Military Utility of MOTAPM

Informal meeting 29.08.2017
Functions of Anti Vehicle Mine

- **Weapon** – Disable destroy tanks, other armoured vehicles, other vehicles.

- **Obstacle** - Combinations of MOTAPM in minefields provide a quick active obstacle

- **Force deployment and exposure of En mine clearance assets**
Fuze design

- Infra-red / Heat
- Magnetic field
- Sound/acoustic
- Seismic vibrations
- Ground pressure
Tactical obstacles
Combined with anti-armour weapons and terrain in integrated plans
Protective obstacles
Protection of borders, installations
Nuisance or Point minefields
Ambush weapons
Obstacle Planning

> Integrated obstacle plan including
  > Natural obstacles
  > Demolitions
  > Route Denial
  > Wire obstacles
  > Anti-tank ditches
  > Minefields (Active obstacles)

> Coordinated with anti-armour fire plan and manoeuvre plan
Fixing
Obstacle

Fix

KA
<table>
<thead>
<tr>
<th>Obstacle Effect</th>
<th>Requirement</th>
<th>Obstacle Type</th>
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</thead>
<tbody>
<tr>
<td>Disrupt</td>
<td>Light density obstacles across half of Avenue of Approach</td>
<td>Anti-tank ditch, Wire, or a series of 250m light density minefields</td>
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<tr>
<td>Fix</td>
<td>Medium density linear obstacles across half of Avenue of Approach</td>
<td>ATD, or a series of 500m medium density minefields overlapping in depth</td>
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<tr>
<td>Turn</td>
<td>Light density linear obstacles across full Avenue of Approach</td>
<td>ATD, Wire, or a series of 250m light density minefields in depth</td>
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<tr>
<td>Block</td>
<td>Heavy density linear obstacles across full Avenue of Approach</td>
<td>Heavy density MFs across full width of AoA, or a series of 500m light density MFs with 500m medium density MFs in depth</td>
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</tbody>
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Tactical Minefields

Integral part of tactical plan

Break up enemy advance, channel and delay,

Up to 2km wide and 1km deep 6-9 rows of mines

Covered by anti-armour fire
Protective Minefields

Close-in protection for military unit, vital installation etc

80-200m deep

40m minimum from forward trenches

Covered by anti-armour and small arms fire
Protective Minefield

IOE – Irregular outer edge

3 ROWS
Other Minefield Types

Nuisance Minefields.
To harass or demoralise the enemy

Phoney Minefields
To simulate minefields as part of deception plan

Interdiction Minefields
- Remotely deliverable mines (RDMs)
- Against enemy manoeuvre forces
- Fixed installations such as airfields
Negative impacts on Military Utility

> Does not distinguish between enemy and friendly forces

> Denies areas to friendly force movements

> Creates clearance burden at end of active hostilities

> Victim operated weapon - risks to military and civilian activities
Humanitarian concerns

Persistent fuzes
Mines laid outside perimeter marked areas
Sensitivity of fuze systems
  Pressure activated contact mines
  Trip wires, break wires, tilt rods
Detectability of mines
Remotely delivered mines
Challenge

- Preserve military utility while reducing humanitarian harm arising from use.
- Identify procedures and technical features that will enhance protection of civilians and facilitate rapid post-conflict clearance.
- Maximise implementation of APII and national policies on MOTAPM use.