Characteristics Summary

**TACTICAL MISSILE . . . . . . . . . TM-61A & C**

"MATADOR"

**MARTIN**

Wing Area .......................... 176.7 sq ft  
Length ................................ 39.7 ft  
Span .................................. 27.9 ft  
Height ................................ 9.7 ft

**AVAILABILITY**  
**PROCUREMENT**

<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. Matador Project Initiated: Aug 45  
3. TM-61A-1st USAF Launch: Mar 53  
4. TM-61C-1st Launch: Jan 56  
Navy Equivalent: None

5. Externally the TM-61C is the same as the TM-61A. The principal difference from the TM-61A is the addition of SHANICLE hyperbolic mid-course guidance system equipment.  

**Mfr's Model:** .......

**POWER PLANT**

(1) J33-A-37  
Allison

**THRUST RATINGS**

| S.L.S. | LB - RPM - MIN | Max: 4600 - 11,750 - 5 | Mil: ________________ | Nor: 4600 - 11,750 - Cont |

**BOOSTER**

No. & Model (1) . . . . T-50  
Mfr. . . . . Picatinny Arsenal

Thrust (lb) ................ 57,000  
Duration (sec) ............ 2.4

*Nominal

**FEATURES**

Shoulder-type swept wing; "F" type tail  
Honeycomb construction used in airfoil sections  
Finger type spoilers for lateral control  
All movable stabilizer  
Monocoque fuselage with flush type air inlet  
Alternate modes of mid-course guidance available for TM-61C version

Max Fuel Cap: 404.8 gal

**GUIDANCE**

(a) INITIAL: Fixed bias pitch control plus programmed air speed control  
(b) MID-COURSE: MARC - (AN/MSQ-1 radar track and AN/APW-11A airborne beacon) for TM-61A  
MARC plus SHANICLE hyperbolic for TM-61C  
(c) Programmed semi-ballistic, zero-g dive

CONTROL  
Electro-hydraulic autopilot

CONFIDENTIAL

TM-61A & C

57 WE 4783

4 SEP 56

CONFIDENTIAL
### Performance

#### Endurance

NOT APPLICABLE

#### Range

<table>
<thead>
<tr>
<th>(see note b)</th>
<th>600 naut mi. with 3000 lb payload at 512 knots avg. cruise in 1.25 hours</th>
</tr>
</thead>
</table>

#### Speed

MAX 512 knots at 44,000 ft alt, mil power

### Launching

Ground-launched from a zero length launcher with additional boost provided by a T-50 rocket.

### Climb

4900 fpm sea level, launching wt., max power

### Altitude

Begin Cruise 43,049 ft. End Cruise 44,200 ft.

### Load Weights Target Accuracy

<table>
<thead>
<tr>
<th>Warhead: 3000 lb</th>
<th>Empty 9203 lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel: 404.8 gal</td>
<td>Launch 13,593 lb</td>
</tr>
<tr>
<td></td>
<td>*(see note c)</td>
</tr>
</tbody>
</table>

### Notes

1. PERFORMANCE BASIS:
   (a) Calculated data based on Wind Tunnel data and Preliminary Flight Tests
   (b) Maximum Guidance Range using MARC equipment is limited to 175 nautical miles.
   Maximum Guidance Range using SHANICLE equipment is limited to 220 nautical miles.
   (c) At 185 nautical miles, CEP varies with range and guidance orientation.

2. REVISION BASIS: Data recoordinated this date.