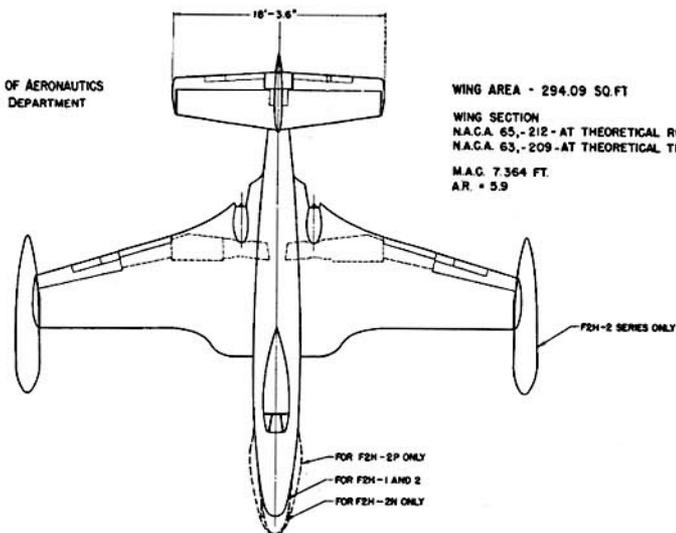


STANDARD AIRCRAFT CHARACTERISTICS

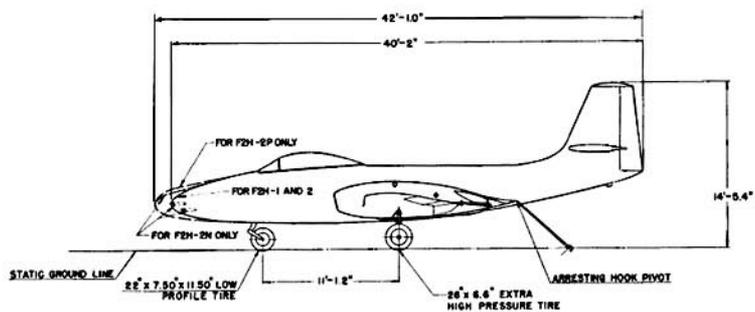
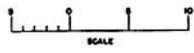
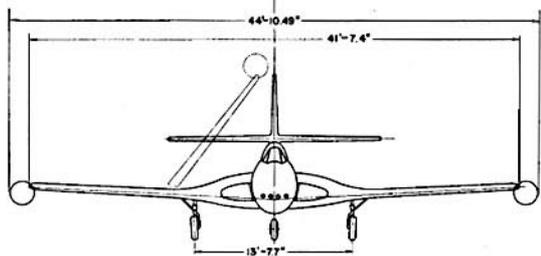
F2H-1 "BANSHEE"

McDONNELL

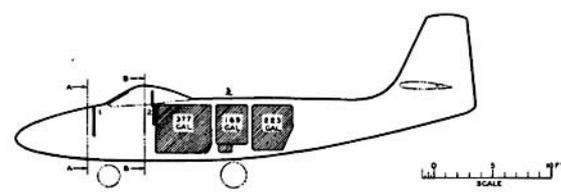
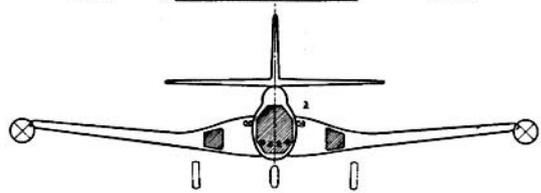
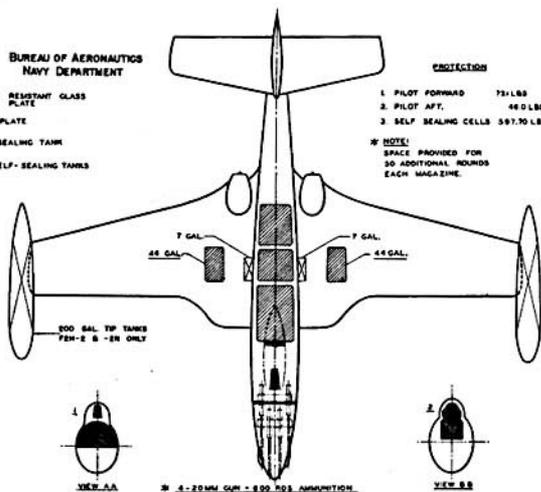
BUREAU OF AERONAUTICS
NAVY DEPARTMENT



WING AREA - 294.09 SQ. FT.
WING SECTION
N.A.C.A. 65,-212 - AT THEORETICAL ROOT
N.A.C.A. 63,-209 - AT THEORETICAL TIP
M.A.C. 7.364 FT.
A.R. = 5.9



DESCRIPTIVE ARRANGEMENT



ARMAMENT & TANKS

MISSION AND DESCRIPTION

The Model F2H-1 airplane is a single place, two engine, jet propelled fighter. Designed to be either land or carrier based, the airplane is equipped with an electrically actuated, fully retractable, tricycle landing gear, folding outer panels, an arresting hook with cable expelling mechanism, and conventional catapult equipment. Independent retraction of the nose gear to kneel the airplane permits compact spotting on the flight deck.

Stressed metal skin construction is employed throughout with all surfaces being of the full cantilever type. The control systems are conventional with the exception of the aileron system which incorporates hydraulic boost. The split flaps, speed brakes, and trim tabs are all electrically actuated. In addition to conventional items, pilot equipment includes an ejection seat and cabin pressurization.

DIMENSIONS

WING AREA.....294 sq. ft.
 SPAN.....41' - 7"
 LENGTH.....40' - 2"
 HEIGHT.....14' - 6"
 TREAD.....13' - 8"
 M.A.C.....7' - 4"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	9,663.....	
BASIC.....	10,281.....	
DESIGN.....	14,000.....	7.5
COMBAT.....	14,055.....	7.5
MAX.T.O.....	16,160.....	6.5
MAX.LAND.....	16,000.....	

All weights are calculated.

FUEL AND OIL

Gals.	No. Tanks	Location
789	3	Fuse., S.S.
88	2	Wing, S.S.

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

OIL

CAPACITY (Gals.).....14
 GRADE.....1010
 SPEC.....AN-O-9

ELECTRONICS

VHF.....AN/ARC-1
 IFF.....AN/APX-1 or -1A
 NAV. RADIO.....AN/ARR-2A
 ADF.....AN/ARN-6
 IFF.....AN/APX-6
 (To be installed in service)

POWER PLANT

NO. & MODEL.....(2) J34-WE-30
 MFR.....Westinghouse
 ENG. LENGTH.....120"
 ENG. DIAMETER.....27"

RATINGS

Lbs. @ Rpm @ Alt.

T. O. 3,150 12,500 S.S.L.
 MIL. 3,150 12,500 S.S.L.
 NORMAL 2,620 11,800 S.S.L.

SPEC. NO. WAGT-24C4C-2C

ORDNANCE

GUNS

No.	Size	Location	Rds.
4	20 mm	Nose	600

FIRE CONTROL

AFCS.....Mk. 6 Mod. 1

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



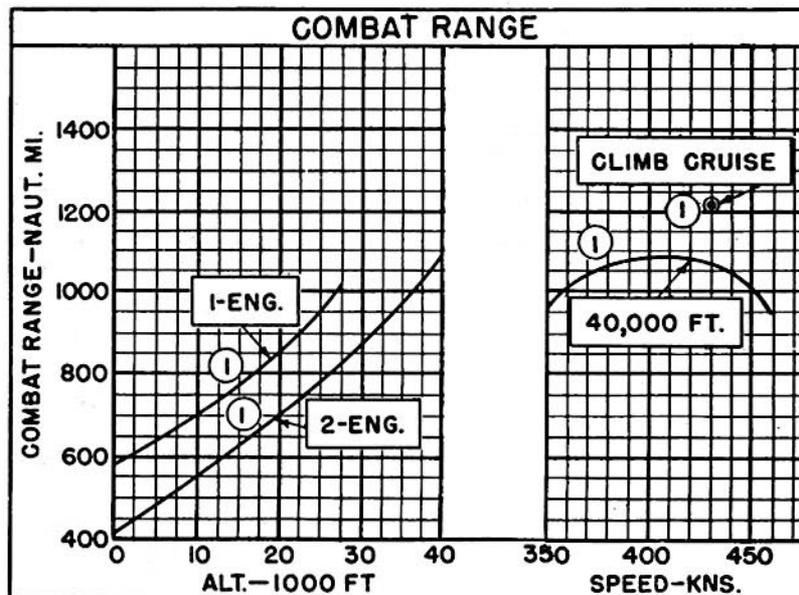
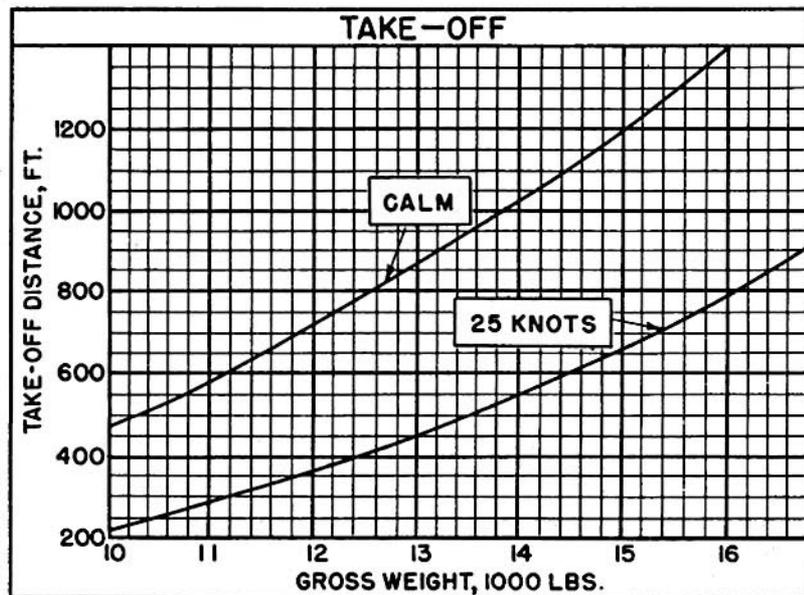
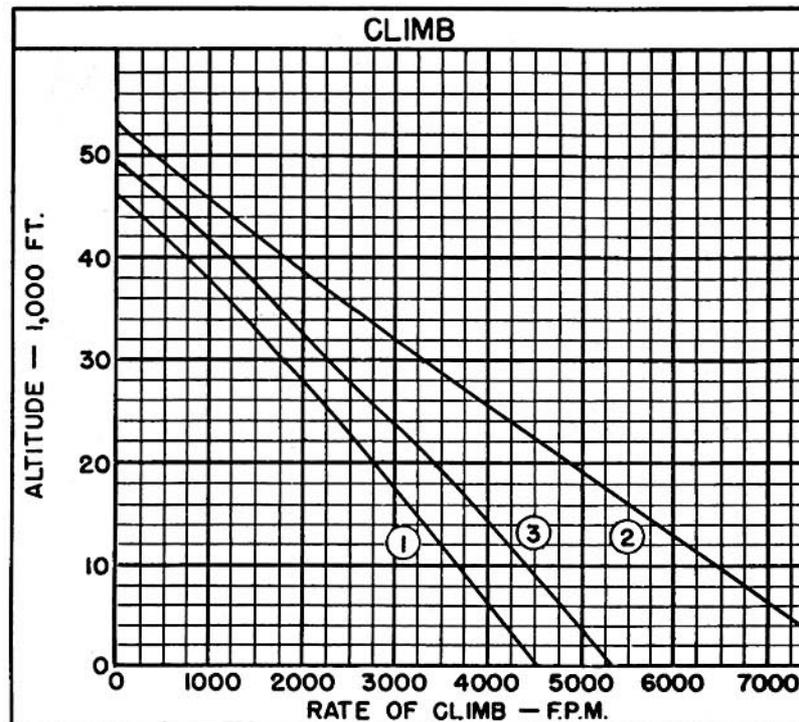
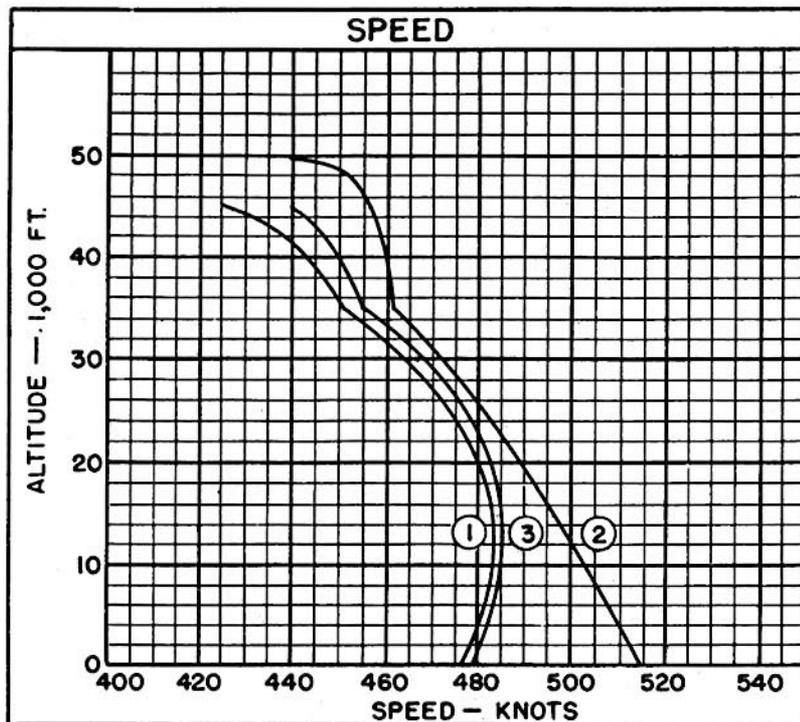
PERFORMANCE SUMMARY			
LOADING CONDITION		(1) FIGHTER Full Internal Fuel	
TAKE-OFF WEIGHT	lbs.	16,160	
Fuel	lbs.	5,262	
Bombs	lbs.		
Wing/Power Loading (A)	lbs/sq.ft; lbs/bhp.	55/-	
Stall Speed--Power off	kn.	94.1	
Stall Speed--Power off - No Fuel	kn.	77.2	
Stall Speed--Power on	kn.	91.3	
Maximum Speed/Alt (B)	kn/ft.	483/14,000	
Take-off Distance, deck -- calm	ft.	1,435	
Take-off Distance, deck 25 kn.	ft.	815	
Take-off Distance, Airport	ft.		
Rate of climb -- sea level (B)	ft/min.	4,500	
Service Ceiling (B)	ft.	45,400	
Time-to-climb 20,000 ft. (B)	min.	5.5	
Time-to-climb 30,000 ft. (B)	min.	9.9	
Combat Range/V av (Climb)	ft. n.mi/kn.	1,215/430	
Combat Radius/V av (F-5)	ft. n.mi/kn.	480/426	
LOADING CONDITION		(2) COMBAT	(3) COMBAT
GROSS WEIGHT	lbs.	14,055	14,055
Engine power		Military	Normal
Fuel	lbs.	3,157	3,157
Bombs/Tanks		None	None
Max. speed at sea level	kn.	514	479
Max. speed/Alt	kn/ft.	514/S. L.	485/13,000
Combat speed/Alt	kn/ft.	462/35,000	455/35,000
Rate of climb SL	ft/min.	8,030	5,285
Ceiling for 500 fpm R/C	ft.	49,600	45,800
Time-to-climb/Alt.	min/ft.	7.3/35,000	10.6/35,000

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 data increased by 5%.



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

○ LOADING CONDITION COLUMN NUMBER

American Aviation Historical Society Archives - www.aahs-online.org

NOTES

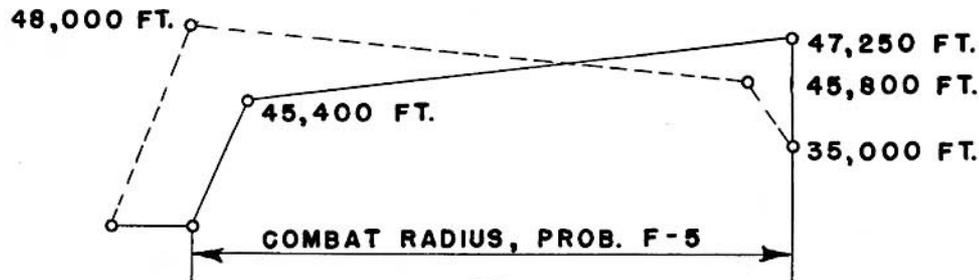
Spotting: 192 ft. length is required to spot 25 airplanes on the 96 ft. wide deck immediately aft of the forward ramp on the CV-9 class carriers.

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

<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.

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

For combat range, altitude at start of cruise, 45,400 ft.; altitude at end of cruise, 48,000 ft. Altitude at end of cruise is limited by idle limit setting of engines.



①