# Mini-Nap 2: Artillery Overhead Fire Guidelines

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These artillery overhead fire guidelines were specifically developed for use with the *Mini*-Nap 2 Napoleonic wargame rules. They were developed to help players determine whether a friendly artillery unit can fire overhead at an enemy unit where there are any units and/or any terrain features such as a contours, hills, woods, villages, etc, in-between.

In the rules, all close range fire is deemed to be using canister. Obviously, firing canister over friendly troops with would be very hazardous indeed to those friends in-between. Therefore, a player cannot fire over any friendly troops at point blank range or at close range. Muskets cannot be fired overhead in any circumstances.

The basic overhead fire process uses four steps and will be shown using some examples.

## Step 1

First, the player checks to see if the target is in range. For artillery units:

Point Blank Range = 0 cm to 10 cmCannot fire overhead = 10 cm to 20 cm Cannot fire overhead Close Range = 10 cm to 20 cm = 20 cm to 40 cm

Medium Range = 40 cm to 80 cm Long Range

# Step 2

Next, the player checks the number of levels difference between the contour on which the artillery unit is standing and the contour on which the target is standing. If the target is:

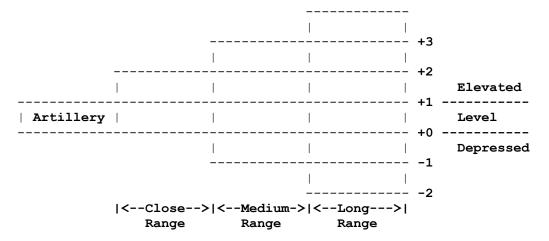
*Higher* than the firer then the target is *Elevated* At the same level as the firer then the target is **Level Lower** than the firer then the target is **Depressed** 

For example, if the target is one level lower than the artillery unit firing, then if the target is:

- Between 20 cm and 40 cm in range, the shot would be a medium range depressed shot
- Between 40 cm and 80 cm in range, the shot would be a long range depressed shot

### Step 3

Next, if the target is within range, then the player checks to see if any units and/or terrain features between the artillery and the target prevent the shot. The procedure uses *the overhead fire diagram* shown below:



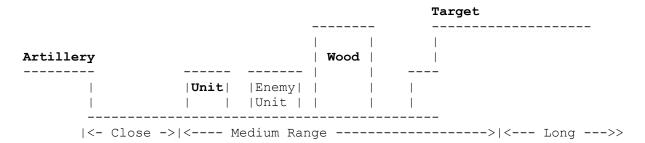
Mini-Nap 2 is available as a free download at www.runtus.org

#### Effect of terrain features:

All units, mounted, foot, artillery or command, are deemed to be one level high. Otherwise, the height of all terrain features must be agreed to by the players before the game. For example, woods could be two or three levels high, hills two, three or four levels high, a village one level high, hedge rows zero levels high, etc.

## An example:

A friendly artillery unit on a one level contour wishes to fire overhead at an enemy target on a two level hill opposite. A quick check of the artillery unit's zone of fire reveals that there is a friendly foot unit, an enemy foot unit and a small wooded area in the artillery unit's zone of fire thus:



#### Effect of units in-between:

- A friendly artillery unit can only fire over a friendly unit if that *friendly unit is more than* 9 cm away from the friendly artillery firing
- A friendly artillery unit can only fire over a friendly unit if that friendly unit is more than
   9 cm away from the enemy target unit being fired at
- A friendly artillery unit can fire over any enemy unit at any time

Continuing the above example, a quick check is made and it is found that the friendly unit in-between is more than 9 cm away from the friendly artillery unit wishing to fire, and that same friendly unit in-between is more than 9 cm away from the intended enemy target. The enemy unit in-between can be fired over at any time.

### Effect of the contours on which the artillery and target are standing:

- The contour on which a friendly artillery unit is standing only counts for a depressed shot if that artillery unit is more than 2 cm away from the edge of the contour being shot over. If less than 2 cm from the edge being shot over, then the contour does not affect the shot
- The contour on which a friendly artillery unit is standing has no affect on a level shot or an elevated shot
- The contour on which an enemy target unit is standing only counts for an elevated shot if the target unit is more than 2 cm away from the edge of the contour being shot over. If less than 2 cm from the edge of the contour being shot over, then the contour does not affect the shot
- The contour on which an enemy target unit is standing has no affect on a level shot or a depressed shot

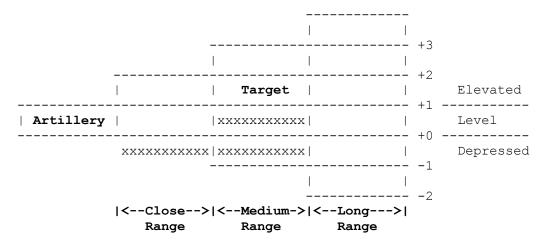
Continuing the example of an elevated shot above, a quick check is made and it is found that the enemy target unit is less than 2 cm from the edge of the contour on which it is standing. Therefore, that contour does not count for an elevated shot.

## Using the overhead fire diagram:

First, the *top* of any unit and/or terrain feature in-between the artillery firing and the target is determined thus:

- 1) The friendly unit in-between is one level high but is standing one level lower than the artillery. Thus, the *top* of the unit is at the same level as the artillery, i.e. level +0
- 2) The enemy unit in-between is one level high but is standing one level lower than the artillery. Thus, the *top* of the unit is at the same level as the artillery, i.e. level +0
- 3) The small wood in-between is two levels high but is standing one level lower than the artillery. Thus, the *top* of the small wood is one level higher than the artillery, i.e. level +1
- 4) The contour on which the target is standing is two levels high but is only one level higher than the artillery. Thus, the *top* of the contour is one level higher than the artillery, i.e. level +1. However, as noted, this contour does not count for overhead fire purposes.

The *top* of these units and features are noted on the overhead firing diagram thus (xxxxxxxxxxx):



# Step 4

Then, to determine whether the target is an eligible target or not, the player must trace a line *from* the *artillery box* through various boxes *into* the *target box* where the target is standing thus:

- 1) The player must first trace a number of boxes *horizontally only*, *then*,
- 2) The player must trace a line number of boxes diagonally only

When tracing a line diagonally:

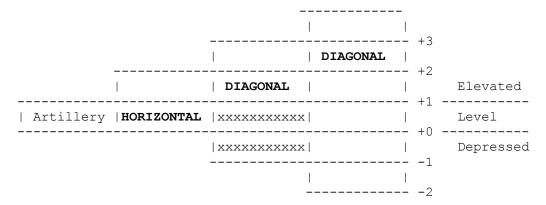
- A line can **only** then be traced **diagonally up** through the boxes, **or**,
- A line can only then be traced diagonally down through the boxes

When tracing a line:

 A line cannot be traced into or through any box that is obscured by other units and/or terrain features (those previously noted by xxxxxxxxxx on the diagram)

The target is an *eligible target* for overhead fire if such a line can be traced from the artillery box into the target's box in the manner described above.

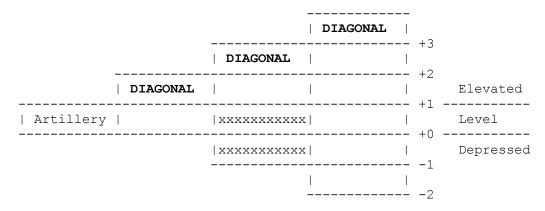
Continuing the previous example, the player traces a line one box horizontally first, and then traces a line diagonally up through two boxes as shown on the diagram below:



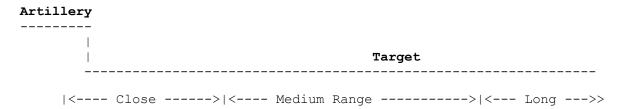
Thus, in this example, the friendly artillery unit can fire overhead at the enemy target because a valid line can be traced into the box where the target is standing without passing into or through a prohibited box (marked xxxxxxxxxxx on the diagram).

Considering this example further, players should note that a target could not be hit if it was at long range because a horizontal line and then a diagonal up line cannot be traced to level +1 and long range.

Players should also note that the player could also trace a line no boxes horizontally, and then trace up three boxes diagonally thus:



Another example: A friendly artillery unit wishes to fire at an enemy target from a one level contour thus:



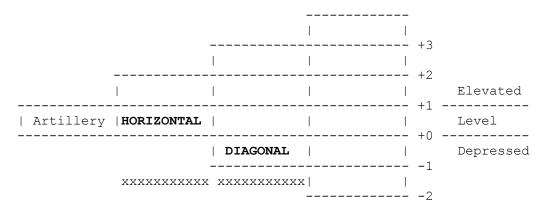
First, the target is lower than the firer and so the shot is a medium range depressed shot.

Next: A check is made and it is found that the artillery unit is less than 2 cm from the edge of the contour being shot over. Thus, the contour level on which it stands *does not count* for depressed firing purposes.

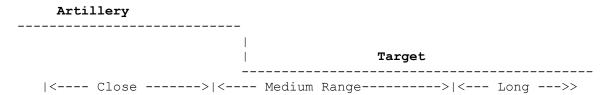
Next: A check is made to determine the highest level of any unit and/or terrain feature between the firer and target. The contour on which the *target* is standing is both at close range and medium range. The top of this contour is at level -1. This is noted on the diagram below thus (xxxxxxxxxxx).

Next: The artillery can trace a line one box horizontally, and then one box diagonally down as shown. The player could also trace a line two boxes horizontally, then one box diagonally down.

Thus, the artillery can hit this target at medium range at level -1.

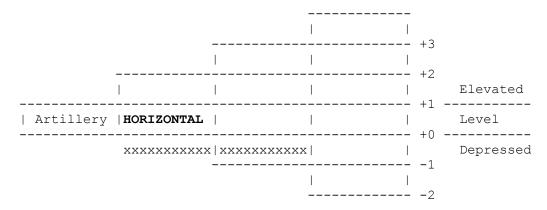


Another example: A friendly artillery unit wishes to fire at an enemy target from a hill thus:



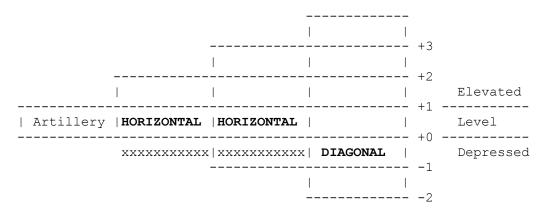
First: The target is lower than the firer thus the shot is a medium range depressed shot.

Next: A check is made and it is found that the artillery firing is over 2 cm from the edge being shot over. Thus, the contour level *counts* for firing purposes. The contour on which the friendly artillery is standing is both at short range *and* at medium range. The top of this contour is at level 0, and is noted on the diagram thus (xxxxxxxxxxxx):

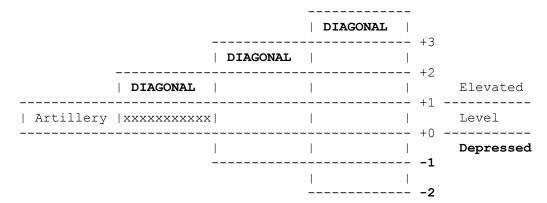


Next: The artillery can trace a line one box horizontally, but no boxes diagonally down at medium range as shown. Thus, the target unit is **obscured by the contour** and so the artillery cannot fire at this target.

However, if the artillery unit moved back to take a long range shot, then the target could be hit because a horizontal line and then a diagonally down line can be traced to level -1 and long range thus:



Another example: If an artillery unit had a one level high terrain feature at close range, then that artillery unit could only fire overhead at target that is two levels higher at medium range or three levels higher at long range thus:



## **Finally**

I hope this all makes sense. Remember, these are only guidelines. If you don't like them then don't use them – make up your own.

# Trevor Raymond

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