**Characteristics Summary**

**TACTICAL MISSILE (RFML)**

**MGM-13B (TM-76A)**

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**“MACE”**

**Length**

44.2 ft

**Height**

9.7 ft

**Width**

151.5 sq ft

**Span**

22.9 ft

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**Availability**

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

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**Procurement**

Number to be delivered in fiscal years

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**Status**

1. First YMGM-B (formerly YTM-61B) . . . Oct 55
2. First synthetic film flight . . . . . Apr 58
3. Production . . . . . May 58
4. End of R&D . . . . . Apr 59
5. Squadron deployment . . . . Apr-May 59
6. Rapid Fire Multiple Launch (RFML)
7. Posture proved . . . . . . . May 60
8. RFML incorporated tactically . . . Oct 61
9. MGM-13B being converted to non-recoverable target drone - MQM-13A.

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**Power Plant**

(1) J53-A-41

Allison

**Thrust Ratings**

S.L.S. LB - RPM - MIN (Inflight)

Max: 5200 - 12,150 - 30

Nor: 4600 - 11,750 - Cont

**Booster**

Nr & Model . . . (1) * M-16E1-3

Mfr . . . . Thiodol Chem. Corp

Thrust (lb) . . . . 101,152

Duration (sec) . . . 2,67

Nominal (70°F)

*With TUX-IS-140 igniter

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**Features**

Tactical Missile capable of destroying targets thru low-level approaches

Swept shoulder type wing

"T" type tail

Self-contained guidance

All weather operation

Low level operation reduces vulnerability to enemy radar detection

Rapid Fire Multiple Launch permits all alert missiles to be launched in approx 10 minutes in salvos of 4

Launched from zero length launcher from hardened sites with assist from booster rocket

Max Fuel Cap: 1029 gal

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**Guidance**

(a) INITIAL:

Programmed Pitch and Air-speed Control

(b) MID-COURSE:

ATRAN map-matching from lock-on point to end of mission

(c) TERMINAL:

None---Missile detonation programmed at end of mission

CONTROL

Auto-pilot

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(AFG 1, Addn 93) (53 of 86)
## Characteristics Summary Basic Mission

**MGM-13B (TM-76A RFML)**

![Diagram of cruise range](image)

### PERFORMANCE

<table>
<thead>
<tr>
<th>ENDURANCE</th>
<th>RANGE</th>
<th>SPEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT APPLICABLE</td>
<td>633.2 naut mi.</td>
<td>CRUISE 470 knots at 750 ft alt, power 11,280 RPM (96% RPM)</td>
</tr>
<tr>
<td>with 1700 lb payload</td>
<td>750 ft</td>
<td>11,280 RPM (96% RPM)</td>
</tr>
<tr>
<td>at 470 knots avg.</td>
<td>622.3 n. mi</td>
<td></td>
</tr>
<tr>
<td>in 1.35 hours</td>
<td>750 ft</td>
<td></td>
</tr>
</tbody>
</table>

### LAUNCHING

Ground launched from hardened sites on Zero-lb length launcher. No catapult or runway required but a RATO booster is used for additional thrust.

### CLIMB

<table>
<thead>
<tr>
<th>CLIMB</th>
<th>ALITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2200 fps sea level, initial climb wt., max power</td>
<td>Begin Cruise 750 ft.</td>
</tr>
<tr>
<td>2110 fps 750-3000 ft alt. final climb wt., 11,280 RPM (96% RPM)</td>
<td>End Cruise 756 ft.</td>
</tr>
</tbody>
</table>

### LOAD WEIGHS TARGET ACCURACY

<table>
<thead>
<tr>
<th>Payload: 1700 lb</th>
<th>Empty 8904 lb</th>
<th>SYSTEM CEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel: 1029 gal</td>
<td>Launch 18,569 lb</td>
<td>Guidance CEP . . . 1310 feet</td>
</tr>
<tr>
<td>protected 0%</td>
<td>(see note c)</td>
<td>Weapon System CEP . . .</td>
</tr>
<tr>
<td>droppable 0%</td>
<td></td>
<td>. . . . . . . 1510 feet</td>
</tr>
<tr>
<td>external 0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### NOTES

1. PERFORMANCE BASIS:
   (a) Estimated data
   (b) Missile is detonated at altitude at end of mission
   (c) Includes weight of booster rocket

2. REVISION BASIS: Data coordinated by (WHAMA) To reflect conversion to non-recoverable target drone (MGM-13A).