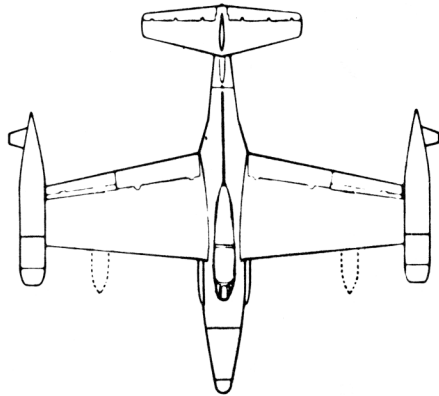
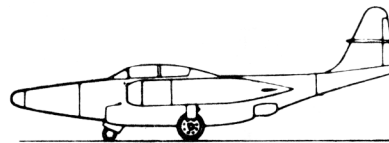
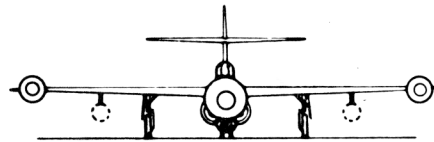


# Characteristics Summary

FIGHTER (INTERCEPTOR) . . . . . F-89D



"SCORPION"



NORTHROP

Wing Area (Includes tip pods) . . . 650 sq ft      Length . . . . . 53.8 ft  
Span . . . . . 59.7 ft      Height . . . . . 17.5 ft

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

## STATUS

1. First Flight (YF-89D): Oct 51
2. Contract Date: Jul 52
3. First Flight (F-89D): Jan 53
4. First Acceptance: Jul 53
5. Production Status: Completed  
Navy Equivalent: None
6. The F-89D is similar to the F-89C except for improved high-altitude afterburner engines, increased internal fuel capacity, type of armament, rocket-fuel wing tip pods and additional radar equipment.  
Mfr's Model: N-68

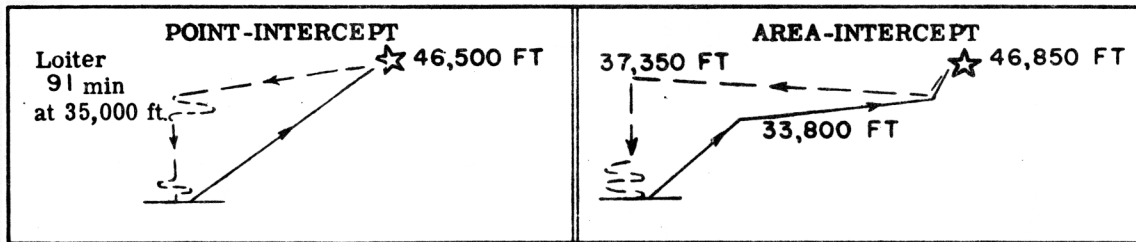
POWER PLANT	
† (2) J35-A-35 Allison	
ENGINE RATINGS	
S.L.S.	LB - RPM - MIN
Max:	*7200 - 8000 - 5
Mil:	5440 - 8000 - 30
Nor:	4855 - 7680 - Cont
*With afterburner operating Note: Values are for engines with inlet screens retracted. † See note (3)	

FEATURES
Crew (normal) . . . . . 2 Pilot, Radar Operator
All-Weather Interception Radar
Instrument Landing System
Full Power Control System
Sideslip Stability Augmenter
Thermal Anti-Icing
E-11 Auto-Pilot
E-6 Fire Control System
Cabin Press. & Refrigeration
E-9 Fire Control System (prov)
A-1 Flight Computer System
Rocket-Fuel Wing Tip Pods
Ejection Seats
Split Aileron Speed Brakes
Anti-G Suit Provisions
Single-Point Refueling
Max Fuel Cap: . . . * 2369 gal
*See note (4)

ARMAMENT	
Guns . . . . . None	
Rockets: *104 x 2.75" FFAR	
Bombs . . . . . None	
*Provisions for replacing the FFAR rockets with guided aircraft rockets (GAR-1) are incorporated.	

*Black book*

*Characteristics Summary Basic Mission . . . . . F-89D*



PERFORMANCE																	
INTERCEPT	FERRY RANGE	SPEED															
<b>POINT</b> Total Mission Time for Interception at 46,500 ft. Equals 114 minutes  <b>332 AREA</b> Nautical Miles at 406 Knots Average in 1.71 hours	<b>1188</b> naut. mi. with 2372 gal. fuel at 395 knots avg. in 3.03 hours at 44,756 lb. T.O. wt.	<b>POINT</b> COMBAT <b>454</b> knots at 46,500 ft. alt, max. power MAX <b>552</b> knots at 10,600 ft. alt, max. power BASIC <b>485</b> knots at 40,000 ft. alt. max. power															
CLIMB	CEILING	TAKE-OFF															
<b>POINT</b> (2) <b>7440</b> fpm. at S.L. Take-Off Weight, Max. Power	<b>POINT</b> <b>49,200</b> ft. at 100 fpm, Take-Off Weight, Max Power	ground run <b>AREA</b> <b>3400</b> ft.   _____ ft. no assist   assisted															
<b>POINT</b> (2) <b>8360</b> fpm. at S.L. Combat Wt., Max. Pow.	<b>POINT</b> <b>46,500</b> ft at 500 fpm, Combat Weight, Max. Power	over 50 ft. height <b>AREA</b> <b>4640</b> ft.   _____ ft. no assist   assisted															
LOAD	WEIGHTS	STALLING SPEED															
Rockets: 104x2.75" FFAR  <table border="0"> <tr> <td></td> <td><b>POINT</b></td> <td><b>AREA</b></td> </tr> <tr> <td>Fuel</td> <td>1772 gal.</td> <td>1772 gal.</td> </tr> <tr> <td>protected</td> <td>26.5 %</td> <td>26.5 %</td> </tr> <tr> <td>droppable</td> <td>0 %</td> <td>0 %</td> </tr> <tr> <td>external</td> <td>34.5 %</td> <td>34.5 %</td> </tr> </table>		<b>POINT</b>	<b>AREA</b>	Fuel	1772 gal.	1772 gal.	protected	26.5 %	26.5 %	droppable	0 %	0 %	external	34.5 %	34.5 %	Empty 25,194 lb. Combat 37,190 lb. Point 36,062 lb. Area Take-off 42,241 lb. limited by mission	<b>AREA</b> <b>118</b> knots power-off, landing configuration, take-off weight <b>TIME TO CLIMB</b> POINT (b) <b>18.1</b> Min. S.L. to 46,500 Ft. Take-off Weight, Max. Power
	<b>POINT</b>	<b>AREA</b>															
Fuel	1772 gal.	1772 gal.															
protected	26.5 %	26.5 %															
droppable	0 %	0 %															
external	34.5 %	34.5 %															

- N O T E S**
- Performance Basis:
    - Flight tests
    - Includes 1.9 min for take-off and acceleration to best climb speed
  - Below 20,000 ft limit IAS is 470 kn or 0.9 Mach whichever is less.
  - Early airplanes equipped with J35-A-33A or J35-A-41 engines are being converted to -47's. Performance with -47's is essentially the same as -35 engines.
  - Single-Point refueling increases fuel capacity by 47.7 gal and the capabilities are improved accordingly.
  - Revision Basis: To reflect changes in fuel capacity and security classification.