## Characteristics Summary

**BOMBER** ...................... **B-1A**

### Wing Area
- 1946 sq ft

### Length
- 145.3 ft

### Span (sweep angle 15°)
- 136.7 ft
  - (sweep angle 67.5°)
  - 77.8 ft

### Height
- 33.6 ft

## Availability

<table>
<thead>
<tr>
<th>ACTIVE</th>
<th>RESERVE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Procurement

<table>
<thead>
<tr>
<th>Number available</th>
<th>Number to be delivered in fiscal years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Status

1. Date of Contract: Jun 70
2. First Flight: Dec 74

Navy Equivalent: None

## Power Plant

- **(4) F101-GE-100**
- General Electric
- **ENGINE RATINGS**
  - S, L, S
  - LB - RPM - MIN
  - Max: 29,850 - † - Cont
  - Intermed: 16,150 - ‡ - Cont

  * Afterburner
  † HPR/LPR 14, 829/6115

## Features

- Crew: 4
- Variable-Sweep Wing
- Single slotted flaps
- Leading-edge slats
- External Compression Inlet
- Spoliers
- Power operated controls
- Automatic pilot
- Rotary Missile Launcher
- Air Refuelling Prov.
- Crew compartment provides "shirt-sleeve" environment
- Crew escape system consists of an ejectable module
- (C) Max fuel capacity: 34,104 gal
- (C) Internal: 30,786 gal
- (C) Weapons Bay: 3315 gal

## Armament

### Missiles

- **NR**
- Type
- 24 (Int.) . . . SHAM . . . . AGM-69A
- 8 (Ext) . . . . SHAM . . . . AGM-69A

### Bombs

- **NR**
- **Class** (lb)
- 30 . . M117 or M117R . . . 750
- 84 . . MK82 or MK82 SN . . 500
- 30 . . MK84 . . . . . . . . 2000
- 135 . . Bluff shape . . . . 500

### Electronics

Specific Avionics equipment will be determined during RDT & E program.
### Characteristics Summary Basic Mission

**B-1A**

#### Performance

<table>
<thead>
<tr>
<th>COMBAT RANGE</th>
<th>FERRY RANGE</th>
<th>SPEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>5675 naut. mi</td>
<td>6242 naut. mi</td>
<td>COMBAT: 95 mach/628 knots at 200 ft alt, max thrust</td>
</tr>
<tr>
<td>with 50,000 lb payload at a penetration &amp; target speed of 0.85 mach/562 knots in 12.7 hours.</td>
<td>with 33,195 gal fuel at 417 knots avg. in 15.0 hours at 395,000 lb T.O. wt.</td>
<td>MAX: 2.2 mach/1262 knots at 53,200 ft alt, max thrust</td>
</tr>
<tr>
<td>BASIC: 1.9 mach/1095 knots at 35,000 ft alt, max thrust</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Climb

<table>
<thead>
<tr>
<th>take-off</th>
</tr>
</thead>
<tbody>
<tr>
<td>2600 fpsm sea level, take-off weight intermediate thrust</td>
</tr>
<tr>
<td>24,600 fpsm 100 fpsm, take-off weight intermediate thrust</td>
</tr>
<tr>
<td>22,600 fpsm sea level, combat weight maximum thrust</td>
</tr>
<tr>
<td>52,800 fpsm 500 fpsm, combat weight maximum thrust</td>
</tr>
</tbody>
</table>

#### Ceiling

- 5840 ft ground run
- no assist
- assisted over 50 ft height
- 7500 ft
- no assist
- assisted

#### Load

| Weapons: | 50,000 lb |
| Fuel (ramp): | 25,503 gal |
| *(AAR): | 15,870 gal |
| Transferred in flight from Tanker aircraft. |
| Empty | 173,000 lb |
| Combat | 229,700 lb |
| *Ramp Weight | 395,000 lb |
| Take-off | 389,800 lb |
| Max Inflight | 422,000 lb |
| Limited by strength (landing gear) |

#### Weights

| 158 knots |
| Power-off, landing configuration, take-off weight |
| Time to Climb |
| 21 min, SL to initial cruise altitude (20,800 ft), T.O. wt, Intermediate thrust |

### Notes

1. Performance Basis:
   - (a) Estimated data
   - (b) Wind tunnel data plus engine contractor's fuel flow data.

2. To reflect SPO Status data.
Characteristics Summary Basic Mission

20,800 FT M = .7
  23,000 FT
  AIR REFUEL M = .7
  41,500 FT M = 2.1
  54,600 FT
  34,900 FT
  3625 NM
  340 NM
  170 NM
  500 NM

**PERFORMANCE**

**COMBAT RADIUS**

(C) 4610 naut. mi
with 25,000 lb payload
at 9.6 hours.

(C) 6242 naut. mi
with 33,195 gal fuel
at 15.0 hours
in 395,000 lb T.O. wt.

**FERRY RANGE**

COMBAT 2.1 mach/1205 knots
at 53,000 ft alt., max thrust

MAX 2.2 mach/1262 knots at
55,400 ft alt., max thrust

BASIC 1.9 mach/1095 knots at
35,000 ft alt., max thrust

**SPEED**

(C) COMBAT

ground run
5840 ft
--- ft
assisted

(C) TAKE-OFF

over 50 ft height
7500 ft
--- ft
assisted

(C) CLIMB

2600 fpm
sea level, take-off weight
intermediate thrust

22,600 fpm
sea level, combat weight
maximum thrust

(C) CFILING

24,600 ft
100 fpm, take-off weight
intermediate thrust

52,800 ft
500 fpm, combat weight
maximum thrust

**LOAD**

Weapons . . . . . 25,000 lbs

Fuel (ramp): . . . 29,349 gal
* (AAR): . . . 15,870 gal

*Transferred in flight from Tanker aircraft.

**WEIGHTS**

Empty . . . . . 173,000 lb
Combat . . . . . 225,925 lb
Ramp . . . . . *395,000 lb
Take-off . . . . 389,800 lb
Max Inflight . . 411,526 lb

*Limited by strength (landing gear)

**STALLING SPEED**

158 knots
power-off, landing config-
uration, take-off weight

**TIME TO CLimb**

21 min, SI to initial cruise
altitude (20,800 ft), T.O. wt,
intermediate thrust.

**NOTES**

1. Performance Basis:
   (a) Estimated data
   (b) Wind tunnel data plus engine contractor's fuel flow data.

2. To reflect SPO Status Data.