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Front Cover: The VERY off-board observer Barry "Black Chit" Jones prepares an artillery barrage.

## THE GRUMPY GROGNARD



## Why Passing Wind Should be Confined to the Bathroom by Chad Cummins (aka "the Grumpy Grognard")

Not all dice rolls (DR) in Squad Leader are created equal - one of these is certainly the Wind Change DR - imposed by B25.65. On a Dr of 2 or 12 all hell can break loose (or you can lose that Mild Breeze called for by a particular scenario and playtested that way). Given the confines of a relatively short period of time (in makebelieve real life) - what are the odds that the wind will actually change in force or direction or start or stop during a particular 15-20 minute period? I'm going to venture practically nil. The Wind Change DR should go the way of the Carrier Pigeon and the Dodo Bird.

Now - what does all this mean for game play? Well - some real-life examples can start the conversation off. During one CG day of Red Barricades, I rolled a 12 on the Wind Change DR. The resulting Gusts blew over a burning building onto my kill stack of a German 10-3, 4 HMG's and their respective manning crews. It essentially ended the CG as that sector then fell apart and there was no recovering. While this makes for good Squad Leader lore, it's not the best way to end a CG that had many man-hours invested in it. In another number of instances, I was attacking with the Americans or Brits against a smaller, dug-in force. The Wind changed and all of sudden there is a Mild Breeze. With so much smoke making capability it's just over for the Defender when something like this occurs. Not the finest way to win a scenario.

I could drone on - but I think you get the point. When wind and direction are specifically called for in a particular scenario - that wind changing or disappearing has major consequences for how the scenario is played (and how it was playtested). The same goes for Rain: whether Rain exists in a scenario or not fundamentally changes the scenario. It simply doesn't work, and I honestly don't know how you playtest and balance a scenario with such a decisive, random variable.

At home, we did away with the Wind Change DR many years ago, which has led to better and longer games and thus more exciting play and more beer-drinking! Try this house rule for yourself - you just might find that with all the other required dice-throwing in Squad Leader, the Wind Change DR might be one you won't miss either. At best, this archaic rule ought to join the pantheon of Optional Rules contained in the ASLRBv2.

## Staying the Course Traveling the Lost Highway by Vincent Maresca

Gary Fortenberry's scenario AP81 Lost Highway from MMP's Action Pack \#8 is regarded as a high level, challenging scenario requiring the American player to bring their "A-game" if they want to compete. I wanted to give this one a shot, as I consider myself to be a mid-level player, challenging myself to play at a higher level. While I failed miserably, hopefully the following analysis will help players better understand the challenges facing the US player, using every single ounce of their toolkit (and associated rules), and giving this one a try.

The scenario presents the US 1st Special Services force (10x668, $4 x 666$, 4x minus SMCs, Hero) with lots of toys (included DCs and FTs) and an interesting mix of 15 AFVs with a 9-2 AL including Shermans (MIA1), SPA (M7), TD (M10), AC (M8) and various HTs. The victory conditions require the US at game end having cleared GO enemy MMC/vehicles from on/adjacent to the central axial roadway running the length of almost two full boards WHILE also existing at least 40 exit VP off the north edge in 8.5 turns. Through SSR, EVP must include nine non-crew MMCs (or 4.5 squad equivalents) and 3-4 tanks and/or all 5 HTs are needed to exit. While clearing the roadway or the exit VP are individually accomplishable, doing them together requires an economy of force and dual objective missions not typically seen in the usual shake and bake tournament "capture the three buildings" scenario. But the US does get 8.5 turns to coordinate their multi-pronged attacks. Therefore, the US has to coordinate massing their expansive firepower and mobility at critical points in both space and time while entering as Riders (see below). Easy peasy.

The initial challenge for the US player is just figuring out how to enter the board as all infantry (and SW) must enter as PRC per the entry requirements. Thus, the US infantry enters en masse hanging off vehicles like an Indian commuter train to Calcutta so figuring out the US portage points for each vehicle is essential. All the US armor has 14PP, the HTs have 15 PP (except the MG HT) and the two M8 scout cars have no portage until you read D6.2 which states all vehicles can carry a SMC +2 PP. This works out that each Sherman, SPA, and TDs can each carry a MMC plus a SW (and/or SMC), the HTs can carry a MMC and HS (but no SW) and the two scout cars can carry a SMC with 2 PP (DCs or FTs make interesting consideration here for a deadly assault option or just drawing German fire). Also worth noting is A15.23 allowing the US hero to fire an AFV's AA MG while riding whether the vehicle is CE or BU (A1.83). Most likely your 666 squads will ride on protected within the HTs while the big bad 668s with their 8 morale should survive riding in on the remaining AFVs.

US squad survivability is bolstered by the US 1st Special Services force crafted through SSR possessing Commando (H1.24) and US Marine (G17.1) capabilities thus they are elite, ELR 5, Stealthy, have scaling ability, and do not Disrupt. A decent force for riding into battle, pushing through opposition, and capturing German prisoners (for double exit VP).

The age-old proverb to fully understanding the Chapter H attributes of your AFVs is critical here. Table 1 provides a quick overview of the US vehicle attributes involved. The main antitank weapons are the Shermans and M10. However, the open topped nature of most of the vehicles is both a concern and an opportunity to group each vehicle's MGs for bounding fire attacks keeping the assault moving forward. The longer you can keep your riders
mounted, the better it will be for you reaching down range and exiting your infantry needed for the VC requirement. The vulnerable M7 Priest should be kept in the backfield pounding positions with HE, white phosphorus (WP), or Smoke. While the Shermans and M8 Scout Cars are available to receive the four Geostabilizers (D11) through SSR, it makes sense to give them to the four Shermans increasing their ability for using Bounding Fire tactics keeping the advance moving forward (see Case C4). Also, while the Sherman and M7 SPA can PFPh Smoke (or the Sherman's WP), the Shermans, M10 TD, and M8 Scout Cars have a low odds ability (sM5/sP5) to place dispersed Smoke (Smoke Mortar/Pots [D13.1]) during the MPh blinding enemy positions or screening advances keeping the attack moving forward (or covering yourself during the enemy's MPh). Finally, any scout car adventure with a FT-toting SMC or some plain old scouting can move 12 hexes through open ground or nine hexes through the grain that dominates the first two boards.

# Table 1: US 1 (75L Sherman) HMC ( 105 SPA) M10 GMC (76L TD) M8 Scout Car 

M3 Half Tracks

Finally, the US does have the option to enter only a portion of their units on Turn 1 either as a recon force or delay the entry of the more vulnerable vehicles such as the M7 SPA, HTs, or scout cars. But before we discuss the US attack, we need to take a look at the defending Germans.

While AP81 is a challenging design for the US player, the German player is not simply a punching bag but must overcome their own issues (Figure 1). The Germans are given menu-driven choices with the ability to select three of the four infantry/AT groups with the restriction that you can only set up one group per board (and the fortification group cannot select the exit [mostly] stone village on Board 46). Additional, German units may only setup within five hexes of 4aI9 (the initial US entry board) and no German unit may leave its setup area until a US unit enters any whole hex of that group's setup area and/or full board hex. Thus, the US player needs to keep their forces organized before they enter a new board/setup area else a single stray unit will give the Germans freedom of action to interdict US movement and slow down the train.

The Germans can select three of four on-board groups (Group A to D) which contains 3-4 squads, some MG and PZK SW and an AT Gun option (plus the fortification Group C with mines [which can be swapped for AT mines], wire, and two pillboxes). Selecting Group C seems obvious for contesting roadway Control and slowing down an armored thrust. While Group C cannot set up on Board 46, that leaves the forward Boards $4 a$ and 6 . Board $4 a$ is less favorable as the deployment restriction of five central hexes prevents mines/wire on the board flanks interdicting the initial Us advance. Board 6 is the better bet with its restricted terrain including a few woods restricted entry locations on the western half of the board and the large stone walled compound to the east cannot be crossed by the US ACs or

HTs. The mines and wire can be used to cover the western half of the board and/or used within the two pillbox hexes. Groups A and B are almost identical except Group A gives you an HMG and PZK for the extra squad in Group B so a no brainer, Group A gets picked. While Group A can cover either of the two remaining boards, Group D with its elite squads, DCs (that can be used as an A-T Set DC [G1.6121] per SSR 2), 50L AT Gun, and 20L FlaK 38 "meat chopper" seem like a better fit for defending the close-in stone village terrain on exit Board 46 and each gun covering the two road exits. However, flipping Group D and A works equally well and have their own tactical nuance.

Finally, the German pick two armored/mech platoons to enter one on Turn 2 and one on Turn 4 including a panzer grenadier (PzGD) platoon (elite squads, 9-2, HTs), a heavy German assault gun platoon in Italian flavored vehicles (with AL), or a lighter German armored recon-type platoon. This force pool provides the German player with flexibility on how they want to coordinate these mobile units with their at-start force. The PzGD platoon reinforcing the rear stone village supported by the heavy Italian assault guns should be expected so have a plan ready for encountering the armored elements probably hull down on the Board 6 stone walls around Turn 3 or 4 .

In summary, while the German force is relatively small, it contains a solid mix of 1st Line and elite infantry, PF and PZK AT weapons, probably two AT guns (75L and 50L), a mobile AFV counterstrike group, and a central board screen of fortifications blunting the US mobile assault. While the German player has some variability in his deployment based on the discussion above, the US will enter mounted and needs to address:
A) encountering a five hex-wide strongpoint challenging the initial entry board (Board 4a) and must be quickly cleared;
B) A probably fortified line in the middle board (Board 6) that must be breached; and,
C) The final hurdle clearing a route through (or along the edge) of the stone village on the rear board (Board 46) with one of the two main exist roadways requiring control (including clearing the multihex stone building 46M7 controlling both exit routes) and existing the required EVP off the south roadway board edge (note: road exits exist in 46 Y 1 and 46Q1).

Each one of these challenges needs to be tackled not individually, as you will run out of time, but concurrently - and thus the US challenge in this scenario.

So how does the US player tackle this challenge? First, the US entry on Board 4a is essentially the southeastern corner of Board 4a as the western southern half of the entry area has a river and woods limiting any armored thrust through this area. From this initial jump off position, The US player needs to calculate and allocate the minimal force needed to take down the Board 4 a strongpoint which will include at least three squads, a MMG, PZK and AT Gun (or slightly tougher if Group D is chosen). Simultaneously, a second force is needed to drive on the central Board 6 to scout and begin breaching the probable fortified line. This will require HT and ACs through the western half of the board (probably encountering mines and/or wire) and/or armor crossing the walled compound to the east (against German armored units). Both operations need to happen simultaneously, which is the balancing act needed for this scenario. Per the SSR, do not enter a German setup area until you have organized your forces else you will release them early giving more freedom of action to the German player reinforcing a threatened sector(s). Finally, you need to build mid-game an EVP force and a Board 46 clearing force for clearing a way through Board 46 and existing for
the victory.
In my game, my first group for taking down the US strongpoint on Board 4 a consisted of 2x Shermans, $2 \mathrm{xM3}$ HT, one M3(MMG) HT, and both M7s coming up the rear with a dm HMG and MMG. The plan was for the M7s to get on the level 1 hill in overwatch covering my 2nd attack group and getting an MG kill-stack into the upper level of 4 aH 11 also supporting the main attack. While this group did lose a Sherman to the HIP AT gun, I was able to capture this Board 4 a strongpoint by Turn 4 (after unfortunately playing peek-a-boo with 1.5 German squads running around the 4 aJ 4 woods area).

My second group contained two Shermans (one with the 9-2 SMC), the two TDs, the two scout cars (both transporting a SMC $\mathrm{w} / \mathrm{FT}$ ), and the two remaining HT driving up the B and C rows on Board 4 a (the HTs made it to 4 aD 18 \& E18). Bounding Fire and Smoke are needed to keep advancing and maintaining your timeline. Once Boards 4a and 6 are taken down, you need to reform and breach Board 46. This is how it should work in theory. My own scenario ended on Turn 6 when I was bogged down on Board 6 unable to place any Smoke on the pillboxes that KIA-ed two of my HT, a German squad in a building that refused all efforts to die, and I lost too much time trying to reach the front edge of the Board 46 village. This scenario is a tightrope walk managing multiple combined-arms objectives simultaneously and pushing the maximum effort from all the resources (and rules) available to each of your individual units. This scenario has the feel of a CG with the unit purchases and multiple on-going operations but on a compact board. This is a scenario requiring exacting play, else the US player will run out of time, but it is a challenge worth taking involving a great mix of counters and choregraphing multiple, combined arms battles.

# THE CLOAK OF DISORDER 



OUTSKIRTS OF LINYI, CHINA. 13 March, 1938: The first Chinese victory in the Second Sino-Japanese War was the Battle of Taierzhuang, which began with the Japanese assault the city of Linyi. Prior to that attack, the ambitious and aggressive Gen. Itagaki Sẹishiro's 5th Division had driven Gen. Pang Bingxun's 39th Division into the town and now prepared to annihilate Pang's force once and for all. Bristling for a fight and confident of victory, the 5 th Div. hurtled headlong into Linyi, led by battlehardened infantry, reinforced with armor and artillery. Though outnumbered by the defenders, Itakagi assumed Japanese technological superiority would - once again - carry the day.

## BOARD ORIENTATION:

## N


(Only hexes $A-P$ are in play.)

PATH TO VICTORY: The Japanese win at Game End by Controlling all 4 Stone Building / Stone Rubble Locations.
PARITY:

* Remove a Light Mortar from the Japanese OB.先 Add a Japanese Light Mortar to the Japanese OB.


## TURN PROGRESSION

| - CHINESE Set Up First |  | 2 | $3^{-}$ | 4 | 5 | 6 | END |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 棌 JAPANESE Move First |  |  |  |  |  |  |  |



Elements of the 39th Division [ELR: 3] set up on/south of hexrow K. (SAN:3)


Elements of the 59th Corps enter turn 3 (see SP4):


Elements of the 5th Division [ELR: 4] enter on/after Turn 1 on the north edge. All, some or none may enter each turn. (SAN:2)


## SCENARIO PARAMETERS:

1. EC are Wet with no wind at start. Grain is Brush. Place overlay Wd2 on L2-M2, Wd1 in K7 and B1 in L7.
2. Wind Change and Bore Sighting are NA.
3. While in their Vehicles, Chinese Vehicle Crews have a Morale of 8 .
4. The Chinese reinforcements enter on turn $3 \mathrm{on} /$ within 2 hexes of a single south east or west map edge road hex secretly chosen by a single south, east or west map edge road hex secretly chosen by the invaders, forcing them to wirldraw. With victory at Linyi, A5 (not A6) is the north-edge Road hex.
5. Elite Chinese MMC may create a combined total of $\leq 3$ T-H / DC Heroes in the same manner as the Japanese (G1.421, दे 1.424 ). For this purpose, simply use a normal Chinese Hero counter and assume the printed values to be the same as that of a Japanese T-H Hero.
6. The Japanese INF must enter being towed. The truck is immediately Recalled when the Gun is unhooked.

EPILOGUE: Unbeknownst to the Japanese, Gen. Zhang Zizhang's 59th Corps had moved eastwards from Xizhou in order to reinforce Linyi. On March 13, Zhang's unit hit the Japanese left flank with full force and over the next 5 days inflicted egregious losses on loss at the hands of the Japanese at Beijing - not only received an official pardon for his role in that debacle but had "so redeemed his reputation that Generalissimo Jiang [Kai Shek] hung his portrait conspicuously in his private study."
"Simulated disorder requires perfect discipline . . . Hiding order 6. Japanese Ordnance is Elite (C8.2). However, the Japanese are beneath the cloak of disorder is simply a question of subdivision." limited to a combined total of 3 successfully placed ordnance - Sun Tzu, The Art of War
SMOKE (note: including WP) counters.

## Scenario Analysis: HazMo 31-The Cloak Of Disorder

## By Jim Bishop



I promised Chuck an article for this issue of Horizon and then I screwed up and used the article elsewhere. Chuck offered me some ideas for articles but none of those struck my fancy. I read Horizon contained a scenario and offered to provide a scenario analysis for it. Chuck thought that was a good idea so here we are.

As always, I will use a system outlined in a blog article I authored entitled ASL Tactical Maxims. I write them from the defender's perspective. This framework provides me with a consistent method for decomposing scenarios into the smallest possible elements. I examine these elements to see how they contribute to an attacker's victory and then set out to determine how to offset these. The net outcome is one way to achieve victory for both the attacker and defender.

For the first time, I am also going to speak about patterns in ASL, a topic I touched on in my article Defenses In ASL. I will not delve into the patterns here, but I am going to refer to some patterns that will appear in my defense here. If you are unfamiliar with those, I recommend you go read that to see what I am talking about. Terms defined in the Defenses article will be bold italic in this article.

Let's get started.

## Maxim 1: Victory Conditions

The Victory Conditions (VC) in this scenario are straightforward. The Japanese win at game end if they control the four stone building Locations on the map. If the stone buildings are rubbled, then rubble Locations also count as part of the VC. This is a good scenario design when giving one or the other side DCs as a Set DC can Rubble a building making it no longer a building for VC purposes.

But as I always say, knowing the VC is only the first part of this Maxim. You also need to know how to achieve the VC. Notice, this VC is LOCATION control and not BUILDING control. Only Infantry can control a building but that is not the case here. The Japanese Type 89As can Control a Location by remaining in the Location [EXC: in Bypass]. If they leave the Location, Control over that Location returns to the Chinese. If they are desperate, the IJA can run the Type 89As into a building/rubble Location in the later turns to take control of that Location.

The only way to permanently take Control for the IJA is to have MMC Infantry occupy the Location, even temporarily. As the Chinese, it is our goal to eliminate IJA MMC Infantry at every chance. Every stripe, every casualty reduction, every eliminated unit puts us one step closer to victory. If there is no IJA Infantry, there is no loss of Control over the victory Locations.

As the Chinese, I aim to hold on to at least one building. For control of the stone building Locations, I will fight like I am the third monkey on the ramp to Noah's ark and it's starting to rain.

## Maxim 2: Terrain



A road running North/South from A5 to P6 divides the playing area int halves. Three of the VC Locations are West of the road. A mix of woods and brush cover the approach to the village. The terrain north of the road is also denser, favoring the Defender until the IJA make it into the village. A road from G5 to I1 provides terrain for a Linear Defense. The same for the J6 to I10 road.

There are two prospects for an Alamo, F4 and G6. Pre-game, I prefer F4 to G6 because of the denser terrain on the western half of the board. Still, the road segment G5-J6 also makes a nice Linear

Defense feature making G6 attractive. A lot will depend on the IJA attack. Selection of the Alamo further complicates selection of the Chinese reinforcement's entry area. We must pick this BEFORE the IJA sets up. The Chinese Defense must protect this entry while falling back. These units MUST make it to the Alamo to have a fighting chance to win. I think either I1 or A5 are acceptable choices. If the Chinese opt for I1, they have a lot of flexibility on which hexes to enter on. They can quickly get to F4 if needed or can reinforce the G5/I1 linear defense if needed. Entry on I1 will force the Chinese to transition to hold at all costs earlier. Entry at A5 will delay the Chinese arrival to the battle and they are likely to be Counter Exhausted (CX) when they get there. Personally, I lean towards an I1 entry.

Based on the terrain, I will use a combination of area denial (north of the J row) and terrain retention (south of the row). My initial aim will be force preservation and enemy destruction. As my fighting withdrawal collapses around the Alamo my aim will increasingly become hold at all costs. The two east/west linear defense features provide a good demarcation line for transitioning from force preservation to hold at all costs. Hex F4 will be the Alamo although a shift to G6 might happen depending on shifting game conditions.

## Influence On Infantry Movement

A good portion of the terrain costs 2 MF for Infantry movement. This will slow the IJA down, even if they Banzai. The terrain is mostly soft hindrances for Firelane purposes. Given the Chinese have 4 machine guns, they should use Firelanes to further influence the IJA movement. Ideally, place Firelanes SE to NW (from the bottom left to the top right) to influence the IJA to move eastward. This helps to delay the IJA approach to F4.

## Influence On Vehicular Movement

Much of the terrain here is also 2 MPs for vehicles. This will slow down each side's AFV movement but isn't likely to cause too much consternation. If anything, it will force the Infantry and AFVs to remain in mutually supporting positions. As a defender, I would rather they spread out. The tight terrain may prevent the attacker from making a tactical mistake.

## Visualizing The Terrain's Influence On The Battle

This is a little difficult to predict. With any other nation, you could examine the rally terrain options and predict the approach based on that. The IJA certainly should give some thought to rallying broken half squads along the way, but it isn't an initial pressing need for them.

The brush will slow down the IJA but will also negate First Fire Movement in the Open (FFMO). As it is a soft hindrance, Firelanes will get a - 1 First Fire Non-Assault Movement (FFNAM) DRM if using non Assault movement through a Firelane.

## Maxim 3: Time

The game is six turns long. Given the distance the IJA must travel to the F4 building, they are not under too much pressure to get there. Moving 2 hexes forward a turn, combined with an Advance in the APh will get them everywhere they want to be. If anything, the Chinese are more likely to feel the time pressure at the beginning. They need to disrupt the IJA timetable.

But this time luxury is based on a straight-line distance. If the Chinese can deflect the attack to the east, they can buy themselves a
turn. It also moves the IJA into more open terrain. It forces the IJA to cross the J6/I10 linear defense and the G5/A5 linear defense to get to F4. If the IJA opt to attack this way, the Chinese must hold G6 for as long as possible. The IJA must pay a price in blood transitioning through to G6/F6.

If the IJA approaches along the western half of the board, M1-K2-K6 must be treated like a linear defense. The IJA must pay a price to cross this terrain. If you have selected I1 as an entry, this is not a bad demarcation line for transition to hold at all costs.

## Maxim 4: Order of Battle

The Chinese

| 学栄 | Elements of the 59th Arm. [ELR: 3] set up on/south of hexrow K. (SAN:3 | Reinforcements enter turn 3 (as per SP4): |  |
| :---: | :---: | :---: | :---: |
|  | (ion |  |  |
|  |  |  |  |

The initial Chinese units cannot deploy. The 3-3-7s cannot use the DC without a non-qualified use penalty. Fortunately, the 2-3-7s are Elite and can use the DC. Non-elite MMC-like the $3-3-7 \mathrm{~s}-$ must take a 1PAATC to Advance into a Japanese AFV's Location. Chinese also suffer a +1 drm on leader creation. Finally, all the Chinese MGs are B11. Not only will Firelanes fail 1 in 6 times for cowering, the MG itself will malfunction 1 in 12 times when attacking. The Chinese player is putting a lot of hope into Firelanes but some bad DRs could make this hope misplaced.

It's not all bad news for the Chinese. They have a lot of MMC. They have more Infantry units at start than the IJA does. And they bring on an additional 4 squads. Sadly, their firepower and range are not good. This also places them at a disadvantage in CC. Striping the IJA MMCs will level the firepower imbalance and make Close Combat (CC) more palatable. Still, the IJA get a -1 DRM in Hand-to-Hand (H-t-H) CC. They are more likely to win CC but if you can take an MMC with you, the IJA will run out of Infantry before you.

The Dare Death units can voluntarily go Berserk and charge enemy units. Times correctly, this can sow confusion and doubt into Japanese thinking. Try to only charge adjacent units, in TEM, and preferably Locations with Japanese leaders. The resultant CC will be H-t-H and the Dare Death unit gets a -1 DRM on $\mathrm{H}-\mathrm{t}-\mathrm{H}$ CC just like the IJA do. Make this hurt.

Finally, the Chinese may deploy Tank Hunter Heroes just like the IJA do by SSR. This includes deploying DC Heroes. This is the only effective anti-tank asset in the Chinese OB so we it must employ it cautiously. I would only use a DC hero if I knew it was absolutely going to make the destination Location and explode. This likely means attack through TEM and into Adjacent Locations.

## The Japanese

Elements of the 2nd Army [ELR: 4] enter on Turn 1 on the north edge. All, some or none may enter each turn. (SAN:2)


The squads don't break; they stripe. This means Japanese units are going to get where they want to. It's just uncertain what shape they will be in once they make it. Striping will put the IJA squads on an equal firepower basis as the Chinese. They have superior morale as well. Don't be afraid to shoot into an existing Melee if the IJA MMC does not break. So long as an unbroken half squad remains, the $\mathrm{H}-\mathrm{t}-\mathrm{H}$ attack against the withdrawing Chinese units will apply a -3 DRM.

The IJA can Banzai, gaining 8 MFs for this turn. This will allow the IJA to quickly close on the Chinese. Banzai units are immune to pinning and HOB. They have $\mathrm{a}+1$ increased morale. Keep in mind we can combine Impulse-type movement. Conducting a combined Banzai/Armored Assault will negate the -1 DRM for moving through Chinese Firelanes. Given the Chinese have more Squads of Infantry, the IJA need to be careful about how they spend their MMC units. Also, given the DCs, it is possible to "spin out" a DC Hero from a Banzai to soak up a lot of First Fire and Subsequent First Fire options from the Defender.

The Japanese plan should be one of aggression. The IJA should deploy squads to cover the ground (half squads don't stripe) and recombine them for the attack once they are in TEM. This should help to preserve the IJA force into the mid- and endgame. And force preservation should be a guiding principle for the IJA here. They don't have any Infantry to waste.

## Making a Plan



The image above synthesizes everything in this article into a plan. Red arrows represent linear defense zones. I identified the Alamo. The general plan of defense is to set up a little forward to inflict IJA casualties early. MGs will place Firelanes to influence the IJA towards eastward movement. If the IJA opt to pass through the Firelanes, they risk casualties which suit the Chinese fine. Beginning on their turn 1, the Chinese will conduct a fighting withdrawal. The plan is to fall back to each linear defense and inflict casualties on the IJA crossing those. Leaders stuck in CC must self-break and run away. They are too important to lose.

Dare Death squads will charge only if they have favorable TEM to move through. Ideally, they attack an MMC/leader combo. Eliminating IJA leaders reduces the risk of Banzai charges. Tank Hunter Heroes will focus on eliminating Japanese tanks.

With that in mind, let's look at my proposed Chinese setup.

## Proposed Chinese Setup

The arrows represent possible Firelanes. I prefer the red lanes to the blue as those will influence the IJA to move eastward. The 3-3-7 in K 7 is in an awkward position but it is there to protect the 8-1 MMG combo. The "?" counters are all dummy stacks representing two Firelanes from the bottom edge of the map. Hex H9 is an alternative for the HMG with a Firelane extending from H9 to P5. I prefer I7 to H9 based on the ability of the MMG to bug out and get to the Alamo in F4.

The "DD" marked units are Dare Death squads. I placed them centrally so they can influence the battle on either side of the north/ south divide. They likely will not charge unless they are adjacent and charging into TEM. Each Chinese unit is precious, and we must preserve as much as possible.

When falling back from the current positioning, units will shift to the west (top of the map) in order to collapse around F4. Reinforcements will enter on I1. The second line of defense will form south of the I1-G5-J6-I10 road. Japanese units crossing this road will be subject to a FFMO and FFNAM if conducting a Banzai. The Chinese tankettes will try to protect the G3-G5 road segment.

If conditions dictate it, G5 can also serve as an Alamo. Units on the eastern half of the board will defend G5 holding at all costs as they collapse into the stone building. Trying to hold G5 will put pressure on the Japanese to get the force mixture correct when attacking. Forcing the Japanese to decide gives the IJA a chance to make a bad decision. This works in the Chinese favor.

## Conclusion

I haven't played this scenario yet so I am not sure how well this plan will work. My best guess is this will be a tight game based on the OB and terrain. If the Chinese get some early low rolls and wither away the IJA Infantry, I can see this going south for the IJA quickly. The IJA can't win this one early, but they sure can lose it early if they aren't paying attention. The real test of the Chinese starts with the Japanese player turn 2. Beginning then, the Chinese player must adapt his plan to what the IJA player is doing and plan accordingly. Like Mike Tyson said, "Everyone has a plan until they are punched in the mouth". Can you adapt to being punched in the mouth?

I hope you enjoyed this article. If you want to see more like it, hop on over to my blog. I write an article covering some aspect of ASL just about every two weeks. I cover scenario analysis, tactics, rules, mistakes, storage, and just about any other ASL-related topic you can think of. If there is something you would like to see me cover, I have a topic suggestion form at the top of my blog. I hope to see you there.

- jim


## Dueling Dragons:

## Options for Combined Arms Combat in Shanghai August 1937 By John Gorkowski

In case someone wants to collaborate or comment, I'm sharing my musings about two possible campaign games (and various scenarios) covering the fighting in Shanghai during August of 1937. Let's call the first North Sichuan Road, 13-18 August, and the second Hui Shan Docks, 19-21 August.

I'll start with a few remarks on research. It should surprise no one that written accounts of the action in Shanghai during 1937 are less numerous and less detailed than similar writings about more popular topics such as Normandy 1944. This is not just a function of the language barrier. The Chinese Army of 1937 kept scant records, their Japanese counterparts had more interest in concealing records, and the ultimate victor - Communist China - wrote its own narrative irrespective of the records. To make matters worse, the information that is available gets mangled in translation because of different western systems for transliterating Chinese. Wade Giles, Yale, and Pin Yin have all been used to transliterate Chinese into western characters at different times. The end result is several different ways to write the same Chinese word or phrase in English, quite confusing when trying to track place names. On the other hand, the U.S. Army did produce some very useful maps of Shanghai in the 1930s and the Japanese Army had a penchant for filming and photographing its troops "in action." Although many of those Japanese visuals were in fact staged propaganda products, they inadvertently provide a wealth of useful information about the battle space as well as arms
and equipment. So, by cross referencing written sources with each other as well as period maps and photos I have cobbled together enough information to construct a useful account of what actually happened in Shanghai that fateful summer. On the importance of cross checking let me note that some already published scenarios on this topic feature elements for which I can find no reference (no photo, no primary/secondary document, no eye witness account, etc.) other than a quick citationless mention on Wikipedia! Ergo, some of my conclusions will deviate from what has already been published in the hobby press since I can't substantiate the latter.

The 1937 battle for Shanghai proper (just the city) spanned 30 square kilometers over nearly three months from August 13 to November 1. That does not include nearby battles outside the city, such as Wusong and Luodian, that ultimately compelled the Chinese to withdraw from an untenable position in the urban center. But even our limited city-only presentation is too much time and space for Advanced Squad Leader (ASL) to cover, so Dueling Dragons focuses only on two pivotal elements of the larger battle: North Sichuan Road and the Hui Shan Docks.

A North Sichuan Road campaign could model the following historical events. Chaffing under Japanese occupation, the Chinese started firefights with Japanese troops at the Commercial Press Building and the Eight Character Bridge on August 13. Hence, the battle for Shanghai began along the western edge of Hong Kiew (Hong Kou), the Japanese settlement. That zone of Japanese occupation formed a salient called Little Tokyo that stretched from the Whangpoo (Huang Pu) River out of the international settlement northward for about three kilometers to the fortified Japanese naval
headquarters on the edge of Hong Kiew Park. About 2,500 Japanese Special Naval Landing Force (SNLF) troops with again as many armed civilian volunteers (Japanese shop keepers) as well as six Type 89 tanks (no Type 95 Ha Go) and several armored cars defended the settlement.

German-trained troops of the Chinese Kuo Min Tang (KMT) 88th division launched a series of frontal assaults against the western edge of the salient in an effort to interdict North Sichuan Road, Japan's primary north-south supply route through Little Tokyo. KMT attacks emanated from the North Railway Station where new arrivals mustered for the fight. Outnumbered but highly mobile Japanese forces scrambled to defend their emplacements along the route. Film and photographic evidence show their extensive use of Vickers Crossley M-25 armored cars (not in the ASL counter mix) and motorcycles with armed side cars to shuttle troops up and down North Sichuan Road. The vigorous but unimaginative frontal assaults by KMT troops against Japanese emplacements gained little at great cost. In response, German advisors convinced the KMT to resurrect WWI Stosstruppen tactics (bypass strong points and infiltrate into lines of communication) on August 18, but that failed too. The Chinese did, however, bleed both sides enough to scare the Japanese into calling for reinforcements.

I'm not aware of any ASL scenarios depicting these North Sichuan Road attacks, but they seem like rich source material. We can use geomorphic boards to illustrate critical points and approximate spacing for a game map. See the pic below with key features circled as follows: North Railway Station in the lower left (south west), the Eight Character Bridge in the upper left (north west), Japanese
naval headquarters (overlay X30) in the upper right (north east), and North Sichuan Road running the length of the two easternmost boards, but circled in the lower right (south east). KMT 4-4-7s would muster at the train station while Japanese naval HQ spawns $4-4-8 \mathrm{~s}$. Some Ronin, Japanese 3-3-6s, could roam North Sichuan Road. The Chinese would move eastward to cut roads along the far edge while the Japanese Marines would intervene with Type 89 tanks, motorcycles, and armored cars to stop them.


The second option, a Hui Shan Docks campaign, would cover Chiang Kai-Shek's effort to interrupt Japanese supplies by attacking their wharves on the river bank east of Little Tokyo. Chiang pivoted away from the failing North Sichuan Road effort by sending the fresh 36th KMT infantry division, also German-trained, southward on August 19 through the international settlement, heretofore taboo for fear of alienating the western sympathy he courted. The KMT's 215th regiment followed Chaou Foong Road (now Gao Yang Road) while its 522nd regiment followed Kung Ping (Gong Ping). The Japanese 7th SNLF, recently arrived from Kure, resisted fiercely at Seward Road East (Dong Chang Zhi), but the KMT pressed on to Broadway (Dong Daming) where they could not breach the ancient wall defended by Japanese troops on makeshift ramparts. The following day, August 20, the Chinese committed their armor, about 20 Vickers tanks. The 1st armored company joined the 522 nd for the attack down Kung Ping while the 2nd armored company attached to the 1st regiment (possibly of the 87th division) attacked along Chusan (Zhoushan). By August 21, the 522nd and its armor had reached the Hui Shan Wharves; but the SNLF, supported by gunboat fire, threw them back. The Chinese lost all their tanks and over 1,200 men. At least one ASL scenario already depicts some of this action, BFP-29 Hueishan Docks.


Here's a portion of a 1933 map from the US Army Map Service scaled at 1,000 yards per square. KMT armor charged from north to south right down the middle along Kung Ping Road, just to the right the green space.

Along with a lot of useful footage, there's an animated map in Japanese at 4:44 and 5:22 of this link.

The internet is full of black and white period photographs to substantiate conclusions about the battle space, troops, and weapons, but I don't want to share them here for fear of running afoul of licensing issues. Readers can find these visuals online at the WWII database and elsewhere. And that's enough to get started with mapping and scenario design.

Hui Shan Docks, the final Chinese objective in August.


Sources:
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## CAVE RULES BY SEQUENCE OF PLAY

## By Michael Rodgers

A lot of people shy away from caves in ASL. That is somewhat understandable; there are about seven pages of text, and a limited number of official scenarios (13) that use caves. I believe they are worthwhile to learn, however, to have the full range of "World War II movies through ASL" experience. It is worth mentioning that two mini HASL modules use caves: Kakazu Ridge and Gavutu-Tanambogo. Read any book about Iwo Jima or Okinawa and you will see how common caves were to the Japanese defence.

It is important to realize that the cave rules are very different from the pillbox rules; the similarity in the counters can be misleading. On the cave counter, however, the third number is not the NCA TEM. Caves do not have a NCA.

I have found it useful to itemize a topic's rules by the Sequence of Play order, first done by Tim Hundsdorfer in the article "The Weather Outside Is Frightful" (ASL Annual '96). Here are the cave rules organized in the same manner. My goal is to have an quicker-to-read reminder of how the caves affect the game, with a rules reference for more details when required. I give a big "thank you" to J.R. VanMechelan for his valuable input to this playaid.

## SETUP

## Both types of Cave

- The hexside a Cave counter's arrow points to is called its CA Hexside. Only one Cave counter can point to a each hexside of a hex. (G11.1)
- No Cave counter may be set up in a building, rubble, marsh, swamp or Water Obstacle hex or IN a non-dry stream. (G11.1)
- Only Japanese Infantry-(including Dummies) / SW / a-non-vehicular-Gun may be set up in a cave. (G11.1)
- Up to $25 \%$ (FRD) of the cave counters in the Japanese OB may be designated as Primary Caves for Cave Complexes. (G11.2)
- Cave counters and their contents always set up Hidden. Cave Complexes and their contents always set up Hidden. (G11.3)
- A Cave has a stacking limit of one squad-equivalent, or one Gun with crew. Overstacking may occur during play. (G11.4)
- A Cave Complex has a stacking limit equal to twice the number of Cave counters within its boundaries. Overstacking may occur during play. (G11.4) - A radio/field phone may be set up and used in a cave. (G11.837)

It takes three OB-given cave counters to set up one Upper-Cliff Cave. (G11.91)

- Any type, any Caliber, and any Target Size of Gun may set up in a Cave, but not all may fire from it. (G11.83, G11.92) No AA gun may fire from a cave. The only mortar that can fire from a cave is the 50 mm Type 89 Heavy Grenade Launcher.
- Above-ground contents of the hex are placed (and considered to be) above all Cave counters in that hex.
- No Fortification may exist in a cave/Cave-Complex; however, a tunnel may connect to a Cave Complex. All Fortifications in a Cave counter's hex retain their normal capabilities and effects, but only outside that cave and at their normal setup level. (G11.93)


## Depression Cave

- The Cave can be IN a gully, sunken road, hill depression or dry stream but not a non-dry stream. (G11.1)
- Its own hex is its Entrance Hex. (G11.1)
- The Cave must have its arrow pointing directly away from a non-Depression hexside (of its hex) whose other common hex to that hexside has a Base Level (or Crest level-whichever is higher) > that cave's level, and that arrow must also point across a Depression (including a Crest-Line-Depression; B19.5) hexside to an adjacent Depression hex. (G11.1)
- The Cave is at level of Depression. (G11.111)


## Non-Depression Cave

- Set up in a hex that shares a hill/cliff Crest Line hexside with another hex whose Base Level is lower than the Base Level of the Cave counter's hex. (G11.1)
- Cave must have its arrow pointing across a hill/cliff Crest Line hexside (of its hex) to the center dot of an adjacent lower-Base-Level hex that contains no Irrigated-paddy / sand / marsh / swamp / water-(even a hexside pond) whose level is $\geq$ that cave's level. (G11.1)
- The other hex common to its CA Hexside is its Entrance Hex. (G11.1) If its CA Hexside is a non-cliff hexside or a one-level cliff, the cave's level equals the Base Level (or Crest level-whichever is higher) of its Entrance Hex. (G11.112)
- If its CA Hexside is a cliff hexside $\geq$ two levels high, the cave's level can be chosen by the Cave counter's owner. If the chosen level is greater than the Base Level, then this cave is an Upper-Cliff cave. (G11.113)


## RALLY PHASE

- Caves are Rally-Bonus Terrain. (G11.1)
- Cave Complexes are Rally-Bonus Terrain. (G11.2)
- Infantry in a Cave Complex may not remain DM. (G11.77)
- Hidden actions are possible within Caves/Cave Complexes. (G11.75)


## PREP FIRE PHASE, DEFENSIVE FIRE PHASE,

## ADVANCING FIRE PHASE

- The CA of a Cave counter, and hence the LOS of units in the cave, excludes all (even Aerial) Locations in that Cave counter's hex, other than that of the cave itself [EXC: the CA of a Cave counter IN a Depression includes the area IN its hex]. A hex half in and half out of a cave's CA is considered to be completely within that CA for the purposes of C.5B only, even though part of that hex actually is outside that CA. (G11.12)
- No LOS exists between different caves in the same hex. (G11.5)
- No LOS exists between a cave and the above-ground Base-Level Location of its non-Depression hex. (G11.5)
- No LOS exists between an Upper-cliff cave and a Climbing unit at a vertex of that cave's CA Hexside and at a different level than that cave. (G11.5)
- LOS to/from a cave can exist only if traced entirely within that cave's CA [EXC: a cave IN a Depression hex has LOS to its own hex (i.e., its Entrance Hex) as well]. (G11.5)
- If the LOS from a unit in a cave whose CA Hexside is also a hill (only) Crest Line hexside lies along a Continuous Slope when disregarding the Cave counter's hex, then a Continuous Slope is considered to exist from that cave along that LOS. Barring other LOS obstructions, LOS may be traced within the CA of a cave in a non-Depression hex to/from an elevation lower than the cave's if its Entrance Hex contains no terrain (including a Crest Line) whose obstacle height along that LOS is $>$ that cave's level. (G11.5) - No LOS ever exists to/from a Cave Complex. (G11.5)
- The contents of a cave/Cave-Complex may not be inspected by the opponent. (G11.52)
- A unit is ADJACENT to a cave only if Japanese Infantry in/IN that unit's Location would have a LOS to that cave and could advance directly into it. (G11.6)
- Cave TEM is +6 versus OBA or Area Target Type; +4 otherwise. (G11.8) - Any unit/weapon that fires out of an Overstacked cave is subject to Area Fire penalties in addition to normal overstacking penalties. (G11.8)
- Neither a hidden cave nor its contents may be predesignated as a target. (G11.8)
- A unit must pre-designate a cave as its target to be able to affect it. (G11.8)
- Spraying Fire can affect two (only) pre-designated cave Locations that are within one level of each other and share a common CA Hexside vertex. However, a Spraying Fire attack cannot include $>$ one cave Location if it includes a non-cave Location, nor can one that includes two non-cave Locations include any cave Location. (G11.811)
- Hidden/concealed status in a cave neither halves the FP of, nor adds a TH DRM to, attacks vs its occupants. (G11.812)
- A radio may be used in a cave only if it has remained therein since the scenario's initial setup. A field phone may be used in a cave. (G11.837)
- A Cave can be eliminated by a DC attack, or by a HE CH of $\geq$ of GE 100mm. (G11.833, G11.88).
- Neither a hidden cave nor its contents may be hit/affected by any attack other than Bombardment. (G11.8)
- Neither mortar nor AA fire is allowed from a cave, except for a Japanese light mortar. If the cave's Entrance Hex is a dense-jungle/bamboo hex whose total obstacle height exceeds that cave's level, then that light mortar cannot use Spotted Fire. (G11.83)
- Each Gun in a cave is considered to have a normal (i.e., neither Small nor Large) Target Size for TH purposes. (G11.83)
- Infantry in a cave may Spot for mortars (that are not in a cave) in the normal manner. (G11.83)
- A non-hidden cave and its contents are immune to Area Target Type attacks whose LOS/LOF enters its hex outside of its CA Hexside. (G11.831)
- When using the Infantry Target Type, Target Acquisition may be gained/ retained vs a Known (to the firer) cave even if that cave contains no Known enemy unit (/even if firing SMOKE as per G11.85). (G11.832)
- A DC may be Thrown into a cave only by an adjacent Thrower who is not more than one level lower than, and who has a LOS to, that cave - and only if the Thrower's owner makes a subsequent Final dr of $\leq 3$. (G11.833)
- A non-hidden cave and its contents are immune to OBA unless the attack vs its hex crosses that cave's CA hexside. (G11.84)
- A FT attack vs a cave can affect only the occupant(s) of that cave Location [EXC: if the cave is in a non-Depression hex, the FT also attacks the occupants of all (even hidden) caves Accessible to that cave, using the same FP quartered and the same Original IFT DR]. (G11.834)
- A SCW [EXC: PIAT] fired from a cave causes a Desperation penalty unless it is using Opportunity Fire or the Case C3 TH DRM. (G11.835)
- HEAT may be fired at Infantry/a-Gun in a cave. (G11.835)
- Canister FP is halved vs a cave. (G11.836)
- SMOKE may be placed in/IN a Cave counter's hex in the normal manner. (G11.85)
- The "outgoing LOS" DRM of SMOKE in a cave equals twice that SMOKE's current maximum applicable DRM (instead of an additional + 1). (G11.85) - Direct-Fire ordnance may attempt to place SMOKE into a cave itself using the Infantry Target Type or a SW's own TH table and pre-designating the cave as the target. The +2 Basic TH\# modification for firing SMOKE at $\leq 12$ hexes (C4.4) is NA. The cave's +4 TEM (TH Case Q) applies. WP successfully placed (by any means) in a cave is automatically a CH therein, and uses the reversed TEM applicable to that type of attack. (G11.85)
- When a $5 / 8$ " WP counter in a cave is flipped to its Dispersed side all other hidden caves Accessible to that cave, plus all other hidden caves set up within the boundaries of the same Cave Complex (if any) which that cave is set up within, plus the above-ground entrances/exits of all tunnels that connect to that Complex, are immediately revealed (regardless of LOS), provided they are also at a higher level than that cave. (G11.851)
- A non-hidden cave is considered a building for Sighting TC purposes. Occupants of that cave's Entrance Hex which are in the plane's LOS are assumed to have been Sighted if the cave is sighted. (G11.86)
- Caves are not Burnable Terrain. (G11.95)
- Infantry in a cave become Battle Hardened (not Berserk) on a Final Heat of Battle DR of $\geq 9$. (G11.97)


## MOVEMENT PHASE

- No cave occupant is considered a Known enemy unit for berserk-unit creation/charge purposes. (G11.97)
- A successful Search reveals all cave counters in a hex and their contents. (G11.33)
- A cave does not invoke the +2 Search drm given in G1.63; i.e., it is not considered Concealment Terrain vs a Search. (G11.33)
- An unbroken unit/stack may not enter an already-Overstacked Complex. (G11.4)
-A cave is Accessible to its associated Cave Complex and vice-versa. (G11.6) - A Cave Complex is Accessible to another Cave Complex if they share a hexside. (G11.6)
- A Cave Complex is Accessible to any location to which it is connected by a tunnel. (G11.6)
- Entry of an Upper-Cliff cave from above-ground requires Climbing. (G11.7)
- Japanese Infantry (and their SW / Guarded-prisoner[s] / Dummies) enter a cave at a cost of two MF. No other nationality can enter a cave. (G11.7) Infantry that enter a non-hidden cave expend no MF to do so if they remain hidden when they enter it. Infantry that enter a hidden cave expend no MF to do so. (G11.751)
- A Japanese gun [EXC: Large Target Size] may be Manhandled from a Cave Complex to a Cave (or vice-versa) at a cost of two MF (G11.7). No Manhandling DR is required. (G11.76)
- Entry of a cave from an Accessible cave in the same non-Depression hex costs one additional MF per level change. (G11.71)
- Infantry in a cave IN a Depression who wish to enter another cave IN that same hex must first exit to above-ground IN that hex and then make a separate MF expenditure to enter the other cave. (G11.71)
- Exiting from a cave IN a Depression to above-ground IN that Depression costs one MF. (G11.72)
- Infantry may enter may enter a cave or Cave Complex from an Accessible cave/Cave-Complex only if it has $\geq$ two MF available (all have four MF for this calculation); Minimum move is NA. Infantry that enter a cave (even from above-ground) or Cave Complex cannot enter another cave, Cave Complex or tunnel during that same phase. (G11.74)
- Hidden actions are possible within Caves/Cave Complexes, but not when an enemy unit as LOS to the Cave Location. (G11.75)
- A (not large) Gun may be Pushed during the MPh by a MMC (or its SMC equivalent) from a cave to an Accessible Cave Complex (or vice-versa). (G11.76)
- A DC may be Placed into a cave only by a non-Climbing Infantry unit that expends the cave entry cost, plus any required SMOKE MF cost, to Place it while ADJACENT to the cave. An Infantry unit at a higher elevation than a cave but not in its CA may attempt to Place a DC into it by declaring such and moving onto a Climb counter whose arrow touches a vertex of that cave's CA Hexside (or, for a cave IN a Depression, touches a vertex of the hexside the Cave counter's arrow points directly away from). A DC may be Thrown into a cave only by an adjacent Thrower who is not more than one level lower than, and who has a LOS to, that cave - and only if the Thrower's owner makes a subsequent Final dr of $\leq 3$. A unit can spend its entire MPh to Set a DC while ADJACENT to a cave. (G11.833, G11.8331, G11.8332)
- The MF entry cost of caves/Cave-Complexes is not increased at night. (G11.96)
- Residual FP may be placed in a cave only if that cave was the attacker's predesignated target. Existing Residual FP in a cave attacks certain units as a Snap Shot. (G11.82)
- A Fire Lane can originate in a cave but cannot enter one. (G11.821)
- SMOKE-grenades: a unit in a cave may attempt to place SMOKE in that cave. A unit that is above-ground and in a position from which a DC could be Thrown into that cave may attempt to place a SMOKE grenade into that cave; it succeeds upon making a Final Thrown-DC dr of $\leq 3$ as per 11.833. Each $1 / 2 "$ SMOKE counter placed in a cave remains onboard (beneath that Cave counter) and in effect until the end of the Player Turn in which it was placed. WP successfully placed (by any means) in a cave is automatically a CH therein, and uses the reversed TEM applicable to that type of attack. (G11.85)
- Infantry exiting a cave directly into/INTO a wire Location are placed above that Wire counter. (G11.931)


## ROUT PHASE

- Infantry may not Rout from a Cave Complex. (G11.73)
- A broken unit in a cave or Cave Complex is not required to rout to the nearest woods/building (G11.77).
- A broken Japanese unit may rout to a cave if that cave is at least as close (in MF) as the nearest woods/building. (G11.77)
- A broken unit may become HIP when entering a Cave/Cave Complex. (G11.75)


## ADVANCE PHASE

- A cave is Accessible to all other caves that lie in/IN the same hex with it and within one level of it. (G11.6)
- A cave is Accessible to its associated Cave Complex and vice-versa. (G11.6) Infantry may not advance from one Cave Complex to another Cave Complex. (G11.73)
- Infantry may enter a cave or Cave Complex from an Accessible cave/ Cave-Complex only if it has $\geq$ two MF available (all have four MF for this calculation); Advance vs Difficult Terrain is NA. (G11.74)
- Infantry in a cave IN a Depression who wish to enter another cave IN that same hex must first exit to above-ground IN that hex and they can enter both locations in one APh. (G11.71)
- Hidden advance is possible with Caves/Cave Complexes, but not into a Cave Location when an enemy unit as LOS to the Cave Location. (G11.75)


## CLOSE COMBAT PHASE

- No type of CC attack is allowed between a unit in a cave and one outside of it. (G11.87)
- Caves are Concealment Terrain. (G11.1)
- Cave Complexes are Concealment Terrain. (G11.2)
- Remove any $1 / 2^{\prime \prime}$ SMOKE counter in a cave. (G11.85)
- Removal of a $1 / 2$ " WP counter reveals all other hidden caves Accessible to that cave, plus all other hidden caves set up within the boundaries of the same Cave Complex (if any) which that cave is set up within, plus the above-ground entrances/exits of all tunnels that connect to that Complex (regardless of LOS), provided they are also at a higher level than that cave. (G11.851)
- An Allied prisoner in a Cave Complex cannot attack its guard. (G11.98)


## Essential Elements of an Excellent Scenario (E33) By George Hiotis

There a quite few Scenarios in the ASL world that are timeless classics in the sense that nobody gets tired of playing them almost an endless number of times and each time they are play they provide each player with more enjoyment than the previous time they've played them.
A few scenarios that come to mind are the classic "Tractor Works" and "Hill 621 ". Not only are these scenarios timeless classics, they are also most likely the scenarios that either started us on our journey to Squad Leader and our first baptism of fire on the old mounted map boards. For myself, I had even submitted to my English professor an essay that was actually an After-Action Report of Hill 621 only to get a passing grade of $80 \%$ so the game served me well.

Excellent as they seem to be we've never stopped to think what are the essential elements that make these scenarios appealing to play them an endless amount of time? I will attempt here to describe five essential elements.

## Perception of a challenging adversity with an element of hope

Themes such as, Operation Bagration and the Battle of Stalingrad seem to offer player the opportunity to recreate an alternative outcome to history despite great odds against probability. Take Scenario Hill 621 for example, the Germans start the scenario with a Task Check (TC), they are massively outnumbered by the Russian, and despite all these insurmountable challenges there are players that still select the German side and win this scenario.

The timeless classic that started most people in the hobby probably was Scenario A (1 in Classic) "The Guards Counter Attack" where players always contemplate how to best defend building "1F5". Again, having played this scenario a countless number of times who hasn't come out with cardboard paper board stories?

How to create a perception of a challenging adversity with an element of hope may be very challenging for scenario designers but certainly a good historical theme and a plausible order of battle need to be carefully intertwined here.

## Reflect a period of time where adversity was at its crescendo

There is no doubt that a period of time where it is perceived as a turning point in history does lend itself to being an excellent inspiration for scenario design that leads to creative and attractive scenarios. Most players of Advanced Squad Leader are also WWII history enthusiasts. By being WWII history enthusiast there is an attraction to play a battle where the outcome can either be different or better than the historical outcome.

For this reason, a well worded scenario card is a must for the scenario to attract players. In other words, it is essential to portray a battle accurately and to be able to depict the urgency for a victory for each side. As such, WWII has many occasions where adversity mounted to a critical point for the allies and the axis. Throughout the conflict from the axis near overrun of Moscow to D-Day there was not period of time where victory was a given - there was always an ebb and a crescendo of action that needed each to persevere in the face of adversity.

## Provides a simple order of battle or combined arms suitable for battle Scenarios that attracted my attention and I've played time-and-time again all had an order of battle that a player can readily understand at a glance. As a player I was able to understand with which side I could readily win although victory can sometimes allude you.

Also, the order of battle should readily depict the historical forces without crowding or overloading the map. This is an important point because this element can either break or make the scenario great. Who would want to play a Kursk scenario without any armor forces? On the hand, a well research scenario where a novel idea can be introduced in an otherwise saturated
theme can also provide great enjoyment. In other words, if a scenario found a strong case for an infantry only scenario regarding an armor battle like Kursk this could also be the catalyst for a great scenario.

## Requires movement to achieve victory

The requirement for forces to move rather than having a static firefight is another critical element in creating a great scenario. Both of previous classic examples had forces that required to move either as the defender or the attacker in order to win.

Movement is a critical element in a scenario because it keeps the player's attention focus on play throughout the scenario providing greater enjoyment than simply staying put and watching the dice rolls. It also provides greater interaction between opposing players. The element of movement by both sides being an important element in a great scenario may not be readily apparent to players and scenario designers, but ultimately as players we love action and not simply watching the dice drop.

## Victory conditions are simple to understand but challenging to achieve

Having clear victory conditions that evoke the need for players to plan out their victory because they are challenging is another element critical in an excellent scenario. Simply, moving your forces from point A to point B and counting CVP is too boring. Achieving a certain objective while keeping your CVP lower than your opponent sounds more interesting. Coupling condition with a historically accurate event is even more interesting.

Advanced Squad Leader players want to do more than sit in a chair and count beans. They want to relive the challenges that faced WWII squad level leaders or at best a battalion. Faced with the nitty-gritty tasks of leading an assault with a handful of men and taking their objective in the least amount of time. How many times has your opponent recounted stories about trying to take a victory location and in so doing lost their best leader? Victory conditions have to be conducive to this situation in order for a scenario to be considered great.

## Conclusion

In short summation, I recounted five critical elements about what leads to an Excellent Scenario or what I have coined as E3S. They are a scenario that has adversity, depicts critical event in the history of WWII, has the correct order of battle, involves movement, and clear understandable victory conditions. What was your favorite scenario of all time? Which have you played most often and are still not tired of playing over-and-over again?

## De haut en bas

# Tracing line of sight between different vertical levels in the Advanced Squad Leader game system 

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## Introduction

A few months ago, I was teaching a new player how to play Advanced Squad Leader.He'd played about a dozen times, and had a good grasp of the principles of infantry movement and combat, and even knew the basics of vehicles. Yet there was one aspect of play that eluded him: He consistently got confused over the question of whether units on different vertical levels had line of sight (LOS) to one another.

We were playing Scenario T1 (Gavin Take), in which my team of American 7-4-7 Airborne troops had to sweep through the French village of Chef-Du-Pont on D-Day, while destroying or evading his small garrison of German $4-6-7 \mathrm{~s}$ and $4-4-7 \mathrm{~s}$. The centre of the village, as depicted by board 3, contained a pair of two-hex stone buildings, which contained both a ground level Location and a first level Location. He had placed several of his squads, and both of his MMGs, in these first level Locations, believing that this would allow him to defend every important approach to the village. Unfortunately, because he could not properly visualize the rules of LOS, I was able to maneuver my attacking units into the village largely unscathed.
"I don't understand," he said, when I pointed out that his MMG in a first-level Location could not see my ground-level unit, because the LOS passed through ground level woods. "I'm at a higher elevation than you." By way of explanation, I used a set of props near the game board to demonstrate why a unit at Level One could see over a Level 1 obstacle to another unit on Level 1-but not to a unit at ground level.

This is not the first time I have encountered this difficulty when teaching ASL. I have used Scenario T1 for teaching games with other beginners. And
even though I am careful to explain the rules of inter-level sighting and fire, rookie players often make this same mistake. And even veteran players sometimes will get confused when they have to apply the LOS rules to complex situations involving, say, Depressions, Double-Crests, Cliffs and Continuous Slopes.

It is not so much that the ASL rules in this area are unusually complicated. But they are not organized within the rulebook in any one place, and so a proper understanding of inter-level sighting requires a cross-checking of principles described in different parts of the rulebook, including A6 (Line of Sight), B9 (Walls and Hedges), B10 (Hills), B14 (Orchard), B19 (Gullies), B20 (Streams \& Crest Status), B23 (Buildings) and B27 (Entrenchments). The purpose of this article is to bring a summary of these rules together in one place, and thereby help ASL players of all skill levels become more confident in their knowledge of the game's sighting principles. Because ASL is played on two-dimensional maps, the vertical (or 3rd) dimension of the game is the one that is most confusing, thereby acting as an inhibitor for new players who may otherwise be receptive to the game.

Even those players who will find little that is entirely new in this article may find it useful as a tool to help tutor less experienced players. Whether you're a Scenario Defender setting up your 88LL AT Gun to command the steppes of eastern Europe on a Level Three Hill hex, or a PTO Attacker trying to maneuver your 4-4-8's through a network of gullies without losing concealment, command of these rules can mean the difference between victory and defeat.

## The (very) basics

The basic unit of vertical measurement in ASL is the level. Level 0, also called ground level, is used as an arithmetic baseline, and (with some exceptions, such as on Desert Boards) is represented, in the case of Open Ground, by pale green terrain. Hills are designated, in ascending order of altitude and beige-to-dark-brown shading, as level 1, level 2, level 3 and level 4. Darker green colouring is used to designate a Valley, which is level
-1. But in all cases where a player seeks to determine the LOS between units on two levels, the absolute level of the units is not material. What is important is their relative position. All other terrain features being equal, an analysis of the LOS between units situated on levels 1 and 4, respectively, would not differ if those same units were located on levels 0 and 3; or levels -1 and 2.

While A2.1 tells us that ASL map boards are scaled horizontally to "an abstracted scale of 40 meters per hex," B10 is silent on the precise vertical scale represented by levels. However, since the vertical distance between levels is presented as being equal to the height of a story in a typical residential or commercial building, one may imagine it to be about 4 meters, which would suggest about a $10 \%$ grade for a hill that rises at the rate of one level per hex.

Rule A6.5, titled "Reciprocity," informs us that when checking LOS, "whenever a higher unit can see a lower unit...the lower unit can also see the higher unit." This is generally true, and will be assumed as such for purposes of this article. But players should remember there is at least one instance in which the principle of reciprocity does not hold true: Because a unit shooting out of a Location containing SMOKE suffers an extra +1 hindrance as per A24.8, situations arise when Unit A, being in a Location containing SMOKE, cannot see Unit B because of the accumulation of six or more hindrances (as per B.10); whereas Unit B, being in a Location that does not contain SMOKE, can see Unit A. (Indeed, just such an asymmetry is described in the last two sentences of the text that accompanies the illustrated example listed under A24.4.)

ASL also features Half-Level Obstacles, such as Walls, Hedges, Roadblocks and Rubble. Moreover, the obstacle height of multi-story buildings generally is equal to one half less than the number of storeys. (So while a one-hex building with only a ground-level Location will present a one-level LOS obstacle, a two-hex building which contains no stairwell symbol, with ground-level and first-level Locations, will present a one-and-a-half level LOS obstacle; and a multi-story building containing a
stairwell symbol typically will have ground-level, first-level and secondlevel Locations, and thereby present a two-and-a-half level LOS obstacle.)

When analyzing the effect of Half-Level Obstacles, context is important. In some cases, these half levels are treated as full LOS blockages-for instance, in the way that a wall or hedge may serve to block LOS between units on the same level. But in the context of inter-level LOS, including in regard to the calculation of Blind Hexes, they often are disregarded entirely from consideration. In yet other cases-such as the TEM afforded by a Wall or Hedge when a unit on a higher level is firing at a unit at a lower level-the protective effects of a Half-Level Obstacle may be retained, but subject to arithmetic modification. All of this will be discussed in the material below.

## Article parameters

In writing this article, my intent was to describe situations arising during scenarios that present common terrain features whose height is defined on the basis of levels and half-levels-such as hills, gullies, woods, buildings, walls and orchards. However, the ASL game system also encompasses other terrain types that, in some cases, come with their own unique rules in regard to three-dimensional LOS. These include Beaches (G13.2), Hillocks (F6), Caves (G11.11), Dense Jungle (G2.2), Bridges (B6), Alpine Hills (B10.211), Slopes (Q3), Cellars (O6), Bocage (B9.5), Marketplaces (B23.73), Climbed cliffs (11.4), Sewers \& Tunnels (B8), Combination Terrain (Q5), Towers (B34), Hill Depressions (B19.5), Rooftops (B23.8), Split Level Buildings (B23.72), andFactory Interior Walls (O5.3). To keep this article to manageable length, I have resisted the temptation to incorporate these terrain types in my analysis.

In general, I will refer to LOS from one level to another as being "interlevel" in character when the level of the sighting/firing unit is different from that of the target unit. This is not a term of art within the ASL game system, but it is a term that I found to be a useful organizing principle for this article.

In regard to graphical representation, the ASL rulebook provides many fine illustrations that help explain the rules of LOS. At many points, I will


COMPREHENSIVE INTER-LEVEL LOS EXAMPLE
refer to these illustrations for explanation or emphasis. However, I also have decided to produce my own illustrations (using the VASL software system), for two reasons: (1) Many of us have read (or at least browsed) the ASL rulebook so many times that our mind's eye no longer properly appreciates the information contained in the images - much as a person might gradually learn to tune out the decades-old furnishings and art in a well-known office or abode; and (2) I have drawn inspiration from the "Comprehensive Rout Example" contained on pages A28-29 of the ASL rulebook (which I always have regarded as the gold standard in ASL pedagogy), to provide a "Comprehensive Inter-Level LOS Example."

Everything contained herein applies equally to ETO and PTO scenarios, subject only to the somewhat obvious modifications in regard to terrain features-such as the fact that Jungle is a two-level obstacle (instead of the one level for plain woods).

## The plateau principle

The rules governing inter-level sighting are designed to encode our common sense understanding of three-dimensional geometry into the ASL game system. The most important are contained in B10.

B10.21 makes the rather obvious point that " $[u]$ nits at the same level can trace a LOS to each other (barring intervening LOS obstacles-including higher Crest Lines) regardless of the presence of intervening equal or lower elevation Crest Lines."

B10.1 offers the common sense rule that "any terrain upon [hills] rises normally from this new level to form new height equivalents. For example, a one level obstacle on a level 1 hill hex becomes a level 2 obstacle to the LOS of a unit at level 0 ." This would mean that a multi-story building, which is a two-and-a-half-level obstacle, situated in a Valley, would block LOS between two units situated on level 1 hill hexes. (This effect of blocking same-level horizontal fire is one of the only practical effects of that extra half-level height that sits atop multi-hex buildings in ASL.)

Think of all of this as the (again, rather obvious) principle of planar, purely two-dimensional sighting (as opposed to the more complicated concept of diagonal sighting, which will get us to the whole concept of Blind Hexes, discussed below): When Units are at the same level, they generally can see each other unless there is an intervening obstacle-or more than five hindrances (as per B.10).
(ASL also provides at least one example of purely one-dimensional sighting, as when Units fire straight up or straight down stairwells in buildings. This simple case is governed by B23.26, which states that "[a] ttacks up or down a stairwell hex to other vertical levels of the same building hex are limited to the next higher or lower level.")

## Diagonal sighting

B10.21 defines a Crest Line as being "formed in every hex where two different full-level elevations meet." In plain visual terms, these are the squiggly lines that separate one colour-coded hill level from another. According to the idiom employed by the ASL rulebook, Crest Lines generally are described as being at the higher of the two levels that the Crest Line separates (in keeping with the English definition of "crest" as being "the top of something, especially a mountain or hill"). So a "3rd level Crest Line" refers to a Crest Line that separates a level 2 hill hex and a level-3 hill hex.

Crest Lines should not be confused with "Crest Status," discussed below under the larger category of Depressions.

The appearance of Crestmeans that the associated hexside is considered a Crest Line hexside (the term "Crest line hexside" appears rarely in the rules-but is worth clarifying nonetheless). Units that cross a Crest Line hexside always change levels in doing so. In some cases, the question of which side of a Crest Line hexside contains the actual Crest Line artwork is important. (B9.35 and B9.6, for instance, specify that when a Crest Line hexside also is associated with a wall or a hedge, the base level of the wall or hedge will depend on the relative position of the Crest Line and wall/ hedge artwork.) But for purposes of B10.2, discussed immediately below, such considerations are immaterial.

B10.2 states, in part, that "[a] lower level unit may trace a LOS into only the initial Crest Line hexside of each level above it. Likewise, a unit may trace a LOS to a lower level only if the higher unit traces its LOS through a Crest Line as it leaves its hex." These two sentences reflect the same reciprocally applied rule-the first sentence being from the perspective of the lower unit, the second sentence being from the perspective of the higher unit. In plain language, it means that a unit sitting on ground level will be able to see enemy units situated on a Level 1 hill only if those units are situated at the very edge of the hill-i.e., in a hex that contains the (only) ground-level/level 1 Crest Line hexside through which the LOS passes.

The examples provided in the rulebook alongside and under B10.2 emphasize some helpful refinements. As the top diagram shows, the application of B10.2 does not treat Open Ground as Inherent Terrain for purposes of blocking LOS. Which is to say: LOS may freely pass along the hexside of a hill hex that would otherwise present an obstacle under the provisions of B10.2. The bottom diagram makes clear that (subject to the rules governing Blind Hexes) a higher unit's LOS may freely pass through multiple Crest Lines, so long as each Crest Line crossed is successively lower than the one before it.

If every ASL scenario were played on featureless Open Ground terrain that consisted of nothing except hills and valleys, you really wouldn't need much more than that. But of course, most map boards are full of obstacles such as buildings, woods and orchards, which complicates the analysis-and not just in the simple vertically additive way specified in the first sentence of B10.1.

Going back to the example from Gavin Take that I described in the opening paragraphs of this article, we find that the rule barring fire from a first level Location from passing over ground-level-based woods to groundlevel targets is contained in B10.22: "A unit always requires a height at least equal to the height equivalent of an obstacle to see past it to a samelevel target. Therefore, a unit on a Level 1 hill hex or on the first level of a building is high enough to see over ground-level-based woods (or any other level 1 obstacle at ground level) symbol to a level 1 or higher target." That, in a legalistic nutshell, is why my friend had trouble with our scenario.

See Comprehensive Inter-Level LOS Example. The 6+1 cannot see the 8-0, but he can see the 7-0. The 9-1, on a Level 2 hill, can see the 8-1; but he cannot see the 7-0, because the woods in U8 on a level 1 hill presents a level 2 obstacle. (However, the 9-1 could see the 7-0 if the 7-0 were in X6.)

But that same rule-a model of clarity, as compared to some of the others we will be considering-also states that a Level 1 hill hex "is also high enough to see over a wreck/AFV or Half-Level Obstacle (such as a wall/hedge) at ground level and thereby negate the effects they exert on a same-level LOS."

That latter part of B10.22 explains why it usually a good idea to place defensive units on the first level of a two-story house when your enemy is attacking through rural or pastoral terrain: Your one-level height advantage, though insufficient to see over woods and in-season orchards, is just fine for gaining unhindered LOS to Units coming at you through grain, brush, kunai and crags. (That said, these features will still affect fire when those features are present in the targeted hex itself. For instance, in-season grain always serves to negate FFMO, no matter the height level of the firing unit.)

See Comprehensive Inter-Level LOS Example. The 3-3-7, being on level 1, has an unhindered LOS to the 2-3-6. If I9 were a ground level hex, the 3-3-7 would not be able to see the 2-3-6.

## Blind Hexes Produced by Obstacles

Go up to your attic and look out the window at the shed in your backyard (assuming, of course, that you have an attic, a backyard, and a shed). No matter how high your attic, there is always going to be some area behind the shed that is blocked to your view. This concept is what is captured by "Blind Hexes," as explained in A6.4, which reads, in part: "Assuming an otherwise clear LOS, even if a firing (or target) unit is at an elevation > the height equivalent of any intervening full level obstacle, a number of potential target hexes that are both directly behind that obstacle and also equal to the full level height equivalent (i.e., ignoring any half-level) of that obstacle are considered Blind Hexes to the firer."

This is an area of the LOS rules that most experienced players know fairly well in theory (even if it is sometimes misapplied in practice), so I will orient my discussion here toward new players-even more so than in other parts of this article.

In my experience, the best way for beginners to understand the ASL arithmetic at play with Blind Hexes is by reference to the most commonly encountered set of circumstances: a firing unit at level $\mathrm{X}+2$ (most commonly, a level 2 hill, or a level 2 Location within a multi-story building), and a target unit at level X (ground level, most commonly) with LOS passing
over an obstacle that rises to level X +1 (most commonly, a 1-level woods or building obstacle whose base sits at ground level).

In this baseline case, the number of Blind Hexes will be equal to 1 , plus 1 extra for every full multiple of five hexes distance from that level 2 unit to the obstacle. So if the firing unit is $1-4$ hexes from the woods, there is only one Blind Hex. If the firing unit is $5-9$ hexes from the woods, there are two Blind Hexes. If the firing unit is $10-14$ hexes from the woods, there are three Blind Hexes, and so on. It is useful to think of this quantum as the unmodified Blind Hex count-with the modified (i.e., actual) number of Blind Hexes going up or down as follows:

Up: As per A6.42, the number of Blind Hexes goes up by one for every extra height differential between the obstacle height and the height at which the target sits. To adapt the example alluded to in the parentheticals above, imagine that a level 2 firing unit is shooting over a ground-level-based woods (which presents a 1-level obstacle), but now the target is sitting in a Valley, at level -1 , instead of at ground level. This would boost the number of blind hexes by one. So in this case, if the firing unit is 5-9 hexes from the woods, there would now be three Blind Hexes instead of two.

Down: As per A6.43, the number of Blind Hexes goes down by one for every extra height differential between the higher unit's height and the obstacle height. To adapt our example, imagine that we now have a level 3 firing unit shooting over a ground-level-based woods (which presents a 1 -level obstacle), with the target at ground level. This would reduce the number of blind hexes by one. So in this case, if the firing unit is 5-9 hexes from the woods, there would now be just one Blind Hex instead of two. However, regardless of the higher unit's level, the number of blind hexes behind an obstacle (not a Crest Line, as discussed below) can never be reduced to zero. (Think of the attic/shed example, above: Even if your attic were three or four storeys high, there still would be some area behind the shed where someone could hide from your sight.)

See Comprehensive Inter-Level LOS Example. The 10-2 on a level 4 hill, looking in the direction of the 2-3-6, can see J5 and I6. H6 is a Blind Hex because of the woods in I6. Since G7 is at level 1, not level 2, the number of Blind hexes produced by the level-3 obstruction in I6 is increased by one, as per A6.42, meaning that G7 is a Blind Hex as well. By the same reasoning, the same is true of F7-which lies one more hex away from I6, but also sits one level lower. Thus, I6 creates three Blind Hexes. E8 also is a Blind Hex, because of the woods in $F 7$ (despite the fact that the 10-2 has no LOS to the F7 base level). Not until the range extends to D8 and beyond is the LOS unobstructed.

The 10-3, on a level 3 hill, is looking toward the 2-2-7 Crew. If F1 were a ground level hex, the 2-2-7 would be Blind to the 10-3, because H2 is a 2-level obstruction. But because F1 has a base level of 1, H2 causes only one Blind Hex, and so the two units can see one another.

## Blind Hexes Produced by (single) Crest Lines

Let's take that attic-shed thought experiment and change it slightly: Now, there is no shed. But the terrain in your backyard drops downhill as you walk toward the back of your property, away from your house. The question presents itself: Does this sort of terrain feature-the Crest Line of a hill— also create a blind hex?

The answer is: yes, sometimes.
The rules for calculating Blind Hexes for non-cliff Crest Lines (we will get to cliffs shortly) are contained in B10.23, and present an adaptation of the rules for obstacle-based Blind Hexes contained in A6.4. Though the method of calculation is very similar, it is my experience that, for conceptual purposes, it is more useful simply to treat the rules for Crest Line blind hexes in their own unique way.

Again, let's use a commonly encountered set of circumstances: a firing unit at level 2 and a target at ground level. But in this example, LOS won't pass over a woods obstacle. Instead, it will pass over one or more level 1 hill hexes-the last of which is referred to in B10.23 as "the Crest Line hex."
(This term appears only once in all the B -section rules. It is important to understand that it refers to the higher of the two hexes separated by a Crest Line.)

In this baseline case, the number of Blind Hexes is now equal to zero, plus 1 extra for every full multiple of five hexes distance from the level 2 unit to the Crest Line hex. One crucial conceptual difference to remember here: With obstacles, there always will be a minimum of at least one blind hex. But with crest lines, the minimum is zero.

As with Blind Hexes produced by obstacles, the number of Blind Hexes can go up or down depending on the relative position of the viewing and viewed units. This is because the last sentence of B10.23 tells us that rules A6.42 and A6.43 (described in the previous section, in the points tagged up and down) apply to Blind Hexes created by Crest Lines: "The Blind Hexes created by these Crest Lines can be reduced to a minimum of zero by A6.42 or increased by A6.43 (whose effect is described in the paired bullet points contained in the immediately preceding section.) Thus, a viewing unit at level 3 could see over a continuous line of up to nine level 1 hexes without a Blind Hex being created. If the viewing unit were at Level 4, that would go up to 14 hexes.

See Comprehensive Inter-Level LOS Example. The 1-4-9 on a level 2 hill can see the 1-2-6 because the Crest Line in I7 (i.e. at the I7-H7 hexside) produces only one Blind Hex. If the 1-2-6 enters H7 in bypass toward I7, it will thereby leave the 1-4-9's LOS, since both the G7-H6-H7 and H6-H7-I7 vertices are Blind to O7. By contrast, the 1-4-9's LOS to the 4-4-7 is not blocked-even though the LOS goes through the second-level Hill art in K7, because $K 7$ is only four hexes from 07 .

## Blind Hexes Produced by Double Crest Lines

If LOS from a higher level unit to a lower level unit passes through a Double-Crest hexside (e.g. A non-cliff hexside that separates a level 3 hill hex from a level 1 hill hex-see B10.52), the arithmetic detailed above holds true, but with one important difference, stipulated in the exception
embedded within B10.23: A Double-Crest (unlike a single Crest) always will produce at least one Blind Hex.

See Comprehensive Inter-Level LOS Example. Both the 6-6-6 and the 5-3-6 are Blind to the 3-3-6, because the Double Crest Line at N3-N2 will always yield at least one Blind Hex. This result would still hold even if N4 and $O 5$ were at level 5 .

## Blind Hexes Produced by Cliffs

As per B11.21: For purposes of calculating Blind Hexes, a cliff is treated exactly like a normal Crest Line, except that it always produces a minimum of one Blind Hex. (Cliffs bordering Depression hexsides-which effectively constitute a special class of cliff-are discussed later in this article.)

## Half-Level Obstacles

Half-Level Obstacles-such as hedges, walls, roadblocks, rubble, and the extra half-level that sit atop buildings with more than one story-never produce Blind Hexes when a unit fires from a higher level to a lower level. However, in some cases, the elevation differential may serve to reduce (or even eliminate) the TEM provided by Half-Level Obstacles.

The operative rule here is B9.33, which instructs us to "[d]etermine the height of the firer above the base level of the target hex and reduce the TEM of that wall/hedge hexside by one for each full level by which the height difference exceeds the distance to the target hex (to a minimum TEM of 0 )." This means that ground level units claiming the TEM of a wall would receive +1 TEM, not +2 , if being fired on by Level 2 units in an adjacent hex. (Note that the term "base level," which appears intermittently in the rules, refers to "the lowest level Location other than cellar/sewer/tunnel in a hex. With only the most obscure exceptions, this will mean -1 for a Valley or Depression, 0 for Open Ground, 1 for a level 1 hill, and so forth.)

Moreover, C5.31 tells us, by reference to C6.61, that these elevation effects also apply to the CE DRM that protects the crew of an open-top

AFV. A typical example here would be an OT AFV whose crew usually gets a +2 CE DRM, situated in bypass in a hex containing a multi-story building. The crew of that OT AFV would receive no CE DRM if fired on by a unit in the second story Location of that bypass hex, and a +1 CE DRM if fired on by a unit in the first story Location.
(This is especially important given the provisions of D5.311, which specify that an Unprotected Crew that suffers a result on the IFT is subject to PTC/MC/K/KIA results-as opposed to ordinary Stun/Recall results. For purposes of this rule, "Unprotected Crew" includes "any OT AFV receiving either Air Bursts or fire from a higher elevation whose elevation advantage is > the range"-which would include both examples described in the last sentence of the previous paragraph.)

B9.33 also specifies that " $[\mathrm{i}] \mathrm{f}$ a wall/hedge TEM is reduced to 0 in an otherwise Open Ground hex, Interdiction and FFMO are allowed and any HD status is negated."

Moreover, in the case of Direct Fire against a vehicular target that is claiming Hull Down status, B9.33 specifies that elevation effects can affect the location of a hit. Specifically: "If the TEM of a wall is reduced to +1 by elevation effects, any HD target is subject to a -1 drm to the colored dr of the To Hit DR of any such Direct Fire shot against it for Location of Hit purposes only." In such situations, in other words, the vehicle is only partially Hull Down-meaning that a hull hit is less likely than would normally be the case, but is not impossible. And, of course, in the rare case that a height differential would cause the TEM of a wall to be reduced to zero-because the differential is two greater than the range to the targetany vehicle behind the wall would not receive any hull-down advantage at all.

See Comprehensive Inter-Level LOS Example. If the 6-6-7 on a level 2 hill fires at the adjacent OT AFV in Q3, the AFV crew would receive +1 CE protection instead of +2 , because the height differential exceeds the range by one. If the $A F V$ were in the P2 Gully, at level -1, then the crew of the $A F V$ would receive no TEM from the 6-6-7's fire attack whatsoever.

## Where is the wall?

In situations where a wall or hedge sits along a Crest Line hexside, there can be ambiguity about its vertical placement. In this regard, B9.35 informs us that " $[a]$ wall/hedge which lies along a hexside common to two adjacent hexes with different Base Levels is on the lower of the two Base Levels if some of the lower Base-Level's terrain is depicted between the wall/hedge depiction and the crest line (e.g., 3U4-V4). If not, the wall/hedge is a Hillside wall/hedge (9.6)."

If you incorporate the content of B9.6 into this, one finds that, in plain English, the rule amounts to this:

If the artwork plainly shows the wall/hedge to be at the lower level, with background terrain appearing in between the wall/hedge and the squiggly Crest Line, then treat the wall/hedge as being at the lower level. (Picture yourself walking down a hill and encountering a fenced-in (or hedged-in) property when you get to the bottom of the slope, like the German 4-6-8 coming to visit the humble home of the Russian 4-4-7 in the first of the two illustrations that accompany B9.34.) An example of this, contained in the Comprehensive Inter-Level LOS Example, is the wall at the I8-I7 hexside.

In all other cases-including those cases in which the wall/hedge artwork is depicted as being precisely congruent with the Crest Line-the wall/hedge is treated as being at the higher of the two levels. A terrain feature that arises under this bullet point is always referred to as a "Hillside Wall/Hedge." And it is clarifying to look at the pencil sketch that sits atop B9.6-showing a little villa surrounded by a wall to keep out the riff-raff, on the other side of which sits a downward sloping hill. An example of this, contained in the Comprehensive Inter-Level LOS Example, is the wall at the X6-W6 hexside.

In regard to the analysis of inter-level LOS, all of this is of somewhat limited significance, because B9.61 informs us that" $[a]$ Hillside wall/hedge...
is ignored...when determining whether or not a LOS exists between units whose elevations differ by $\geq$ one full level." This aspect of Hillside Walls/ Hedges will be discussed further in the section under Continuous Slope, below.

## Shellholes, bridges, and entrenchments

Following immediately upon the discussion of elevation effects in regard to walls and hedges, the last sentence of B9.33 informs us that the "TEM of shellholes, bridges, and entrenchments can be reduced in a similar manner by a firer's elevation advantage." By way of example, this means that a target unit in a ground level trench would not receive any protecting TEM if fired upon by an enemy unit at Level 3 in an adjacent hex. Moreover, assuming the targeted hex is Open Ground, units in that trench would be subject to Interdiction and FFMO in regard to fire from that adjacent Level 3 unit.

One commonly misunderstood rule pertaining to entrenchments is contained in B9.21: "A unit in an entrenchment cannot see (or be seen) across a same-level wall/hedge hexside/hexspine forming a part of the unit's hex to (or from) any non-adjacent same-level or lower Location." (The idea here is that you cannot sit in a hole in your backyard while simultaneously peering out over your fence. (But the qualifier "non-adjacent" means that you could see your neighbour if he were just on the other side of the fence, keeping an eye on you.)

Nothing in the previous paragraph touches directly upon the subject of this article. But it bears mention because of the last sentence of B9.21, which serves to inform us that the rule's LOS-blocking provisions are completely ignored if the other unit has "an elevation advantage of at least a half-level over the Entrenchment." Which is to say: If your neighbour were standing atop his child's jungle gym, you would have no problem seeing one another, no matter how far he was from your fence.

See Comprehensive Inter-Level LOS Example. If the 7-4-7 in D8 were entrenched, he could see E8 and E9, but not F8. However, he could see the

6-6-8 in G8, since he is one level higher, and the LOS does not go through F8.

## The Enigma of Orchards

Where multi-level LOS is concerned, there is perhaps no terrain feature in ASL that causes as much confusion as orchards (B14). That is because (a) Their effect on LOS varies significantly as between in-season status (April through October, inclusive) and out-of-season (November through March); and (b) When in-season, an orchard is, in effect, a compound terrain feature in regard to its vertical character. Always make sure you double-check the seasonal status of orchards before embarking on a scenario-including the SSR.

Whether in-season or out-of-season, orchards are one level high. As per G4, all of the analysis contained herein applies to PTO Palm Trees (except for the obvious caveat that Palm Trees are never out-of-season).

## In-Season Orchards

B14.1 describes an orchard as "a thinly wooded area devoid of undergrowth." What those last three words-"devoid of undergrowth"mean in game terms is that same-level fire isn't blocked by an orchard, because all the low-level branches have been pruned away up to a height at which men and vehicles may see one another. For same-level fire, the orchard presents a mere hindrance (due, presumably, to the tree trunks themselves) not unlike Brush, Grain or Crag. But inter-level fire from an upper-level location that passes through lower-level in-season orchards always gets blocked, because the lush upper canopy of the trees is opaque, like woods. (The question of whether LOS from an upper-level unit passes throughinstead of over-an orchard is determined using the ordinary Blind-Hex rules described above.)

## Out-of-Season Orchards

Out-of-season orchards have no leaves (or so I imagine), and never block LOS. Instead, they act as a Hindrance. In the case of fire between different levels, one would think that the way to calculate the number of Hindrances would be analogous to the way one calculates the number of Hindrances for same-level fire: Just add a +1 hindrance for each orchard hex through which the LOS passes. And, indeed, this is the way many playerseven some advanced players I've encountered-(mistakenly) play the game.

The actual rule is slightly more complicated-and, in cases where there is a substantial height advantage, far more generous to the shooter. As B14.2 informs us: "Each out-of-season orchard hex presents a +1 Hindrance to any LOS drawn through it to/from a Location higher than the base level...of the orchard hex. However, if the LOS is drawn to/from a Location > one level higher than the base level of the out-of-season orchard hex, only one +1 Hindrance DRM applies, and only if the LOS crosses an orchard adjacent to the ground level target/firer."

To illustrate how all this works, imagine a column of enemy infantry advancing through a plain covered with out-of-season orchard. A defensive unit at ground level would have a difficult time getting a good shot (until they got to close range), because every hex through which the LOS passes would add +1 Hindrance. The same would be true if the defensive unit were on a level 1 hill, since, as we just learned "Each out-of-season orchard hex presents a +1 Hindrance to any LOS drawn through it to/from a Location [one level] higher than the base level...of the orchard hex."

But if the defensive unit were on level 2 or higher, suddenly, there will be only one Hindrance-no matter how many orchards the LOS actually passes through - since this is a situation by which "the LOS is drawn to/ from a Location > one level higher than the base level of the out-of-season orchard hex." And if the defensive player should find an opportunity to get off a shot whose LOS passes through a non-orchard hex adjacent to the target hex, there would be no Hindrance whatsoever-no matter how many orchards the LOS actually went through before hitting that non-orchard hex.

Now consider the same situation, but this time the orchards are inseason. In this case, the ground-level shooter's (high-Hindrance) shot would be completely unchanged. But both the Level 1 and Level 2 shooters would be blocked entirely by the leafy canopy.

See Comprehensive Inter-Level LOS Example. If orchards are inseason, then the 2-3-7 cannot see the 8-1. Even if AA9 were a level-2 hill, the LOS would be blocked, since U10 creates two Blind hexes at that range. If AA9 were a level-3 hill, then LOS would exist, since the number of Blind Hexes from U10 would be reduced to one. If orchards are not in season, then the 2-3-7 may fire at the 8-1 with +4 Hindrance, the same result as if AA9 were ground level. But if AA9 were a level 2 hill, then there is no Hindrance whatsoever, even though the LOS passes through the orchard in U10, because the last hex through which the LOS passes en route to the 8-1 (T9) contains no orchard

## In-Season Orchards

On many map boards, terrain features, such as woods and orchards, will appear on both sides of a Crest Line within the same hex. Even some experienced players are unsure about how to treat these situations: Is the total obstacle/Hindrance height always calculated on the basis of the height of the hex-or on the basis of the height of that portion of the hex through which LOS passes?

As it turns out, the treatment of such situations under B10.1 varies according to whether the terrain feature is Inherent Terrain or not: "Inherent Terrain (B.6), whether a one-level obstacle or Hindrance (e.g., orchard) or a half-level Obstacle (rubble) or Hindrance (crag, wreck) rises from the actual hill depiction (i.e., in a Hill-Orchard hex, LOS that crosses the hill depiction is affected up through level 2; LOS that does not cross the hill depiction is only affected through level 1)." OR "Other [non-Inherent] terrain (e.g., grain, brash, woods, building) is at the higher level throughout the entire depiction of the terrain in question, for LOS purposes...even if it appears to be rising from the lower level portion of the hill hex."

In regard to the second category-non-Inherent terrain-B10.1 also throws in this caveat: "Newer boards may depict visible Crest Lines beneath this other terrain (EX: 61F8), in which case the actual Crest Line is used to determine LOS as is the case with Inherent Terrain]." Though this may seem confusing, it is consistent with a general rule that may be helpful for players to internalize: If the map art associated with a terrain feature is drawn in such a way that it allows players to see exactly where the Crest Line art is, players should treat the obstacle or Hindrance as rising from the hex's Base Level only in those areas corresponding to the actual hill depiction (as with Inherent Terrain, under the first bullet point above). If the map art associated with a terrain feature is drawn in such a way that it blocks out the exact contours of the Crest Line, then players should treat the obstacle or Hindrance as rising from the hex's Base Level in every part of the hex that is covered by the terrain feature.

The animating idea here is that application of the rules should never require players to dispute the path of an unseen Crest Line. However, a glitch in the system arises in the case of dense jungle-which is inherent terrain (G2.2) while also sharing the same Crest-Line-obscuring artwork as ordinary woods. And so in the case of dense jungle that exists in a hex containing Crest-Line artwork, the jungle would be considered to exist at the higher level up to the boundary of the hex.

See Comprehensive Inter-Level LOS Example. Assuming orchards are in season, the $6+1$ at level 2 cannot see the 1-2-8, because the orchard terrain running along the Y5-Y6 hexside is at level 1. If X6 were an orchard instead of a building, the 6+1 would still be able to see the 7-0, because none of the terrain in X6 is situated at level 1.

If the 6-6-6 in N4 were shooting at the 7-6-7 in K4, the shot would be subject to a +1 Hindrance from the Brush in both L4—even though the portion of the L4 Brush through which the shot travels would appear to correspond with level 3 artwork-because Brush is non-Inherent terrain. (This latter result would seem to defy common sense, but is required by a true application of B10.1.)

## Continuous Slope

The provision for Continuous Slopes under B0.5 ranks as one of the more underused rules within the game. That rule asserts: "A Continuous Slope is a change in elevation such that, in each hex successively crossed by the LOS, the elevation changes by one level in a continuous gradient. All rules pertaining to same-level LOS also apply to Continuous Slope LOS [EXC: walls/ hedges and AFV/wrecks (D9.4)] even though the latter term is not mentioned."

That last sentence is the money line in at least two situations:
-Machine gun fire lanes can be placed by a unit sitting atop a hill, to attack units moving in lower level hexes. The geography has to present itself in exactly the right way, of course-which is why it is sometimes worth keeping the Continuous Slope rules in mind when you are placing your hilltop defences at setup. (Also note that this same rule would permit a unit sitting at a lower elevation to set up a fire-lane defence against hilltop attackers descending from above-though I have never seen this tactic used.)

- The Continuous Slope rules also allow a player to negate the abovediscussed rule that otherwise obstructs inter-level fire through in-season orchards. (The idea here is that the LOS from the uphill unit is precisely aligned, at all levels, with the pruned lower section of the orchard trees.) Naturally, these orchards would still constitute Hindrances-including for fire lanes, as per A9.22.

Taken in isolation, the words "EXC: walls/ hedges and AFV/wrecks (D9.4)" are somewhat ambiguous-because it is not clear whether this reference pertains to walls, hedges, AFVs and wrecks in their capacity as TEM, or as Hindrances/obstacles. But in light of the rules describing Hillside walls/hedges-specifically, those contained in B9.61-it follows logically that these features retain their protective status as TEM for shots taken along Continuous Slopes, but do not serve to block or hinder LOS when shots merely pass through these Half-Level Obstacles.

See Comprehensive Inter-Level LOS Example. If the Berserk 3-4-8 in M9 charges the HMG-armed unit in M5, the unit may lay down a fire lane that hits the 3-4-8 in M8, M7 and M6 (as well as M5 itself, as per A9.22). If the 3-4-8 should perish on its way uphill, the fire lane also could affect units that pass through M9, since it too lies on the same Continuous Slope.

## Smoke

Like much else in the ASL game system, SMOKE has a precisely determined height - two or four levels, depending on SMOKE type and the circumstances of use, as per A24.4. And the question of whether SMOKE hinders LOS generally can be governed by the same principles noted above. However, there is one possibly confusing situation that deserves discussion.

Imagine a situation in which conventional 2-level Smoke sits in a multi-level building hex, with an infantry unit sitting at a level-2 building Location within that same hex. Clearly, that unit could fire at another level-2 unit without incurring Hindrance from the Smoke, since the LOS would sit (just) above the maximum height of the smoke. But what about a situation in which the unit fires diagonally downward toward a unit at Level 1 or Level 0 ? Do the rules reflect the geometric reality that the LOS will pass glancingly through a lower, smokey part of that same hex en route to the target? Or is the proper analysis one that takes a more stepwise hex-by-hex approach, by which the LOS would be judged to be free and clear of Smoke?

As it happens, the question is answered clearly by way of the example shown under A24.4 (6-6-6 Squad A firing at 4-6-7 Squad B.) This clearly shows that same-hex SMOKE extending just up to the level of the firing unit does indeed hinder the fire of a unit firing diagonally downward. (Of course, the firing unit would not incur the extra +1 Outgoing LOS Hindrance under A24.8, because the unit itself is not in a SMOKE-containing Location.)

One other interesting phenomenon that bears mention is the effect of drifting SMOKE rising from a hill hex. SMOKE generally rises from the base level of a hex (even if it is produced by ordinance aimed at an upper level of a building). In response to wind, SMOKE will drift uphill, as per

A24.61, so Smoke at level 1 will rise two levels, to Level 3. And if the adjacent hex that the Smoke drifts into is level 2, the drifting Smoke will roll uphill and rise from level 2 to level 4. However, Smoke does not drift downhill. So if Smoke that starts in level 1 drifts to a level 0 hex, the drifting Smoke will still rise in the level 0 hex from Level 1. And so level 0 units in that hex will have a clear LOS under the Smoke to other level 0 targets.

## Depressions

Complicating the analysis of inter-level LOS rules is the appearance of Depressions in the form of Gullies, Streams, Sunken Roads and (more obscurely) Sunken Railroads.

In the most basic conceptual sense, the inter-level LOS rules for Depressions relate in a very simple way to the ordinary treatment of LOS between different vertical levels: A unit IN a Gully (with the capital letters of "IN" herein signifying that the units are, as A. 6 bluntly informs us, "at the bottom of it") is at one level lower than the in-hex terrain surrounding the Gully. So units that are IN a Gully that is itself situated in Level 0 Open Ground would be considered at level -1. And units that are IN a Gully that is situated on a Level 1 hill would be considered at level 0 . So far, so simple. (Note that I often will use the term Gully instead of Depression, because it allows a clearer image to form in the reader's mind, and because the rules that are applicable to Gullies in regard to inter-level LOS also apply, in identical manner, to other forms of Depressions.)

But there are other ways in which the rules for Depressions present important complications to the ordinary treatment of inter-level LOSwhich is why, when teaching new players ASL, I usually wait a while before introducing Gullies into the mix. Specifically:
(1) Because Gullies comprise, as B19.1 puts it (with a somewhat unusual nod to the hydrological sciences), "relatively narrow slits carved into the earth by once powerful streams," LOS to and from Gully hexes is constrained by an additional, entirely separate, and far more restrictive set of sighting rules.
(2) Thanks to the Crest Status rules, Depression hexes have what might be called a hybrid vertical character, presenting players with what are, for practical purposes, two separate levels within the same hex, but without the usual organizing principle of formally separated levels.

Before proceeding, it should be noted that for LOS to exist between two units, they must (as per A6.4) satisfy the requirements under the normal level-to-level rules described in the first half of this article; and the rules pertaining to Depressions. If either method of analysis yields a blocked LOS, then it cannot be salvaged by appeal to the other method.

## Seeing in and out of Gullies

The basic rule for seeing INTO a Gully (with "INTO" here being used in a manner corresponding in meaning to "IN") is specified in A6.3: "A unit must be at least one level higher for every hex of range to units IN a Depression to have a LOS to them." This means that a Unit occupying a ground level hex can see INTO a level - 1 Depression hex only if the two hexes are adjacent. And a Unit in a second level Location could see into a level-1 Depression three hexes away.

See Comprehensive Inter-Level LOS Example. The 2-3-7 in AA9, at level 1, can see INTO AA10, Z9 and Y9, but not INTO X8 nor INTO any other Gully hex.

But embedded within A6.3, there is an important exception to this: "Units with a clear LOS between them through other continuous Depression hexsides (exclusive of vertices) need not count those intervening Depression hexes in determining the necessary elevation advantage." This language is somewhat confusing, but the meaning is rendered clear by the accompanying example. What it describes, in effect, is the simple geometric phenomenon by which an elevated viewer positioned at one longitudinal end of a ditch may look down and see every point within that ditch, until such point as the path of the ditch meanders in such a way so as to break the path of the viewer's sight line.

One final complication: the edges of Gullies, like Crest Line hexsides, can be cliffs (as depicted in the first illustration under B11). If a unit IN a Gully traces LOS through a "Depression cliff" (as it is termed under 11.2), such LOS may never extend to any non-adjacent hex, regardless of height advantage. See the example under B11.21 for more information.

See Comprehensive Inter-Level LOS Example. The AFV in Q3 would be able to see INTO P2 (because his height advantage of 1 is equal to the range, which also is 1). The AFV also can see into O2 because (a) it can see into P2, and (b) the path of the unit's LOS toward the O2 center dot remains within the Gully artwork from such point as the LOS path leaves the P2 center dot, until such point as the LOS path intersects with the P2-O2 hexside. By the same principle, the AFV also can see into N1 because (a) it can see into O2, and (b) the path of the unit's LOS toward the N1 center dot remains within the Gully artwork from such point as the LOS path leaves the P2-O2 hexside, until such point as the LOS path intersects with the O2N1 hexside.

## A hybrid creature

Depression hexes have what might be called a hybrid vertical character. As noted above, a Unit IN a Gully is considered to be at the bottom of the Gully. But units that are merely "in" (note the use of lower case) a Gully are imagined to be stationed near the lip of the Depression, effectively at Ground level, peering out over the horizon as if they were in a foxhole. These units are described in the rules as having "Crest Status" (not to be confused with Crest Lines and the associated terminology relating to the transition between one hill level and another). Under B20.9, they are "considered entrenched one level higher than the Depression"-i.e. entrenched at the same level as the in-hex terrain surrounding the Depression.

This hybrid quality would be less confusing if units in Crest Status and non-Crest Status were segregated into different Locations-as with multiple levels in the same building. But that is not the case, which is why we have the odd paradox by which units in a Gully hex that have Crest Status technically
occupy the same Location as units IN that same Gully-even though, for purposes of LOS, they effectively are separated by a full level.

Thus, when a Gully hex contains units that are both Crest Status and non-Crest Status (i.e., in and IN the Gully), two separate LOS determinations may be required: one that includes the LOS rules for Depressions, and another that includes only the ordinary LOS rules in regard to an entrenched unit.

To save time, it is always best to first check LOS against the Unit IN a Gully, because B20.92 specifies that all fire successfully traced against units IN a Gully will also affect units that have Crest status (and with the same die-roll, albeit with different possible modifiers). But the opposite is not true: It often will be the case that incoming fire will affect Crest Status units without affecting their bottom-dwelling non-Crest companions.

As one final addendum, I would advise players using mortars to reacquaint themselves with the important exception to the LOS rules indicated in C3.33. This is the odd provision that allows such weapons to rain fire on units that they can't see-providing they successfully achieve a hit against another unit that they can see in that same hex. In considering methods to exploit this exception, examine the example specified under C3.331, by which a mortar at ground level manages to affect enemy units IN a woods-gully hex by successfully hitting a unit in Crest status in that same hex.

See Comprehensive Inter-Level LOS Example. As noted previously, the 2-3-7 in AA9, at level 1, cannot see INTO X8, W8 or V7. But it could see units in Crest status in those hexes. Moreover, if the 2-3-7 achieved a hit against these Crest-status units with a mortar, it could affect units IN those Gully hexes as well.

## Conclusion

ASL has a reputation as highly complicated game. Yet in its bare elements - moving little pieces of cardboard around a map, and tracing fire attacks from one unit to another-it's fairly simple. It is only when the rules add in necessary abstractions-such as a third dimension extending out
of the board-that it becomes more difficult to grasp, and therefore more intimidating to newcomers.

To ensure that ASL remains a popular pursuit with a regenerated corps of fresh players, we must find ways to communicate these abstract principles to the uninitiated. I hope that this article goes some way toward accomplishing that goal.

## Editor's Notes

Well, HazMo (established 5/15/21) is not yet two years old, but a lot has happened since its recent inception, most of it very good. We've already produced three packs, scenarios from which have been featured at virtually all of the premier tournaments, both here and abroad. We've listened to your constructive criticism (for which we are very grateful, as we are always seeking to improve), and made positive changes to the product over time. Chad and I have had the honor to be interviewed by several ASL podcasters, including Illuminating Rounds, George Hiotis and 2 Half Squads. Meanwhile, Chad and I have had a number of projects on the back burner, the most recent of which I'll briefly describe below.

Hazardous Movement Scenario Pack 4 will be comprised of 10 scenarios, all of which will be relatively small, meticulously playtested for balance and fun and portray actions from around the globe: from the frigid, frozen forests of Finland to the dense, humid jungles of the Philippines to the thick, deadly hedgerows that crisscross the countryside of France. Pack 4 will also contain 2 maps - HZ-1 and HZ-2 - that will be used in multiple scenarios. Yes, Chad and I are ASL consumers too, and like most players, we hate useless and/or redundant maps. Rest assured that these mapboards will be anything but! Better yet, these boards are hand-drawn by the great Don Petros, so you'll definitely want to make them part of your collection!

Some of you may recall that we had initially intended to release a Normandy pack this year, but for a number of reasons, we decided to postpone that project in favor of this one. Oh, well . . . we all know plans can change according to circumstances. Put simply, we think this pack will provide greater variety and appeal to an even larger group of players. To give you an idea of what's in store, we're including HazMo31 ("The Cloak of Disorder") in this year's Horizon. We ask you to play it and record your results on the ROAR (where it's already up-and-ready) and the ASL Scenario Archive. That would be a great help!

Finally, I wanted to extend our sincere gratitude to those of you who have taken the time to submit contributions to the Hazmo Horizon. This project would be impossible without you. If you haven't done so already, please do consider writing an article for the newsletter next year: it's a way of making your opinions and advice on the hobby heard. Your participation allows us to continue to provide free, quality content for the entire ASL community while informing our readers of what Hazmo products are (for lack of a better phrase) on the horizon! It's a win-win.

Have a great year,
Chuck Hammond


