Characteristics Summary

BOMBER (SUPersonic) ....... XB-70A Air Vehicle Nr 2

VALKYRIE

NORTH AMERICAN

Wing Area ................................ 6298 sq ft. Length ......................... 185.8 ft.
Span ..................................... 105.0 ft. Height ............................. 30.7 ft.

AVAILABILITY

<table>
<thead>
<tr>
<th>Number available</th>
<th>PROCUREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST</td>
<td>INVENTORY</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

STATUS

1. Design Initiated: .......... Nov 55
2. Mock-up ..................... Mar 59
3. First Flight, Air Vehicle Nr 2, May 65(est)
4. Primary purpose of the vehicles is to demonstrate airworthiness in a sustained Mach 3 high altitude environment.

POWER PLANT

(6) YJ93-GE-3

General Electric
S.L.S. LB - RPM - MIN
Max: *28,000 - 6825 - Cont
Mil: 19,900 - 6825 - Cont
Nor: 17,700 - 6825 - Cont
*With afterburner

FEAT URES

Crew ......................... 2
Canard
Airframe constructed from steel and titanium
Variable area inlet
Convergent-divergent exhaust nozzle
Folding wing tips
IFF radar ..................... AN/APX-46
UHF command ............... AN/ARC-50
Interphone ................. AN/AIC-18
TACAN ....................... AN/ARN-63

Max fuel capacity: 47,470 gal
Grade ....................... JP-6

SPECIAL STORES

NOT APPLICABLE

Feb 65
(AFG 1, Addn 70) (13 of 82)

XB-70A Air Vehicle Nr 2
System 110A
### Characteristics Summary Basic Mission

**XB-70A Air Vehicle Nr 2**

**M = 3.0**

- 65,000 FT Accelerate 1.37 - 3.0 Mach
- 25,000 FT Acceleration to 1.37 Mach

---

#### Performance

<table>
<thead>
<tr>
<th><strong>Combat Radius</strong></th>
<th><strong>Operational Range</strong></th>
<th><strong>Speed</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOT APPLICABLE</strong></td>
<td>4009 naut. mi with 44,795 gal fuel</td>
<td><strong>MAX 1721 knots at 65,000 - 72,000 ft alt,</strong></td>
</tr>
<tr>
<td></td>
<td>at knots avg. in 3.04 hours at 542,029 lb T.O. wt.</td>
<td><strong>Min A/B power</strong></td>
</tr>
</tbody>
</table>

#### Climb

- **6830 fpm** sea level, take-off weight military power
- **30,600 fpm** sea level, combat weight maximum power

#### Cruise

- **77,100 ft** 100 fpm, combat weight max. power
- **76,850 ft** 500 fpm, combat weight maximum power

#### Ground Run

- **8100 ft** no assist
- **11,500 ft** no assist

#### Weight

- **Empty...** 228,965 lb
- **Combat...** 310,505 lb
- **Take-off** 542,029 lb

#### Notes

1. **Performance Basis:**
   - (a) Based on current estimated weight of air vehicle. Flight test instrumentation & instrumentation package not included.
   - (b) 310,505 lbs is the weight 1200 n. miles prior to mission completion.

Revision Basis: To reflect latest characteristics and performance based on increased vehicle weight.

---

XB-70A Air Vehicle Nr 2
System 110A

CONFIDENTIAL

Feb 65

(14 of 82) (AFG 1, Addn 70)