# Characteristics Summary

**STRATEGIC MISSILE . . . . . . SM-62 A**

<table>
<thead>
<tr>
<th>Ref Wing Area (does not include leading edge or trailing edge extensions)</th>
<th>Length</th>
<th>.688 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span</td>
<td>.423 ft</td>
<td>Height</td>
</tr>
</tbody>
</table>

## AVAILABILITY

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

## STATUS

1. Design Initiated (Guidance System): Mar 46
6. Completion of R&D: May 58
7. Availability of Standard Article: May 58

Navy Equivalent: None

Mfr's Model: N-72

## POWER PLANT

- (1) J35-P-17
- Pratt & Whitney

**ENGINE RATINGS**

- SLS: 10,500 lbs
- RPM: 5960
- MIN: 8150/9900
- Mil: 30
- Norm: 9000
- 5960/9650 Cont
- *Low spool/high spool*

*Based on manufacturer's recommended limits. For an engine installed in a tactical missile, however, no time limit is imposed since the engine is considered to be expendable.

**BOOSTER**

- Nr & Model: X-226-A3 Solid Rocket
- Mfr: Allegheny Ballistics Lab
- Thrust: 130,000 lb
- Duration: 4 sec

## FEATURES

- Wing: Low thickness ratio, high aspect ratio, and high degree of sweepback. Lateral and longitudinal control maintained by elevons on trailing edge.
- Fuselage: Houses warhead, fuel, power plant, and guidance equipment.
- External Fuel Tanks: Carried on pylons mounted beneath the wings and dropped when empty.
- Warhead: Delivered through release of missile ballistic nose section.
- Maximum Fuel Capacity: 3866 gal

## GUIDANCE

- Model: Mark I*
- Mfr: Northrop Aircraft, Inc.
- Type: Inertial, aided by stellar monitoring and airspeed damping.

*Includes N-80 Autopilot
### Characteristics Summary: Basic Mission

#### Performance

**Launching**
- Mobile short rail platform
- Preparation and launch time:
  - Twenty per cent of the missile stockpile will be launched by D + 3 hours. The balance of the in-commission missiles will be launched by D + 9 hours.
  - To meet this requirement, all missiles will be assembled, launched-mounted, fueled, and will have warheads and boosters installed.

**Range**
- **5210 nautical miles**
  - with 6230-lb warhead
  - at 518 knots avg cruising speed
  - in 10.0 hours

**Speed**
- Climb speed schedule is 365 knots calibrated airspeed below 27,500 feet and M= 0.90
- Thereafter: military power
- 516 knots at military power, over the target at 49,500 feet

**Climb**
- 3160 fpm at sea level
  - 49,000 lb (launch weight) military power

**Altitude**
- Launch
- Begin cruise: 29,900 ft.
- End cruise: 42,500 ft.
- Altitude over: 49,500 ft.

**Weights**

<table>
<thead>
<tr>
<th>Fuel</th>
<th>Loading</th>
<th>Lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuselage</td>
<td>Empty (not including warhead)</td>
<td>17,230</td>
</tr>
<tr>
<td>Ballistic Nose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pylon Tanks</td>
<td>Launch with Pylon Tanks (without boosters)</td>
<td>49,000</td>
</tr>
<tr>
<td></td>
<td>(with boosters)</td>
<td>80,385</td>
</tr>
</tbody>
</table>

**Target Accuracy**
- 50% within 2 nautical miles

### Notes
1. Performance Basis:
   - Estimated data
   - ICAO Standard Atmosphere and zero wind
2. Revision Basis:
   - To present current Northrup Aircraft, Inc. performance and characteristics data for the SM-62A missile.