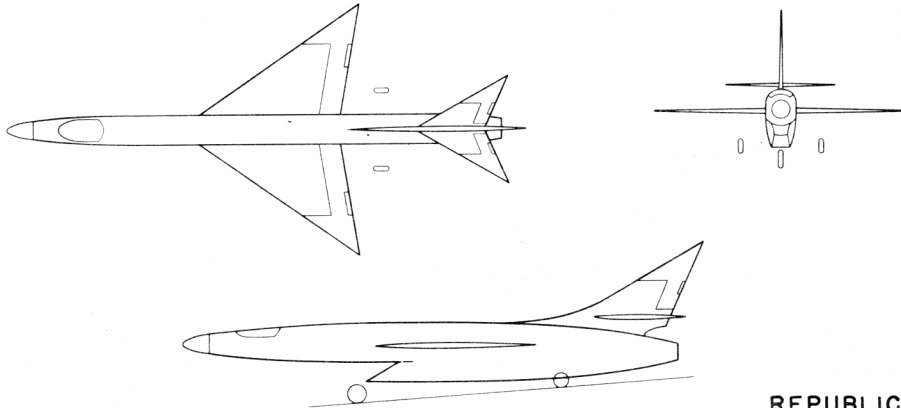


Initial issue

Characteristics Summary

FIGHTER (Interceptor) 1954 AWI



REPUBLIC

Wing area 401 sq ft Length 73.6 ft
 Span 35.7 ft Height 18.7 ft

AVAILABILITY

PROCUREMENT

Number available			Number to be delivered in fiscal years			
ACTIVE	RESERVE	TOTAL				

STATUS

This summary reflects preliminary characteristics and performance estimates of one of three contractors proposals selected for Phase I development. Upon completion of Phase I, further evaluation will be conducted for the purpose of selecting one of the designs for further development leading to a production contract.

Mfr's Model: AP-57

POWER PLANT

(1) YJ67-W-1
Wright

ENGINE RATINGS

S.L.S.	LB - RPM - MIN
Max:	*19,700 - 6600 - 5
Mil:	11,800 - 6600 - 30
Nor:	9700 - 6600 - Cont

*With afterburner operating

FEATURES

Crew: 1
 Delta Wing
 Braking Parachute
 Afterburner convertible to Independent Ram Jet
 Variable Incidence Wing
 Continuous Int. & Ext. Purging System
 Adjustable Cockpit
 Single-Point Refueling
 Ejection Seat
 Max Fuel Capacity: 2420 gal

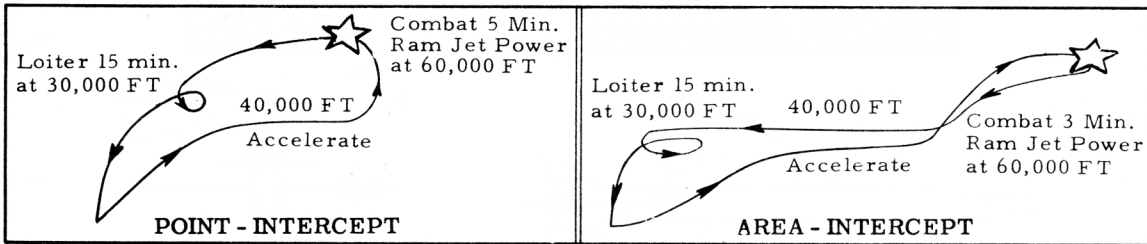
ARMAMENT

Guns: None
 Bombs: None
 Missiles: 6 x XAAM-2-A (Falcon)
 Rockets: 36 x 2.75' FFAR

For later development see XF-103

Classification cancelled
or changed to ~~Confidential~~
 AUTH: AF SA AF d C Sec class Guide
 BY: C. R. Jannelborn 19 Sept 64
 Signature and Grade 15 Dec 1966

Characteristics Summary Basic Mission 1954 AWI



PERFORMANCE		
INTERCEPT	COMBAT RANGE	COMBAT SPEED
POINT (4) Total Mission Time for Interception at 60,000 ft. = 29.53 minutes	1716 naut. mi with 1291 lb payload at 474 knots avg. in 3.56 hours.	1724 knots at 60,000 ft. alt.-max.power with Ram Jet Power
AREA 375 Nautical Miles at 692 Knots Average in 1.38 hours.		MAXIMUM SPEED 782 knots at Zero ft. alt.-max.power with Turbo-Jet
C L I M B	C E I L I N G	T A K E - O F F
(2) 23,400 fpm. at S.L. Take-Off Weight, Max.Power with Turbo - Jet	(2) 28,500 ft. at 100 fpm, Take-Off Weight, Nor. Power	ground run (3) 3150 ft _____ ft no assist assisted
(2) 35,000 fpm. at 60,000 ft. Combat Wt.,Max.Pow. with Ram Jet Power	(2) 56,500 ft. at 500 fpm, Combat Wt.,Max.Power with Turbo - Jet	over 50 ft height (3) 4600 ft _____ ft no assist assisted
L O A D	W E I G H T S	S T A L L I N G S P E E D
Armament: 36x2.75" FFAR and 6xXAAM-2-A (Falcon)	Empty..... 19,370 lb Combat... 23,550 lb (3) Combat 25,400 lb (2) Take - off 31,708 lb (2) † Take - off 38,096 lb (3) † limited by strength	_____ knots slats & flaps down, take-off wt.
Fuel: (2) 1497 gal protected 2 0% droppable 2 0% external 2 0% Fuel: (3) 2403 gal protected 3 0% droppable 3 21% external 3 21%		TIME TO CLIMB 9.53(4)min S.L. to 60,000 ft., (2) Take-off weight, Max turbo-jet power to 40,000 ft, Ram Jet power to 60,000 ft.

- N O T E S**
1. PERFORMANCE BASIS:
 - (a) Manufacturer's estimated data (not substantiated by WADC)
 - (b) Fuel density: 6.5 lb/gal (JP-3)
 - (c) Afterburner is used independently as a ram-jet when air is by-passed around the turbo-jet.
 - (d) Powers used for performance calculations are as follows:

YJ67-W-1	{	S.L.S.	LB	-	RPM	}
		Max:	*16,960	-	6600	
		Mil:	11,200	-	6600	*With afterburner operating
		Nor:	8350	-	6600	
 2. For the Point-Intercept Mission
 3. For the Area-Intercept Mission
 4. Includes time for take-off and acceleration.
 5. REVISION BASIS: Initial issue.