# Characteristics Summary

**FIGHTER ............... YF-100**

SABRE "45"

**NORTH AMERICAN**

- **Wing Area** ............... 376 sq ft
- **Length** ............... 46.2 ft
- **Span** ............... 36.8 ft
- **Height** ............... 14.4 ft

## Availability

<table>
<thead>
<tr>
<th>Number available</th>
<th>Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACTIVE</strong></td>
<td><strong>RESERVE</strong></td>
</tr>
</tbody>
</table>

## Status

1. One (1) aerodynamic and one (1) armament prototype model is being built.
2. Contract Date: 14 Nov 51
3. Mock-up Date: 14 Nov 51
4. First Flight: May 53

Navy Equivalent: None

Mfr's Model: NA-180

## Power Plant

- **(1) XJ57-P-7**
  - Pratt & Whitney
  - **Engine Ratings**
    - S.L.S.: LB - RPM - Min: *13,200 - 18850/9630-5*
    - Mil: 8450 - 15850/9630-30
    - Nor: 7250 - 15570/9440-Cont

  *With afterburner operating
  †First figure represents RPM of the low pressure spool while the second is that of the high pressure spool.

## Features

- Crew: ............... 1
- 45° Sweepback - Wing and Tail Ejection Seat
- Cockpit Pressurization
- Speed Brakes
- Hydraulic Power-operated Irreversible Controls with Artificial Feel
- Automatic Wing Slats
- All-moving Horiz. Stabilizer
- AN/APG-30 Radar Ranging
- A-4 Gun Sight
- Fuel Purging
- N-9 Gun Camera
- Jettisonable Canopy
- 16 foot Drag Chute
- Revolver-Type Guns
- Max Fuel Capacity: 1307 gal

## Armament

- Guns: .......... (4(M-39) x 20 mm
- Ammunition (tot): 1100 rds
- Rockets: .......... None
- Bombs: .......... None

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22 MAY 53

CONFIDENTIAL
Characteristics Summary Basic Mission

YF-100

Performance

<table>
<thead>
<tr>
<th>Combat Radius</th>
<th>Ferry Range</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>422 naut. mi</td>
<td>1410 naut. mi</td>
<td>COMBAT 573 knots at 43,350 ft alt, max power</td>
</tr>
<tr>
<td>with 770 lb payload</td>
<td>with 1307 gal fuel</td>
<td>MAX 634 knots at zero ft alt, max power</td>
</tr>
<tr>
<td>at 522 knots avg.</td>
<td>at 524 knots avg.</td>
<td>BASIC 597 knots at 35,000 ft alt, max power</td>
</tr>
<tr>
<td>in 2.01 hours</td>
<td>in 2.74 hours</td>
<td></td>
</tr>
</tbody>
</table>

Climb Ceiling Take-off

<table>
<thead>
<tr>
<th>Climb</th>
<th>Ceiling</th>
<th>Take-off</th>
</tr>
</thead>
<tbody>
<tr>
<td>4400 fpm sea level, take-off weight \n military power</td>
<td>39,600 ft 100 fpm, take-off weight \n military power</td>
<td>ground run 2680 ft no assist</td>
</tr>
<tr>
<td>12,500 fpm sea level, combat weight \n maximum power</td>
<td>52,600 ft 500 fpm, combat weight \n maximum power</td>
<td>over 50 ft height 4200 ft no assist</td>
</tr>
</tbody>
</table>

Load Weights Stalling Speed

<table>
<thead>
<tr>
<th>Load</th>
<th>Weights</th>
<th>Stalling Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammunition: 1100 rds/20mm</td>
<td>Empty..... 18,279 lb</td>
<td>139 knots power-off, landing configuraion, take-off weight</td>
</tr>
<tr>
<td>Fuel: 1307 gal protected 0 %</td>
<td>Combat... 24,789 lb</td>
<td></td>
</tr>
<tr>
<td>droppable 42.1 %</td>
<td>Take-off 28,965 lb</td>
<td></td>
</tr>
<tr>
<td>external 42.1 %</td>
<td>limited by space</td>
<td></td>
</tr>
</tbody>
</table>

Notes

1. Performance Basis:
   (a) Contractor's estimated data
2. Revision Basis: Initial Issue

YF-100

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