Characteristics Summary

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

NORTH AMERICAN ROCKWELL

Wing Area  .................  1946 sq ft
Longth  .................  345.3 ft
Span (sweep angle 15°)  ..........  136.7 ft
(sweep angle 67.5°)  ..........  77.8 ft
Height  .................  33.6 ft

AVAILABILITY

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

STATUS

1. Date of Contract: Jun 70
2. First Flight: Apr 74 (est)

Navy Equivalent: None

Mfr's Model: D481-55B

POWER PLANT

(4) F101-GE-100
General Electric

ENGINE RATINGS

S.L.S.  LB - RPM - MIN
Max  *29,850 - ▼ Cont
Intermed: 16,110 - ▼ Cont

* Afterburner

Ⅰ HPR/LPR 14, 470/7960
Ⅰ HPR/LPR 14, 710/7960

FEATURES

Crew:  .................  4
Variable-Sweep Wing
Double slotted flaps
Leading-edge slats
Mixed Compression Inlet
Spoilers
Power operated controls
Automatic pilot
Rotary Missile Launcher
Air Refueling Prov.
Crew compartment provides
"shirt-sleeve" environment
Crew escape system consists of an ejectable module
Max fuel capacity:
Int.  30,326 gal
Weapon Bay  3385 gal
Ext.  6000 gal
Total  59,711 gal

ARMAMENT

MISSILES

<table>
<thead>
<tr>
<th>Nr</th>
<th>Type</th>
<th>AMMUNITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>SRAM . . . . . AGM-69A</td>
<td></td>
</tr>
</tbody>
</table>
8 (ext) | SRAM . . . . . AGM-69A |

BOMBS

<table>
<thead>
<tr>
<th>Nr</th>
<th>Class</th>
<th>(lb)</th>
</tr>
</thead>
</table>
30  | M117 or M117R | 750 |
84  | MK82 or MK82 SN | 500 |
24  | MK84 . . . . . | 2000 |
135 | Bluff shape . . . | 500 |

ELECTRONICS

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

PERFORMANCE

COMBAT RANGE

6103 naut. mi with 50,000 lb payload
at a penetration & target
speed of .85 mach/562 knots
in 14.0 hours.

FERRY RANGE

7706 naut. mi with 32,643 gal fuel
at 407 knots avg.
in 18.9 hours
at 360,000 lb T.O. wt.

SPEED

COMBAT .95 mach/628 knots at 200
200 ft alt., max thrust

MAX 2.2 mach/1262 knots at 59,000
ft alt., max thrust

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

CLIMB

2820 fpm
sea level, take-off weight
intermediate thrust

30,930 fpm
sea level, combat weight
maximum thrust

CEILING

27,000 ft
100 fpm, take-off weight
intermediate thrust

58,800 ft
500 fpm, combat weight
maximum thrust

TAKE-OFF

4440 ft
no assist

6135 ft
assisted

GROUND RUN

over 50 ft height

WEIGHTS

Empty ........ 143,000 lb

Combat ....... 200,102 lb

Take-off ...... *360,000 lb

Max Inflight ... 391,000 lb

*limited by strength (landing gear)

STALLING SPEED

145 knots

power-off, landing configuration, take-off weight

TIME TO CLimb

11.8 min SL to initial cruise altitude (22,537 ft) T.O.
weight intermediate thrust

LOAD

Weapons: 50,000 lb

Fuel (ramp): 24,788 gal
(AAR: 15,690 gal)
protected
droppable
drooppable
external
Density: 6.5 lb/gal

NOTES

1. Performance Basis:
   (a) Estimated data
   (b) North American Rockwell Report Nr NA-71-276 dtd 1 April 1971

2. To reflect change in estimated First Flight date and climb and ceiling performance.
Characteristics Summary Supersonic Mission

B-1A

Performance

**Combat Range**

5025 naut. mi
with 25,000 lb payload
at a penetration & target speed of 2.2 mach/1262 knots
in 10.4 hours.

**Ferry Range**

7706 naut. mi
with 32,643 gal fuel
at 407 knots avg.
in 18.9 hours
at 360,000 lb T.O. wt.

**Speed**

- **Combat** 2.2 mach/1262 knots at 55,882 ft alt., max thrust
- **Max** 2.2 mach/1262 knots at 59,300 ft alt., max thrust
- **Basic** 1.9 mach/1095 knots at 35,000 ft alt., max thrust

**Climb**

2820 fpm
sea level, take-off weight
intermediate thrust

31,580 fpm
sea level, combat weight
maximum thrust

**Ceiling**

27,000 ft
100 fpm, take-off weight
intermediate thrust

59,100 ft
500 fpm, combat weight
maximum thrust

**Take-off**

- **Ground Run**
  - 4440 ft
  - No assist
- **Assisted**
  - Over 50 ft height
  - 6135 ft
  - No assist

**Load**

- **Weapons**: 25,000 lbs

**Weighs**

- **Empty**: 143,000 lb
- **Combat**: 195,821 lb
- **Take-off**: 360,000 lb
- **Max Inflight**: 391,000 lb
*limited by strength (landing gear)

**Stalling Speed**

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

**Time to Climb**

11.8 min SL to initial cruise altitude (22,537 ft) T.O. weight
intermediate thrust

Notes

1. Performance Basis:
   (a) Estimated data
   (b) North American Rockwell Report No NA-71-276 dated 1 April 1971

2. To reflect change in estimated First Flight date and climb and ceiling performance.

Nov 71
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