Characteristics Summary

CARGO: YC-97J

*STRATOFREIGHTER*

**Boeing**

- Wing Area: 1768.7 sq ft
- Length: 110.3 ft
- Height: 36.2 ft
- Span: 141.2 ft (Pin Folded: 26.7 ft)

**Availability**

<table>
<thead>
<tr>
<th>Number available</th>
<th><strong>Procurement</strong></th>
<th>Number to be delivered in fiscal years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td><strong>Reserve</strong></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

**Status**

1. Design Initiated: Jul 53
2. Contract Approved: Sep 53
3. Mock-Up: Dec 53
4. First Flight: Feb 55
5. Delivery: Jun 55

Navy Equivalent: None

**Power Plant**

- (4) YT34-P-5
- Pratt & Whitney
- **Engine Ratings**
  - S.L.S. SHP: LB - RPM - MIN
  - T.O: 5200 - 1250 - 11,000 - 5
  - Mil: 5040 - 1150 - 11,000 - 30
  - Nor: 4500 - 1125 - 10,750 - Cont

**Features**

- Multi-purpose Aircraft
- Cargo Hoist System
- Cargo Doors Port and Aft
- Double Deck Type Fuselage
- Reverse Pitch Propellers
- Emergency Negative Thrust Control System
- Cabin Pressurization and Air-Conditioning
- Thermal Anti-icing System
- Folding Fin and Rudder
- Automatic Pilot
- Rudder Boost System
- Single Point Ground Fueling
- Dropable Wing Tanks

- Max Fuel Cap: 9170 gal

**General**

- Crew: 4
- Cargo Volume (usable):
  - Main Compt: 4309 cu ft
  - Lwr Compt: 1819 cu ft
- Loading:
  - Main Floor: 200 lb/sq ft
- Monorail Hoist Capacity:
  - Double Line: 5000 lb
  - Single Line: 2500 lb
- Cargo Door:
  - Fwd R H: width 6.7', length 8.5'
  - Aft: width (max) 9.3', (min) 6.4', length 14.3'

- Tie Downs: 6 rows - 20 inch spacing
- Max Cargo Cap: 48,000 lb
- *Limited by strength

4 SEP 55
## Characteristics Summary Basic Mission . . . . YC-97J

![Diagram showing flight path and distances](attachment:image)

### PERFORMANCE

<table>
<thead>
<tr>
<th>COMBAT RADIUS</th>
<th>COMBAT RANGE</th>
<th>SPEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 naut. mi with 53,600 lb payload at 290 knots avg. in 7.1 hours.</td>
<td>1705 naut. mi with 53,600 lb payload at 287 knots avg. in 6.0 hours.</td>
<td>COMBAT 332 knots at 38,750 ft alt, nor power</td>
</tr>
<tr>
<td>MAX 360 knots at 24,400 ft alt, nor power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASIC 360 knots at 25,000 ft alt, nor power</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CLIMB

<table>
<thead>
<tr>
<th>SEA LEVEL, TAKE-OFF WEIGHT NORMAL POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1610 fpm</td>
</tr>
</tbody>
</table>

### CEILING

<table>
<thead>
<tr>
<th>100 fpm, TAKE-OFF WEIGHT NORMAL POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>26,000 ft</td>
</tr>
</tbody>
</table>

### TAKE-OFF

- ground run: 5600 ft no assist
- over 50 ft height: 6420 ft no assist

### LOAD

<table>
<thead>
<tr>
<th>Cargo . . . . . 53,600 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel: 6885 gal</td>
</tr>
<tr>
<td>protected 0</td>
</tr>
<tr>
<td>droppable 4.4</td>
</tr>
<tr>
<td>external 4.4</td>
</tr>
</tbody>
</table>

### WEIGHTS

<table>
<thead>
<tr>
<th>Empty . . . . . 72,188 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combat . . . . . 95,670 lb</td>
</tr>
<tr>
<td>Take-off . . . . . 175,000 lb</td>
</tr>
<tr>
<td>limited by strength</td>
</tr>
</tbody>
</table>

### STALLING SPEED

108 knots power-off, landing configuration, take-off weight

### TIME TO CLimb

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### NOTES

1. Performance Basis:
   - Estimated Data
   - Take-off at 175,000 lb is overload operation. Normal take-off is at 153,000 lb.


3. Revision Basis: To add RPM ratings under "Power Plant" block.