Target Detection
<table>
<thead>
<tr>
<th>Action</th>
<th>Conduct an Introduction to Mid Range Marksmanship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions</td>
<td>In a classroom and field environment, given a M4-Series rifle, M4 Rifle magazine, Advance Combat Optical Gunsight (ACOG), and small arms maintenance equipment.</td>
</tr>
<tr>
<td>Standards</td>
<td>Apply the fundamentals of Mid Range Marksmanship training with an M4 Rifle and ACOG IAW TC 3-22.9 Rifle Marksmanship M4 Series Weapons to engage targets at ranges from 100-600 meters.</td>
</tr>
<tr>
<td>Learning Domain - Level</td>
<td>Cognitive - Applying</td>
</tr>
<tr>
<td>JPME I Learning Areas Supported</td>
<td>None</td>
</tr>
</tbody>
</table>
What is a target indicator?

- Target indicators are anything that the enemy does or fails to do that can enable you to detect his presence, installation, or his equipment and weapons.
- There are four of target indicators that can aid you in detecting the enemy’s presence.
Target indicators are grouped into 4 types:

- Olfactory (Smell)
- Tactile (Touch)
- Auditory (Sound)
- Visual (Sight)
Olfactory Indicator

- Olfactory indicator refers to the ability of smell.

- Fire, food, and smoking are all examples of olfactory indicators of the enemy’s presence.
Tactile Indicators

- Tactile indicators refer to the sense of touch.

- Items such as trip wires that you may feel while moving are tactile indicators of the enemy’s presence.
Auditory Indicators

- The auditory indicator concerns the sense of hearing.

- Sound carries great distances, especially at night.

- Sounds similar to vehicles, generators, talking, or construction could indicate the possible presence of the enemy.
Visual Indicator

• The visual indicator is the sense of sight.

• This is the most frequently used target indicator.

• When used in conjunction with optical aids (Binos/ACOG) greatly increases your ability to detect hostile targets.
Target Detection

• There are eight factors that can aid in the ease or difficulty of your ability to observe objects. These factors are:
  – Shape
  – Shadow
  – Silhouette
  – Surface
  – Spacing
  – Setting
  – Color
  – Movement
Shape

- Some objects can be recognized instantly by their shape, particularly if it contrasts with the background. At a distance the outline of objects can be recognized well before the details of makeup can be determined. Unless the outline has been altered, the human body and the equipment a soldier carries are easily identifiable.
- Areas of importance when considering shape during observation are:
  - The clear-cut outline of parts of or all of a soldier and/or his equipment
  - Man made objects with geometric shapes
  - Geometric shapes which do not occur in nature on a large scale
Shadow

• In sunlight an object or a man will cast a shadow that can give away his presence. Shadows may be more revealing than the object itself. Where light is excessively bright, shadows will look especially black. Contrast will be extreme. This requires you to “isolate” the shadow area from the bright sunlight so that your eye can adapt to the shadow.
Silhouette

• Any object against a contrasting background is conspicuous. Any smooth, flat, background, such as water, a field, or the sky will cause an object to become well delineated.

• Special care must be taken when searching areas with an uneven background because it is more difficult to detect the silhouette of an object.
Surface

• If an object has a surface that contrast with its surroundings, it stands out. Objects with smooth surfaces will reflect light and become more obvious than an object with a rough surface that casts shadows on itself. An extremely smooth object becomes shiny, and reflections from a belt buckle, watches, or optical devices can be seen over a mile away. Any shine should attract your attention.
Spacing

• Nature never places objects in a regular, equally spaced pattern

• Only man uses rows and equal spacing.
Setting

- Objects, colors, shapes, textures, etc, that do not belong in the immediate surroundings are obvious and become readily detectible. This should arouse your curiosity and drive you to investigate the area thoroughly to explain this existence as natural or man made.
Color

• The greater the contrasting color, the more visible the object becomes. This is especially true when the color is not natural for that area. Color alone will usually not identify the object, but it often is an aid in locating the object.
Movement

- This is the most common reason the enemies position is seen but will seldom reveal the identity of an object. Even when all other indicators are absent, movement will give a position away.

- A stationary object may be impossible to see and a slow moving object difficult to detect, but a quick or jerky movement will be seen. Peripheral vision detects movement better than direct vision. When movement is detected with peripheral vision then the area must be searched to explain that movement.
Any of these Factors may be detected in conjunction with any other. Do not look for specific objects, they are more difficult to see than the eight factors that cause things to stand out. Trust your eyes and when you notice something that is not quite right, investigate and prove that it is or is not right.
Types of Searches

- There are two types of searches you must conduct when observing an area for presence of the enemy.
  - Hasty Search (Quick)
  - Detailed Search (Deliberate)
Hasty Search

- A hasty search is a very rapid search for enemy activity in the area.
- The hasty search begins at the point closest to your position.
- To conduct a hasty search, make swift glances up the middle of the area to the farthest point away from your position.
- The same technique is then used to the left and right of center.
Hasty Search

• When you conduct a hasty search, DO NOT sweep your eyes across the terrain in one continuous panoramic movement.

• The eye can not see detail or movement unless it comes to rest at a specific point.

• There are two techniques used in conjunction with the hasty search, Scanning and searching.

• In the hasty search scanning, the movement from one point to the next, is used more than Detailed (Deliberate) searching.
Detailed Search

• The detailed search commences immediately after the hasty search.

• The detailed search is conducted using a pattern to insure that no area is omitted.

• This pattern is called the 50 meter overlapping strip method, 50 meters deep with 10 meter overlap.

• The shooter searches an area from Right to Left 50 meters deep.
Detailed Search

• At the Left limit, come back to the Right overlapping your search pattern by 10 meters.
• This will continue until you have thoroughly searched your area in depth.
• After the detailed search return to the hasty search to maintain observation of the area.
• Pay special attention to those areas noted in your detailed search as likely areas of approach or activity.
Questions?/PE
HASTY
Shape
Shadow
Silhouette
Surface
Spacing
Setting
Color
Movement