Characteristics Summary

INTERCEPT MISSILE ............... CIM-10B

"BOMARC" (U) BOEING

Wing Area ..................... 141.9 sq ft Length ..................... 45.4 ft
Span .......................... 18.2 ft Height ..................... 10.3 ft

AVAILABILITY

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

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<tr>
<th>(U)</th>
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STATUT

1. Contract date ............ 20 Feb 59 4. CAT II ..................... Start Oct 60
2. First delivery ............ Oct 60 Complete May 62
3. CAT I ..................... Start Apr 61 Complete Sep 61
      5. CAT III ..................... Start Apr 61
      6. Operational date ........ Jun 61

Navy Equivalent: None

Mfr's Model: 631

POWER PLANT

RAMJET (CRUISE)
Nr & Model ............. (2) RJ 43-MA-11 Mfr ........ Marquardt
Thr (lb) (nom cruise) ................ 1435 Altitude (ft) ........... 70,000
Mach ...................... 2.7

ROCKET MOTOR (BOOST)
Nr & Model ............. (1) M-51 Mfr ........ Thiokol
Thr (lb) (nominal) .... 43,700 Duration (sec) .......... 32.2

FEATURES

Mono-wing, tail control configuration
Modified delta wing, 50° sweepback
Pressure fed propellant system
Prov. for kit installation of command destruct system
for testing and training
Target Search Capability
MK-40-Y1 Mod 0 Nuclear Warhead

GUIDANCE

Missile control is integrated with SAGE system
LAUNCH: Follows pre-set course
MID COURSE: Ground Mark X
SIF Radar tracking
Airborne Transponder
Transfer from pre-set control to mid-course guidance is automatic
SEARCH: Accomplishes at 40,000 ft when using Low-Alt-Search-Option (LASO)
TERMINAL: AN/DPN-53 Homing System
### Characteristics Summary: Basic Mission

**Performance**

<table>
<thead>
<tr>
<th>ENDURANCE</th>
<th>RANGE</th>
<th>SPEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 min</td>
<td>Aerodynamic Capability 95% Probability 420 n. mi. at High Alt 280 n. mi. at Low Alt with 385 lb payload at 2.70 M</td>
<td>CRUISE M = 2.70 at 71,000 ft SEARCH M = 2.70 at 71,000 ft M = 2.35 at 40,000 ft</td>
</tr>
</tbody>
</table>

**Launching**

Launched automatically from individual weather protected shelters. Booster rocket ceases firing at approximately 40,000 ft. Ramjets ignite at approx. 5000 ft and take over full propulsion at boost burnout.

**Climb**

2600 fps at boost burnout

**Altitude**

- High Alt. Mission
- Low Alt. Search Mission
- Cruise ........ 71,000 ft
- Search ........ 40,000 ft

**Load**

<table>
<thead>
<tr>
<th>Warhead</th>
<th>*385 lb</th>
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<tbody>
<tr>
<td>*Includes associated equipment</td>
<td></td>
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<table>
<thead>
<tr>
<th>Propellants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocket ....</td>
</tr>
<tr>
<td>Ramjet ....</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Weights</th>
<th>Target Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty ....</td>
<td>6384 lb</td>
</tr>
<tr>
<td>End Cruise ...</td>
<td>6848 lb</td>
</tr>
<tr>
<td>Launch ....</td>
<td>.16,032 lb</td>
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</tbody>
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<tr>
<th>Notes</th>
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</table>
| 1. Performance Basis: 
   (a) System analysis and flight test data. 
| 2. Revision Basis: To show changes to data in Power Plant and Load blocks. Also to indicate reclassification of security coverage of data contained in each block. |