Fire Commands for the M60A3 Tank
Booklet 3
Ammunition/Weapon Selection

Kraemer, Ronald E.

US Army Research Institute for the Behavioral
and Social Sciences, 5001 Eisenhower Ave.,
Alexandria VA 22333-5600

Approved for public release; distribution unlimited.

Research was performed to develop tank gunnery sustainment training materials for
M60A3 armor commanders. This research product consists of 6 booklets for use by tank
commanders in maintaining their knowledge and skill in issuing basic fire
commands. The first booklet (RP 83-01A) provides an overview of fire command
knowledges and contains training notes. The remaining five booklets provide
practice in: classifying threats (RP 83-01B); selecting ammo/weapons (RP 83-01C); sequencing fire command elements (RP 83-01D); issuing fire commands for single
engagements (RP 83-01E); and issuing fire commands for multiple and (continued)
simultaneous engagements (RP 83-01F).
FIRE COMMANDS FOR THE M60A3 TANK

BOOKLET 3

AMMUNITION/WEAPON SELECTION

U.S. ARMY RESEARCH INSTITUTE
FOR THE BEHAVIORAL AND SOCIAL SCIENCES

RESEARCH PRODUCT
RP 83-1-C

86 2 25 113
BOOKLET NUMBER 3

AMMUNITION/WEAPON SELECTION

USER'S GUIDE

This is booklet number 3 in a set of six booklets. The set deals with issuing fire commands on the M60A3 tank. When you have finished the complete set you will be able to:

ISSUE A CORRECT FIRE COMMAND FOR THE MAIN GUN OR ANY MACHINEGUN IN EITHER SINGLE, MULTIPLE OR SIMULTANEOUS TARGET ENGAGEMENTS.

BACKGROUND

In order to issue the correct fire command, you must be able to select the best ammunition/weapon for the target you are going to engage.
This booklet will give you practice in selecting ammunition/weapon for engaging different targets.

The booklet contains battlefield scenarios. Each scenario includes:

- A picture of the battlefield.
- A short written description of the battlefield situation.
- A question for you to answer.
HOW TO USE THIS BOOKLET

1. Look at the scenario picture.
2. Read the written description.
3. Read the question following the description.

SOME QUESTIONS ARE FOLLOWED BY A LIST OF POSSIBLE ANSWERS. FOR THESE QUESTIONS, YOU SHOULD SELECT THE CORRECT ANSWER.

SOME QUESTIONS DO NOT HAVE ANSWERS. FOR THESE QUESTIONS YOU MUST PROVIDE YOUR OWN ANSWER.

4. Check your answer with the Answer Key on the page following the scenario.
5. Refer to:
   - FM-17-12-3
   if you have any further questions.
BEFORE YOU USE THIS BOOKLET
Before you use this booklet, be sure you have completed booklets 1 and 2 of this set.

TANK COMMANDER TRAINING NOTES
Training notes are presented in booklet 1.
THE SITUATION

- You are in a deliberate attack.
- A T-72 is at 1000 meters, direct front.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>SABOT</td>
<td>HEAT</td>
<td>HEP</td>
<td>COAX</td>
<td>CAL 50</td>
</tr>
</tbody>
</table>
SCENARIO 1 ANSWER

You should have selected A: SABOT

SABOT is the primary round for use against armor at ALL RANGES.
WRONG ANSWERS

B. HEAT is the second best round against armor. It is used if you are out of SABOT or if it is in the tube and you do not have time to reload.

C.

D. Not designed to defeat armor.

E.
THE SITUATION

- You are in a deliberate attack.
- A BM-21 mounting a 122mm rocket launcher is approaching at 2000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

A  B  C  D  E
SABOT  HEAT  HEP  BEEHIVE  COAX
SCENARIO 2 ANSWER

You should have selected C: HEP

HEP is the best ammo to use against trucks and unarmored vehicles. However, once HEP is phased out of the inventory HEAT ammo will be the correct answer. This is specifically true NOW if you were in a degraded mode and had to apply a HEP manual lead at 2000 meters. NOW.
WRONG ANSWERS

A. Not recommended.
B. Second best ammo to use.
C. Not used.
D. Target is out of range.
THE SITUATION

- You are in a deliberate attack.
- A BM-21 mounting 122mm rocket launchers is approaching at 400 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the BM-21 at this range?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>HEAT</td>
<td>HEP</td>
<td>BEEHIVE</td>
<td>CAL 50</td>
<td>COAX</td>
</tr>
</tbody>
</table>
SCENARIO 3 ANSWER

You should have selected E: COAX

The COAX is very accurate and effective at a range of 400 meters.

By using the coax you will save the CAL 50 ammo. There is a lot more 7.62 ammo than CAL 50 ammo on the M60A3.
WRONG ANSWERS

A.

B. } Target is too close to use the main gun.

C. 

D. Should save CAL 50 ammo for targets at greater ranges.
THE SITUATION

- You are in a deliberate attack.
- A 152mm self propelled howitzer is direct front at 1500 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the target at this range?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>SABOT</td>
<td>HEAT</td>
<td>HEP</td>
<td>M240</td>
<td>COAX</td>
</tr>
</tbody>
</table>
SABOT is the best round to use against armor, such as TANKS and TANK-LIKE vehicles (like the 152mm SP howitzer).

SCENARIO 4 ANSWER

You should have selected A: SABOT
WRONG ANSWERS

B. Second best ammo to use.

C.

D. \{ Not designed to defeat armor. \\
E. \}
THE SITUATION

- You are in a deliberate attack.
- A HIND-D helicopter, at 700 meters is hovering 100 meters above the ground.
- M60A3 is fully operational.

What is the BEST ammunition to use against the helicopter at this range?

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>SABOT</td>
<td>HEAT</td>
<td>BEEHIVE</td>
<td>CAL 50</td>
<td>COAX</td>
</tr>
</tbody>
</table>
SCENARIO 5 ANSWER

You should have selected B: HEAT

The best way to engage choppers is using the main gun with a HEAT round. No matter what you use, the probability of getting a hit is quite small. Have at it!
WRONG ANSWERS

A. Second best ammo to use.
C. Not recommended.
D. A good second choice at this range.
E. Should not use.
THE SITUATION

- You are in a deliberate attack.
- A T-12A antitank gun is direct front at 2000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the T-12A at this range?

A     B     C     D     E
SABOT  HEAT  HEP  BEEHIVE  CAL 50
You should have selected B: HEAT

HEAT is the primary ammunition to use against anti-tank targets that are not dismounted.
A. Not recommended.
B. Second best ammo at this range.
C. Not recommended.
D. Target is out of CAL 50 range.
THE SITUATION

- You are in a deliberate attack.
- A man pack SAGGER is being set up at 1100 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the SAGGER at this range?

A  B  C  D
HEP  BEEHIVE  CAL 50  COAX
SCENARIO 7 ANSWER

You should have selected C: CAL 50

The CAL 50 is the best weapon/ammo to use against dismounted anti-tank targets.
WRONG ANSWERS

A. 

B. 

D. Target is not within 7.62mm range.
THE SITUATION

- You are in a deliberate attack.
- Enemy troops are ahead at 1200 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the troops at this range?

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>HEP</td>
<td>BEEHIVE</td>
<td>CAL 50</td>
<td>COAX</td>
</tr>
</tbody>
</table>
SCENARIO 8 ANSWER

The correct answer to B: BEEHIVE

BEEHIVE is the ammo to use against troops at a range of 1200 meters. Remember, in this case the timer on the BEEHIVE round should be set to 1200.
THE SITUATION

- You are in a deliberate attack.
- Three MIG-23 FLOGGER aircraft make a low level run over your position.
- The MIG's turn and start back at you.
- H60A3 is fully operational.

What is the BEST ammunition/weapon to use against the MIG's?

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CAL 5C</td>
<td>SABOT and</td>
<td>HEP and</td>
<td>CAL 50</td>
<td>COAX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HEAT</td>
<td></td>
<td>and CAL 50</td>
<td>COAX</td>
</tr>
</tbody>
</table>
SCENARIO 9 ANSWER

The correct answer is A: CAL 50

Since the MIG's are flying low level, the CAL 50 is used because it can be moved quickly to follow the aircraft. Use a high rate of fire and long bursts.
WRONG ANSWERS

B. Not recommended.
C. HEP is not recommended.
D. COAX will not be able to follow aircraft overhead.
E.
SCENARIO 10
THE SITUATION

- You are in a deliberate attack.
- A BMP mounting SAGGER is direct front at 1000 meters.
- M60A3 is fully operational.

What is the BEST ammunition to use against the BMP at this range?

A  B  C  D  E  
SABOT  HEAT  NEP  CAL 50  COAX
You should have selected B: HEAT.

The primary round against armored personnel carriers, such as the BMP, is HEAT.
WRONG ANSWERS

A. } Second best ammunition.
C. } Only if the main gun in is used against another threat.
D. Target is not within the coax effective range.
The M60A3 Firing Command Booklets are prototype training documents. For comments or questions contact:

Mr. Ronald E. Kraemer
ARL Field Unit-Ft. Knox
ATTN: PERN-1K
Steele Hall
Fort Knox, KY 40121

Automated: 464-4932
Commercial: (502) 624-4932