2 airplane.

Range and radius are based on flight test fuel consumption increased by 5%.

Spotting: 200 ft. length is required to spot 24 airplanes (wings folded) on the 96 ft. wide deck immediately aft of the forward ramp on the CV-9 class carriers.

Standard Aircraft Characteristics NAVAER 1335E (REV. 2-50)



○ LOADING CONDITION COLUMN NUMBER

NOTES

GENERAL PURPOSE AND ESCORT FIGHTER COMBAT RADIUS PROBLEM (GAS TURBINE)

WARM-UP, TAXI, TAKE-OFF: 5 minutes at normal power.

CLIMB: To 40,000 feet at military power.

CRUISE-OUT: At V for long range at 40,000 feet. External tanks dropped when empty.

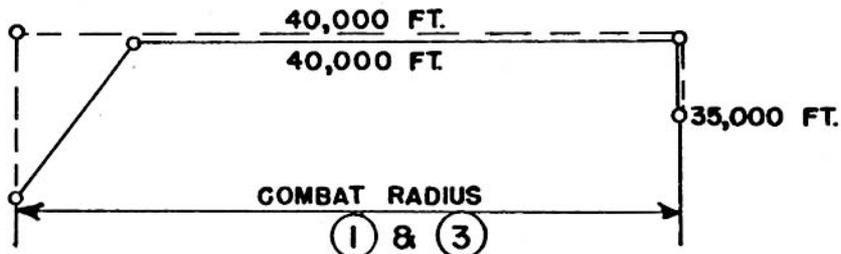
DESCEND: To 35,000 feet. (No fuel used, no distance gained.)

COMBAT: At 35,000 feet for 20 minutes at military power. (Assume combat concluded at cruise-back altitude.)

CRUISE-BACK: At V for long range at 40,000 feet.

RESERVE: 20 minutes at V for maximum endurance at sea level plus 5% of initial fuel load.

$$\text{COMBAT RADIUS} = \text{CLIMB} + \text{CRUISE-OUT} = \text{CRUISE-BACK}$$



GROUND SUPPORT FIGHTER COMBAT RADIUS PROBLEM (GAS TURBINE)

WARM-UP, TAXI, TAKE-OFF: 5 minutes at normal power.

CLIMB: To altitude for maximum radius (30,000 feet) at normal power.

CRUISE-OUT: At V for long range at 30,000 feet. External tanks dropped when empty.

DESCEND: To sea level. (No fuel used, no distance gained.)

LOITER: 10 minutes at V for maximum endurance at sea level.

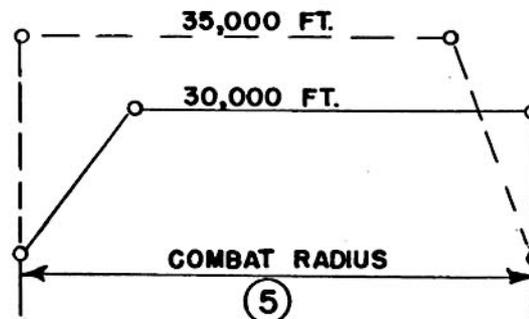
DROP BOMBS AND FIRE EXTERNAL ROCKETS

COMBAT: At sea level for 10 minutes at military power.

CLIMB: To altitude for maximum radius (35,000 feet) at normal power.

CRUISE-BACK: At V for long range at 35,000 feet.

RESERVE: 20 minutes at V for maximum endurance at sea level plus 5% of initial fuel load.



The F2H-4 airplane is the same as the F2H-3 airplane but carries AN/APG-37 radar instead of AN/APQ-41 radar. Weight and performance of the two airplanes are the same.

ELECTRONICS (Continued)

RADAR.....AN/APG-37
(150 aircraft only)

IFF.....AN/APX-6

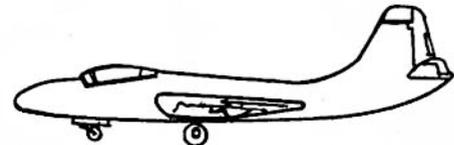
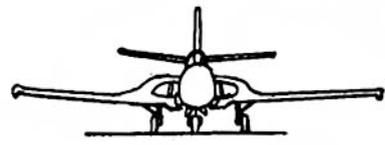
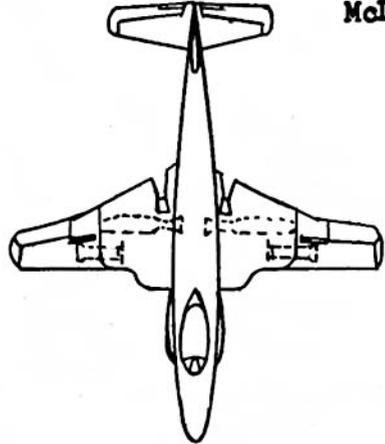
IFF (I-R UNIT).....AN/APX-17
(Planned Service Installation)

CHARACTERISTICS SUMMARY

GENERAL PURPOSE FIGHTER

F2H-3

MCDONNELL "BANSHIE"



WING AREA 294 sq. ft.
WING SPAN 41' - 9"

LENGTH 48' - 2"
HEIGHT 14' - 6"

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

STATUS

Mock-up date -- October 1950
 First flight (prototype) -- December 1951
 Service use to start -- August 1952

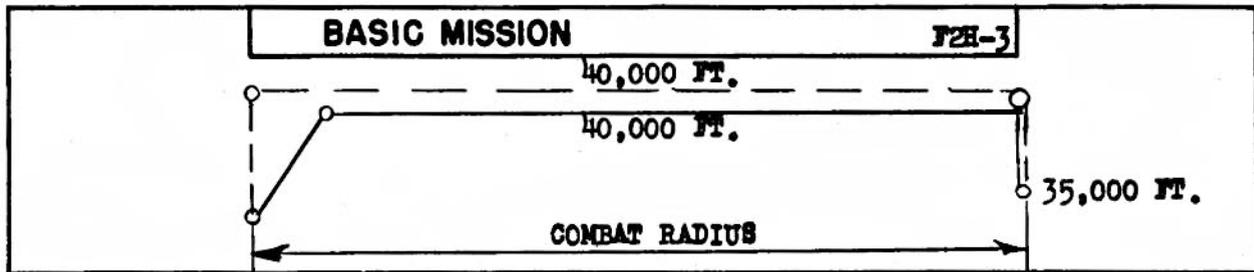
ENGINES	
2	West. J34-WE-34
Lbs. / Rpm / Alt.	
T. O.	3250/12500/S.S.L.
MIL.	3250/12500/S.S.L.
NORM.	2650/11800/S.S.L.

FEATURES
Crew - 1
Tricycle Gear
Catapulting Provisions
Arresting Gear
Ejection Seat
Pressurization
Folding Wings
1,442 gallons fuel, maximum capacity

ARMAMENT
4 - 20mm Cannon, Nose, 600 rds. amm.
8 - HVAR or HPAG Rockets, Wings
8 - 250# Bombs, Wings
2 - 500# Bombs, Wings
Any combination of above not to exceed 3,200 lbs.

NAVAER 1519 A (REV. 1-49) 61 35807

CHARACTERISTICS SUMMARY



PERFORMANCE		
COMBAT RADIUS	COMBAT RANGE	SPEED
415 naut. mi. 430 knots avg.	1,015 naut. mi. 400 knots avg. 40,000 ft. alt.	503 knots at S. L. ft. 455 knots at 35,000 ft. 452 knots at 40,000 ft. Combat Weight Maximum Power
CLIMB	CEILING	TAKE OFF
5,150 ft./min. Sea Level, T. O. wt. Military Power	47,000 ft. 100 ft./min., T. O. wt. Military Power	2,490 ft. - Calm No assist.
6,000 ft./min. Sea Level, Combat Wt. Maximum Power	46,600 ft. 500 ft./min., Combat Wt. Maximum Power	1,560 ft. - 25 Kn. No assist.
LOAD	WEIGHTS	STALLING SPEED
Fuel 1,102 gal. fixed 1,102 drop — Payload (Ammunition, Rockets, Bombs) 337 lbs.	Empty 13,183 lbs. Combat 18,367 lbs. Take-off 21,013 lbs.	115 knots Flaps down, T. O. wt.
		TIME TO CLIMB — ft. in -- min. Combat Wt., Max. Power

NOTES

Performance is based on calculations and NATC flight test of the F2H-2 airplane.

The F2H-4 airplane is the same as the F2H-3 airplane but carries AN/APG-37 radar instead of AN/APG-41 radar. Weight and performance of the two airplanes are the same.

Range and radius are based on flight test fuel consumption increased by 5%. This sheet supersedes previously issued chart dated 1 May 1951.

Reason for reissue: F2H-2 flight test data available.