

Tobruk Terrain 'Walkaround'

"If you can be seen, you can be hit. If you can be hit, you can be killed."

"The security of the individual soldier and combat vehicle is enhanced when individuals and crews possess terrain awareness. A featureless grid square on a map may, on the desert floor, consist of several small folds, mounts, or sink holes of only 5-15 feet in elevation. In a generally flat area, these features are critical terrain, the proper use of which is essential to survival."

"Training Armor Units For Desert Operations", TC 90-3, US Army Armor School, Fort Knox Kentucky

One of the most challenging aspects assimilating the material provided in the new Advanced Tobruk is understanding the terrain rules. No less personage than hall-of-fame game designer Ted Raicer, when asked what keeps him from tactical-level games, simply replied, "terrain rules." He is not alone.

The new Tobruk is a far cry from its predecessor in that the previous billiard-table game board has been transformed, through the use of moveable terrain pieces known as "overlays", to a map capable of presenting the myriad terrain forms common to the arid Western Desert. In a series of articles in The General, original designer Hal Hock laid out a handful of optional rules depicting terrain. The ATS rules-set, used in the new Tobruk, brings the design full circle.

It is difficult to conceive any person playing Tobruk proficiently without a firm understanding of the terrain rules and how they impact combat potential in a scenario. The aim of this article is to take the gamer 'walkabout' across, up and down the 'folds', 'mounts' and 'sinkholes' found on the Tobruk desert battlefield, clarifying a few points along the way..

FLAT GROUND

No discussion of desert terrain would be complete without talking about the flat, 'billiard-table' the original Tobruk presented terrain as. Anyone that owned the earlier game knows the apparently flat, bright orange play surface had its own 'terrain' in the form of Hull Defilade (HD) opportunities. Any vehicle could find one of these 'undulations' by rolling a '1' on a six-sided die. Thus, despite the graphic depictions expected of map-terrain in a game, Tobruk had 'terrain' everywhere.

Later, the Hull Defilade 'terrain' concept was taken a step further by Hal Hock. It was suggested the gamer 'pencil' a series of hexes, representing rough terrain, that provided increased chances of becoming Hull Defilade (i.e., by rolling a '2', '3', '4' or less). The original approach to finding one of those 'folds' in otherwise flat ground is also found in the new Tobruk. Any hex that contains 'Scrub', an irregular brown spotted terrain scattered all over the map, may provide Hull Defilade

status on a die roll of '1' (on a ten-sided die). A unit that sets up in a scrub hex may make this roll before play begins or any AFV entering using Assault Movement may make a roll to attempt to gain HD status.

Flat ground, also known as 'Open Ground' otherwise does not block Line-of-Sight (LOS) between units in any way. That being said, there are times when LOS is going to be degraded even if it only crosses Open Ground hexes. In the case of 'aerosols', the ability to see the enemy will not be affected. The ability to engage the enemy, in the form of die roll modifiers applied to Hit Probability Table 'to hit' attempts, come into play whenever 'Sun Glare' or 'Heat Shimmer' is in play. Khamsins, desert dust storms, can also cut the distance an LOS may be drawn, severely limiting the range in which units may engage one another. These latter three are only in effect during a scenario by special rule.

MOUNTS

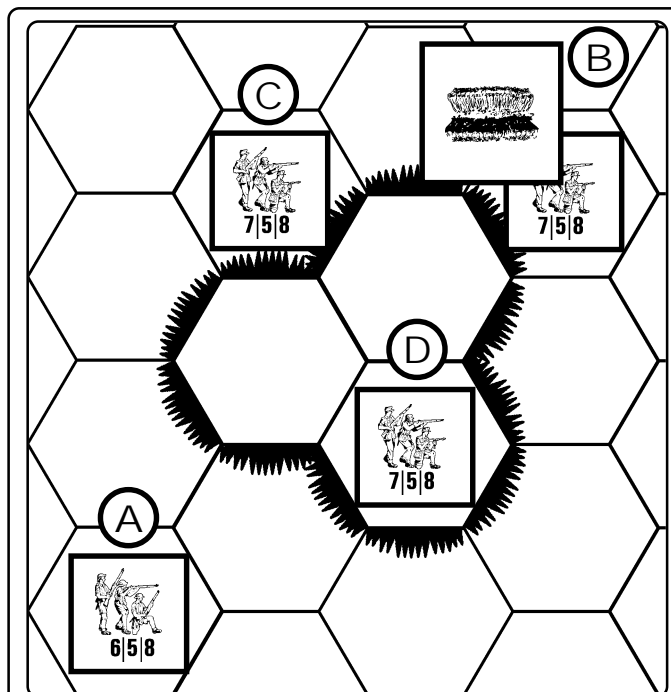
Terrain only rises naturally in the form of 'hillocks' on the Tobruk battlefield. Buildings also allow units to get 'up' in terms of LOS, but we'll talk about them later.

The contour-lines of a hillock are easy to see, provided along hexsides in deep brown. Anyone who has read a topographical map will immediately recognize what they are dealing with here: the highest level, represented by a closed contour line, rolls down to the next

highest level, represented by another closed contour line, and so on.

The funky part about our 'default' hillock feature is that the 'first' contour level up is considered 'Level +5', about the height of the average tank. The next level up is 'Level +10'. If there is another level 'up' on the hillock (e.g., overlay H24, provided in Tobruk expansions 1-2 is the only hillock with a 'third' level at +20) it rises to Level +20. A hillock's contours may instead rise in intervals of +10/+20/+30 instead of the default +5/+10/+20 by scenario special rule.

The above in mind, overlay H3 consists of three hexes that rise to Level +5; overlay H8 has eight hexes at Level +5; H21 has 20



The effects of a hillock on LOS: The British 6|5|8 squad A has no LOS (and vice versa) to German B since B is in FULL cover under the hedgehog. However, A does have an LOS to C, but C is treated as being in GOOD cover. German D derives no cover benefit (but can see over non-burning wrecks and walls) and can be seen by A.

hexes at +5 and two at +10; H35 has 30 hexes at +5 and four at +10; and H24 has 16 hexes at +5, seven at +10, and one at +20.

Before we get to the LOS ramifications of observation from atop or behind a hillock feature, remember that all units must pay an additional one Movement Point to move across a hillock contour (i.e., 'up'). There is no cost or movement benefit to moving down (no skiing in the desert!) This movement penalty applies for each and every contour that is crossed moving 'up', not just the first one on a multi-level hillock.

Now let's place our favorite tank 'up' on a Level +5 hillock hex. Just what does this do for us? Two things. First off, a unit may roll for Hull Defilade whenever 'up' on a hillock—in the same manner as being in a scrub hex, i.e., after all set up or when entering using Assault Movement. If successful, this HD status is *only* good for any LOS traced from units that are *lower* than the target vehicle, i.e., across a contour. Note this LOS does not have to be at a unit in the same hex as the contour—the key is the firing unit is lower than the HD target unit.

Being 'up' on a hillock otherwise provides

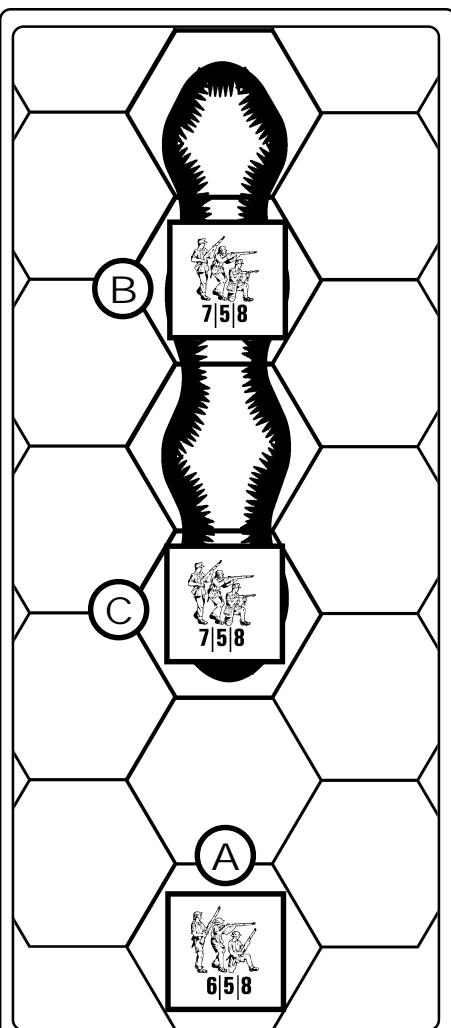
a limited LOS advantage in the form of the ability to see over non-burning vehicle wrecks and walls (only found on 'village' overlays V6 and V17). You are not high enough to see over the smoke of a burning wreck from up there, however (smoke rises to Level +30). You are high enough to deny HD to targets on your same level, however, an advantage that should not be overlooked.

The fun comes in when considering the advantages of being 'behind' a hillock. Let us first consider units immediately behind one, i.e., in the hex touched by a 'down' contour. Personnel in such a spot that also finds itself in FULL cover (e.g., under a hedgehog counter) is completely out of the LOS of all but adjacent units. All other units are considered to be in GOOD cover. Vehicles receive *automatic* Hull Defilade when behind a down contour, good no matter the height of the firing unit.

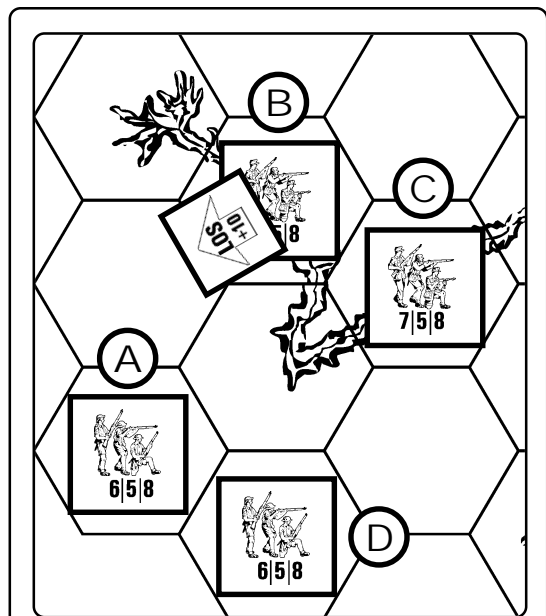
The thing to remember is HD is only created across an 'up' contour by rolling—and that status may be ignored by units on the same or a higher level. HD is automatic for an LOS traced across a 'down' contour, no matter the height of the firing unit. HD across an 'up' contour does not have to be traced to a unit in the same hex as the contour hexside. HD across a 'down' contour has to be traced to a unit in the hex crossed by the contour hexside. Whew!

Now how about those intervening hillocks and their affect on LOS. Let's start with that tank sitting up on a Level +5 hillock. It can see past ONE other hillock, that is past it, to units in Level 0 behind one other hillock along its LOS. However, it can only see as many hexes past that one hillock equal to the firing units height on the battlefield. Thus, a tank 'up' on a Level +5 hillock may see *five* hexes beyond one intervening hillock along its LOS (not counting the hillock it is on). This 'past' Line-of-Sight range is counted with the first non-hillock hex the LOS crosses after hitting the hillock.

One of the most difficult aspects of the hillock rules to understand is that once the terrain rises higher than Level +5, contours really represent 'hills'. They block LOS past them, instead of creating a new layer of 'higher hillocks'. This same effect takes place in any scenario that has special rules calling for hillock contours to represent Level +10 as their first 'ring' of contours. See the ex-



The effects of a deir on LOS: The British 6|5|8 squad A has no LOS (and vice versa) to German B unless B is using Running or Assault Movement. If A was at Level +10 (e.g., up in a building) it could see B. Unit A can see German C, but C receives the benefit of GOOD cover for fire from A.



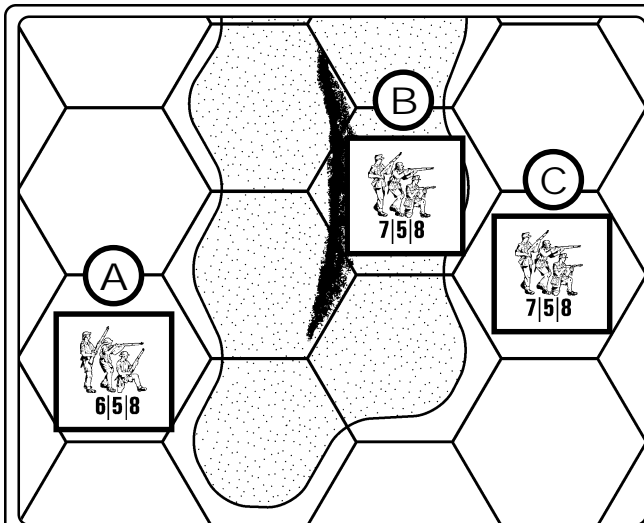
The effects of a wadi on LOS: The British 6|5|8 squad A has no LOS (and vice versa) to German C since C is 'down' in the wadi. It can see German B, since B is 'up', but the latter receives the benefit of GOOD cover to fire from A since it has placed an LOS +10 marker across a hexside that A's fire crosses. Unit B is NOT in GOOD cover to fire from British D as the hexside has a wadi depiction crossing it. Thus, D can still see B, but B is considered in Stationary cover to its fire. In this example the only unit that can see unit C is adjacent unit B.

ample provided in this magazine to clarify the difference between hillock and hill contours.

Sink Holes

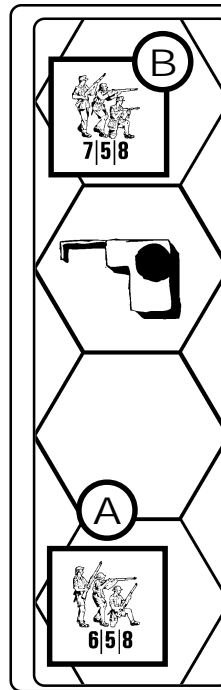
There are two terrain forms that send one 'down' in Tobruk: deirs and wadis. Deirs represent shallow depressions. Wadis are more steeply sided depressions that represent dry stream-beds.

A deir contour acts in the same manner as a 'down' hillock contour, and they slope down to Level -5. It creates automatic Hull Defilade and creates GOOD cover. It is when one peers deeper into a deir that things get interesting. Any personnel unit that is prone (i.e., stationary or using crawling movement in game terms) cannot be seen if the LOS goes beyond the first deir hexside. If these guys are running or using Assault Movement, they



The effects of a sand dune on LOS: The British 6|5|8 squad A has no LOS (and vice versa) to German C due to the intervening sand dune. It can see German B, as the dune is treated as a 'down' contour.

than just hiding. A unit may move 'up' in a wadi hex using crawling or using infiltration (noting the latter must be part of an attack during the Close Assault Segment). From there it will either be in Hull Defilade or GOOD cover. The hardest thing about all this is remembering to place the arrow on an LOS +10 marker to face ONE hexside; it and the two adjacent hexsides (one on each side of the chosen hexside) are the ONLY ones that the unit will derive ANY cover benefit across. Otherwise, treat it as whatever



The effects of a building on LOS: The British 6|5|8 squad A has no LOS (and vice versa) to German B due to the intervening building along the Line-of-Sight. Even if A was at Level +20, it could not see B as the latter would be in a blind hex.

can be seen. That pretty much sums up the effects of deirs.

Note line one of rule 33.42 should read, "Non-running and Assault Moving personnel..."

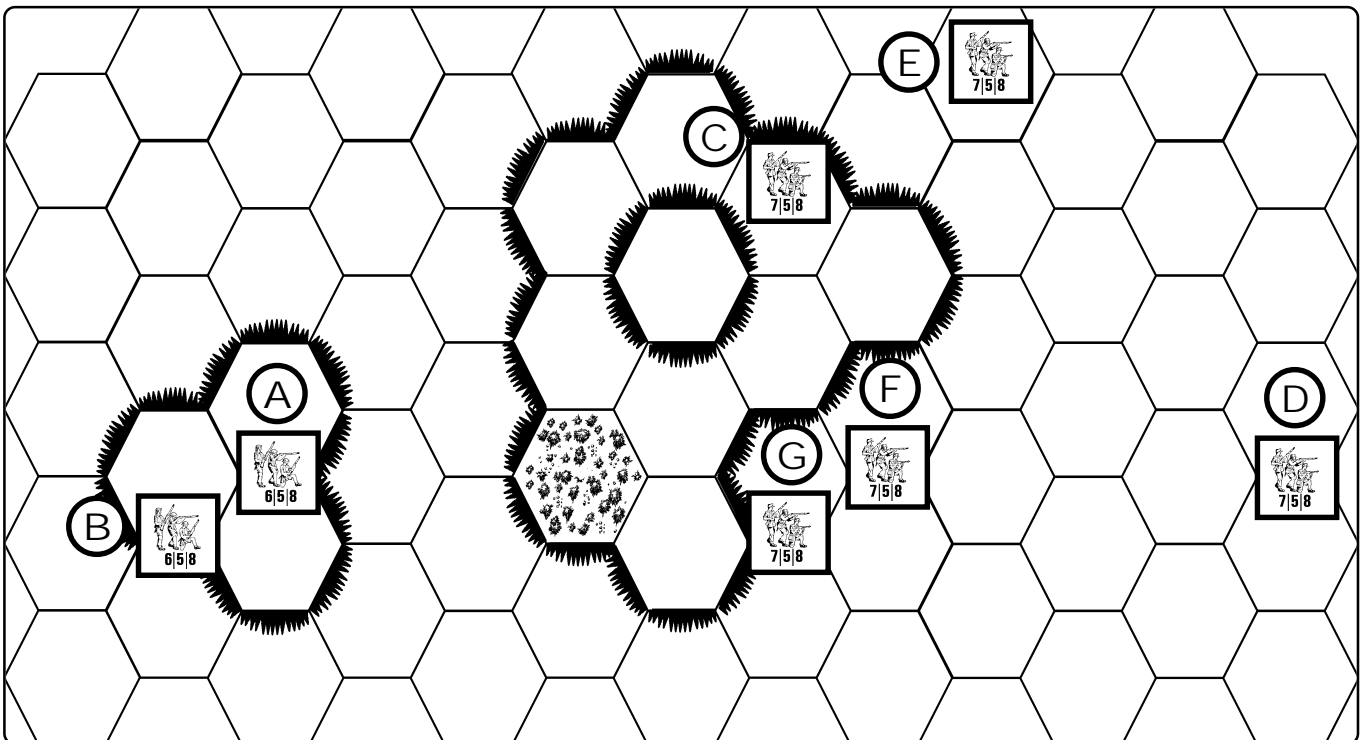
Wadis are narrow but deep, creating Level -10 terrain in their hex. Unless a unit is 'up' in a wadi, or the firing unit is adjacent, you can't see in, and thus can't fire at a unit in a wadi. However, wadis can be used for more

state it is, e.g., stationary if it is just sitting there. Any hexside crossed by wadi art negates the cover benefit.

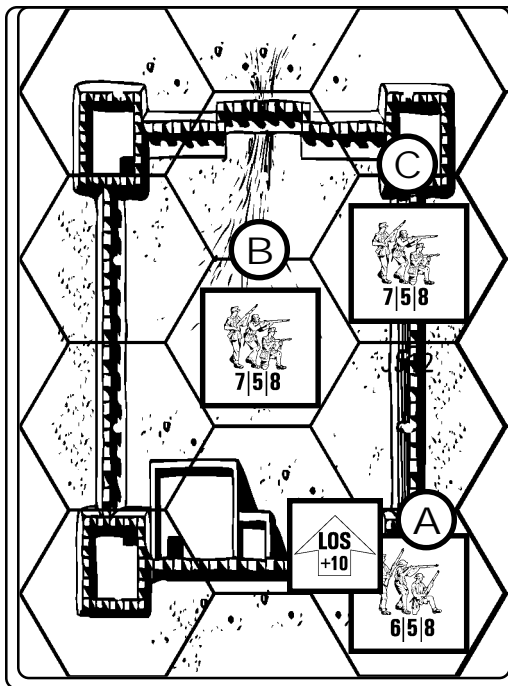
Man Made Terrain Forms

There are three types of man-made terrain forms in Tobruk. The first is the run-of-the-mill wall. These can be used to good effect and are easily understood using the example provided with this article.

Buildings are the most prevalent man-made feature on the map. These come in two flavors: the kind that have a ground level plus a flat-roof and those that rise to Level +20. All of one of the latter is provided, found on overlay V17 and denoted by a large white center dot.



In the new edition of the Tobruk rules Hillocks are treated in the same manner as low, +5 Level hills with a few changes. With the new rules, D cannot see B. F and B also have no LOS. E cannot see B. B can see G, A and C. Note all LOS's are reciprocal. D can see C, G, F and E.



The effects of a fort on LOS: No unit outside the fort may see unit 'B', which is in the 'courtyard', unless the 'door' was open, in which case an LOS could be traced in along the 'door' hexside (only). German 'C' is also out of LOS to any units not within the fort. Unit 'A' can be seen from outside the fort (and vice versa) as it is 'up' in a non-courtyard hex. Unit A receives the benefit of IMPROVED cover and could fire a light or medium weapon from its 'up' position.

The 'standard' Tobruk building has a ground level and a rooftop at Level +10. When a unit is up on the roof, it can trace its LOS from Level +10 and receives GOOD cover only from units at a lower level.

Note the addition to rule 33.922 that clarifies that indirect fire (both on board and off-board) and air attacks are not considered to be from a "lower" hex against units on a rooftop. These types of attacks deny any cover benefit (i.e., the unit is treated as Stationary).

If a unit is NOT on a rooftop, buildings provide IMPROVED cover. And the only difference found in that building on overlay V17, the one with the large center dot, is it has TWO 'levels' above ground level, Level +10 and Level +20. LOS is traced from the appropriate level.

Another clarification to note is that in a Level +20 building, a unit at Level +10 is treated as if on the ground level, i.e., it remains in IMPROVED cover. However, trace LOS from the unit from Level +10.

Forts are the final man-made terrain feature found in Tobruk. These are unique but easy enough to understand using the example provided with this article. The most important thing to note is that

indirect fire may be conducted against units 'down' in the fort in courtyard and side hexes that would otherwise NOT be in LOS.

Note the following clarifications: Spotting Ranges are ignored when using indirect fire against interior fort hexes.

If you see a fort in the distance, by all means lob some shells into it.

Folds

We'll use 'folds' as a good spot to talk about sand dunes. Be mindful of the impact of soft sand, found around sand dunes. No

towing into soft sand, make an Immobilization Table roll for vehicles entering it, and remember the column shift LEFT for HE vs. personnel in soft sand (due to cushioning effects).

The dunes themselves fit into the 'contour' model, albeit with a contour on BOTH sides of the hexside. They block LOS traced across them but a unit in the hex connected to the sand dune art may be seen. They provide no cover advantage. The only difference between a Level +5 and a Level +10 sand dune is how high up you need to be to see over it.

Foliage

It is likely dangerous to say this, but in this writer's opinion, Scrub, Palm Groves and Rock-Strewn terrain forms are easy to understand.

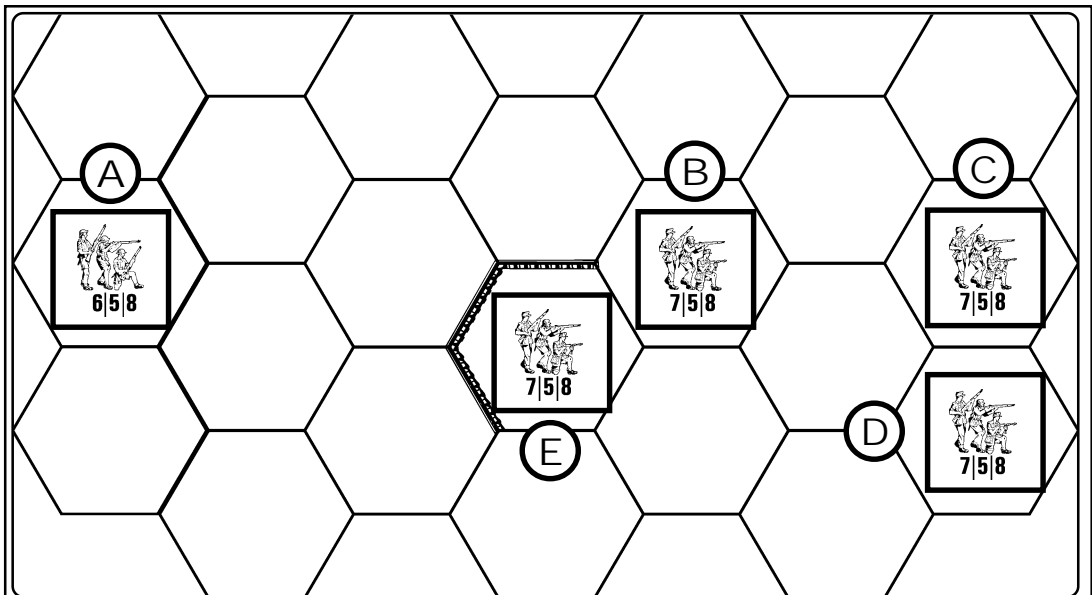
Remember the need to roll on the Immobilization Table when your vehicle enters the rocky stuff, paying TWO movement points for the pleasure.

The most important thing about Scrub is that you can gain HD positions and hide in the stuff.

Palm groves simply affect LOS in the same manner as a non-burning wreck and they 'grow' to Level +10 high.

The Future

Needless to say, upcoming Tobruk system releases will bring in new terrain forms to simulate Normandy, Russian Front, Finnish and Pacific battlefields. If you understand the terrain presented in this article, upcoming modules will be a breeze as all terrain will work with the extant Tobruk model.



The effects of a wall on LOS: The British 6|5|8 squad 'A' has no LOS (and vice versa) to German 'C' due to the intervening wall. Nor may it see unit 'D'. It can see German 'B', as B is directly behind the wall hexside. It can also see German 'E' for the same reason. Both B and E receive the benefit of GOOD cover to A's fire.