Characteristics Summary

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

"SCORPION"

NORTHROP

Wing Area (includes tip pods) .......... 650 sq ft
Span ........................................ 59.7 ft
Length ..................................... 55.8 ft
Height ..................................... 17.5 ft

AVAILABILITY

Number available

ACTIVE RESERVE TOTAL

PROCUREMENT

Number to be delivered in fiscal years

STATUS

1. The F-89H is similar to the F-89D except for installation of E-9 Fire Control System in lieu of the E-6 system, redesign of the wing tip pods to incorporate missiles, rockets and auxiliary fuel, addition of a steerable nose wheel and a simplified fuel system.

Navy Equivalent: None

POWER PLANT

(2) J35 - A-35
Allison

ENGINE RATINGS

S.L.S. LB - RPM - MIN
Max: 7200 - 8000 - 5
Mil: 5450 - 8000 - 30
Nor: 4855 - 7680 - 20

*With afterburner operating

Note: Values are with inlet screens retracted.

FEATURES

Crew (normal) ............... 2
Pilot
Radar Operator
All-Weather Interception
Radation
Instrument Landing System
Sideslip Stability Augmentor
E-11 Auto-Pilot
E-9 Fire Control System
Ejection Seats
Split-Alleron Speed Brakes
A-2 Flight Computer System
Missile/Rocket/Fuel Wing Tip Pods
Steerable Nose Wheel
Single-Point Refueling
Full Power Flight Control System
Low Pressure Oxygen System
Max Fuel Capacity: 2369 gal

FEATURES

ARMS

Guns ......................... None
Rockets ... 42 x 2.75" FFAR plus 6 x GAR-1
Bomb ......................... None

Mfr's Model: N-138

F-89H

57WC 4983

CONFIDENTIAL

OCT 17 1957
57WC 1957
## Performance

### Intercept

- **Total Mission Time for Interception at 44,100 ft.**
  - Total: 1096 naut. mi. with 2369 gal. fuel
  - Equals: 102.6 minutes

### Ferry Range

- **1096 naut. mi.** with 2369 gal. fuel
- **398 knots avg.** in 2.78 hours
- **45,383 lb. T.O. wt.**

### Speed

- **460 knots at 44,100 ft. alt., max. power**
- **542 knots at 9750 ft. alt., max. power**
- **480 knots at 40,000 ft. alt., max. power**

### Climb Ceiling Take-off

<table>
<thead>
<tr>
<th>POINT</th>
<th>CEILING</th>
<th>TAKE-OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>6300 fpm. at S.L.</td>
<td>46,500 ft. at 100 fpm, Take-Off Weight, Max Power</td>
<td>ground run 3500 ft.</td>
</tr>
<tr>
<td>7050 fpm. at S.L. Combat Wt., Max Pow.</td>
<td>44,100 ft. at 500 fpm, Combat Weight, Max Power</td>
<td>assisted over 50 ft. height</td>
</tr>
</tbody>
</table>

### Load Weights

<table>
<thead>
<tr>
<th>POINT</th>
<th>AREA</th>
<th>WEIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>1769 gal. 1769 gal.</td>
<td>Empty: 25,753 lb.</td>
</tr>
<tr>
<td>protected</td>
<td>25.8%</td>
<td>25.8%</td>
</tr>
<tr>
<td>droppable</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>external</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POINT</th>
<th>AREA</th>
<th>TAKE-OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protected</td>
<td>Take-off: 43,175 lb.</td>
<td></td>
</tr>
</tbody>
</table>

### Stallling Speed

- **118 knots** power-off, landing configuration, take-off weight

### Time to Climb

- **17.2 Min.** from S.L. to 44,100 ft.
- Take-off Weight, Max. Power

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### Notes

1. **Performance Basis:**
   - (a) Phase IV flight test data (Not substantiated by WADC)
   - (b) From standing start

2. **Below 20,000 ft., limit IAS-470 kn or 0.9 Mach, whichever is less.**

3. **Revision Basis:** To reflect Phase IV flight test data.