immediately if a unit no longer fulfills 9.32 and may be forfeited at any other time. Claiming/forfeiting WA is *not* considered an action for RPh limits (A3.1) or concealment loss (A12.141). Claiming/forfeiting WA can never be done between an enemy action being declared and that action being completed, e.g., fire vs the unit claiming WA.

9.323 MANDATORY WA: A unit unable to claim in-hex TEM of at least +1 must claim WA as soon as possible regardless of timing (even if having in-hex Hindrance), and cannot voluntarily forfeit it. Neither Emplacement, Gunshield, Height Advantage, nor a friendly AFV with WA are considered to provide an in-hex TEM for this purpose. A "Wall Advan" counter is not *necessary* in this case, unless there is an enemy unit sharing one or more of the unit's wall/hedge hexsides.

9.324 CONCEALMENT: A concealed unit (or dummy stack) may claim WA, but a dummy stack cannot prevent a non-dummy enemy unit from claiming WA over shared wall/hedge hexsides; the side trying to gain WA must first prove that it has at least one non-dummy unit by momentarily revealing one if all are concealed, and the opposing side must then momentarily reveal one non-dummy unit or forfeit WA. A hidden unit can never claim WA and must be placed (concealed) onboard to be able to claim WA during play, but may do so at any time—even at the moment an enemy unit moves adjacent and attempts to claim WA.

9.33 ELEVATION EFFECTS: If a non-Aerial firer is at an elevation above the wall/hedge, the hexside TEM may be reduced. Determine 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). If 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. 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. The TEM of shellholes, bridges, and entrenchments can be reduced in a similar manner by a firer's elevation advantage.
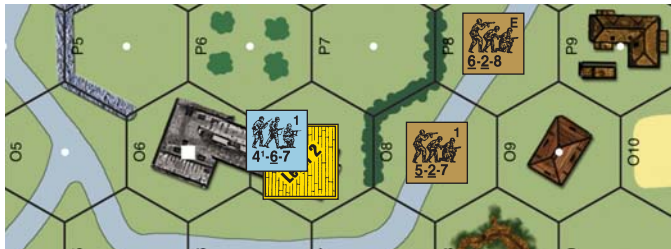

EX: The 4-6-7 on level 2 of 12O7 can ignore the hedge when firing into O8 because its level 2 height is > the one-hex distance to the target. However, if the 4-6-7 fires on P8, it must still add a +1 hedge TEM because its level 2 height is not > the distance (two hexes). A unit on the first level of O7 firing into O8 would still have to add a +1 hedge TEM because its elevation advantage (1) is not > the range (1). The TEM of a unit entrenched in P7 would be reduced to +1 for attacks by the 4-6-7 at level 2.

9.34 INDIRECT FIRE: The TEM of a wall/hedge hexside is lowered by one for Indirect Fire, but this TEM applies (irrespective of WA) even if that hexside is not crossed by the incoming fire. Only one wall/hedge TEM can be applied to the resolution of such fire, regardless of the number of such features present in the target hex. A hedge TEM reduced thusly to zero would still negate FFMO/Interdiction for a mortar whose LOF enters the hex via the hedge hexside. A target is never HD (D4.2) to Indirect Fire. If in a woods hex, Air Bursts (13.3) applies—even if the unit has WA (but is combined with wall TEM if applicable).

9.35 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). A wall/hedge provides no TEM or HD status to a target Location that is at a different elevation than the base elevation of the wall/hedge.

EX: Fire against a 4-4-7 in 41R4 (Level 1) would not be affected by the Q5-R4 hexside (Half-Level obstacle on level 0), nor by the P4-R4 hedge hexspine, but a unit in P4 could claim hedge TEM if attacked from R4 due to the P4-R4 hexspine.

EX: The 4-6-7 with WA in 41Q5 cannot deny the 5-2-7 in P4 WA (over O4-P4) since the two units do not share any wall/hedge hexsides, nor could it deny an enemy unit in R4 WA if R4-R5 were a wall hexside. The 4-6-7 does deny WA to the 4-4-7 in Q6 since they share the Q5-Q6 hedge hexside (9.321). The 4-6-8 in R5 may not claim WA because it is at a higher elevation than the hedge hexside (9.35). Claiming WA, the 4-6-7 receives hedge TEM vs fire from the 4-4-7, and no TEM vs fire from the 5-2-7 since a unit claiming WA never receives in-hex TEM.
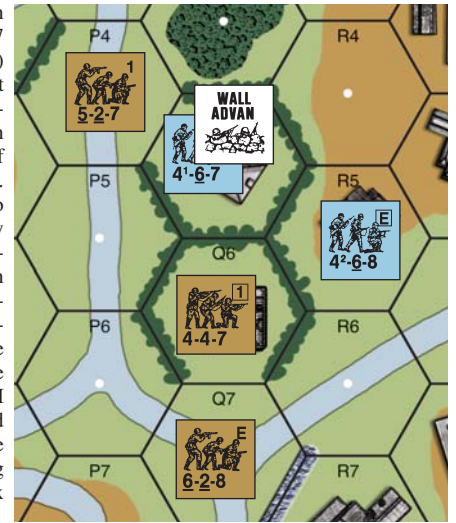
It is the Russian PFPh, and the 5-2-7 declares an attack (with no TEM). The 4-6-7 would not be able to forfeit WA and claim building TEM until after the attack has been resolved. After having thusly forfeited WA, the 4-6-7 may choose between the building and hedge TEM if fired on from P6 or R6, but must use the building TEM if fired on from the 4-4-7 (assuming the 4-4-7 now has WA) even though Q5-Q6 is a hedge hexside, since a unit without WA may only use wall/hedge TEM vs units which do not have WA over that hexside (9.31). Furthermore, the 4-4-7 may immediately claim WA since all enemy units sharing wall/hedge hexsides have forfeited WA (9.322). If the 4-4-7 claims WA and later becomes broken or moves, the 4-6-7 may similarly claim WA even if it has previously forfeited it that Player Turn.

Assume the 4-6-7 retained WA and survived Prep Fire. When the 4-4-7 moves to P5, the 4-6-7 denies it WA and First Fires on it using FFMO and no TEM because the hedge TEM is NA vs a firer with WA over that hexside. If the 4-6-7 fires as a FG with the 4-6-8 in R5, the hedge TEM applies (A.5).

During the next German MPh, the 4-6-8 moves from R5 to Q6 and although it could claim WA as part of the MF expenditure for entering the Location (the 4-4-7 in P5 is still denied WA by the 4-6-7 in Q5, and therefore cannot prevent the 4-6-8 from claiming WA), it chooses not to do so. If the 4-4-7 (or the 6-2-8 in Q7) First Fires now, the attack will be subject to building TEM. After this the 4-6-8 may still claim WA (since it has not yet completed its MPh) even if not spending additional MF, but if doing so the 4-4-7 may (Subsequent) First Fire subject to the hedge TEM and the 6-2-8 may (Subsequent) First Fire with FFMO (assuming the DEFENDERs haven't exhausted their First Fire capability based on the three MF expended when entering the Location). The 4-6-8 may wait until the APh to claim WA, but if the 4-6-7 in Q5 becomes broken (or leaves) before this, the 4-4-7 in P5 must claim WA (9.323) and will thereafter prevent the 4-6-8 from claiming it.
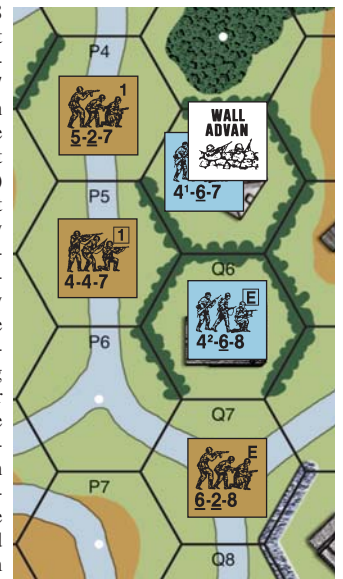

● **9.36 HULLDOWN:** Any vehicular target fired on by Direct Fire ordnance subject to wall TEM is considered HD (D4.2) instead of receiving the wall TEM. However, if also able to claim in-hex TEM (9.31), the player may choose in-hex TEM instead of HD benefits (D4.2)—after the attack declaration, but *before* the attack DR is made. If attacked by non-ordnance, the vehicle (but not its PRC) receives the wall TEM (or in-hex TEM). Hedges do not create HD status.

9.36

EX: The PzIII in 43O10 in Bypass along O10-O9 and the PzIV each have WA and are HD to ordnance attacks from all 3 Russian AFV. The KV-1S receives no protection from attacks by the panzers, but the PzIV cannot use its BMG against targets in O9 (D4.223). Both the T-34 and IS-2 receive building TEM from attacks by the PzIII and both can qualify for *either* building TEM *or* HD status for attacks from the PzIV (although neither can use its BMG against targets in P9—or vice versa). If the PzIII were in Bypass along O10-N10 instead, it would have WA vs the T-34 but not vs the KV-1S (9.32). The PzIII would still be HD vs all 3 Russian AFV, but now the KV-1S would also be HD vs the PzIII (9.31).
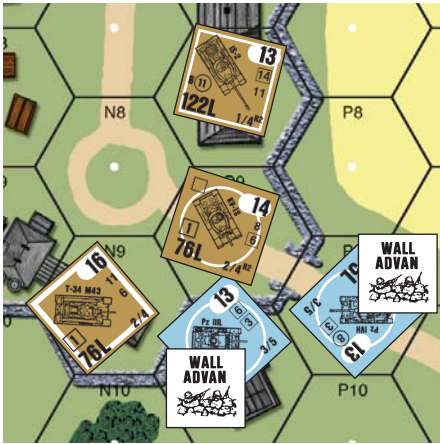
In its MPh the PzIII starts and enters P9. The T-34 cannot claim WA because it is eligible for in-hex TEM (9.32). Despite the fact that the PzIII has WA (thanks to the PzIV), it is not HD to the KV-1S through the gap in the wall because it is moving (even if it Stops; C.8). The PzIII changes its VCA to P8-Q9 and enters P8. It has WA (and thus is HD to all 3 Russian AFV) because the KV-1S cannot claim WA (thanks again to the PzIV) and because the IS-2 (occupying in-hex TEM ≥ 1) also cannot claim WA. If the IS-2 had been in Bypass along either the O8-O9 or O8-P8 hexsides, it would have retained WA, thus denying it to the PzIII. The IS-2 would be HD vs the PzIII, while the KV-1S and PzIII, each lacking WA, would be HD to each other (and thus unable to use their BMG against targets in each other's hex).
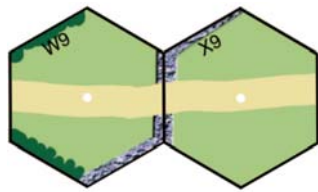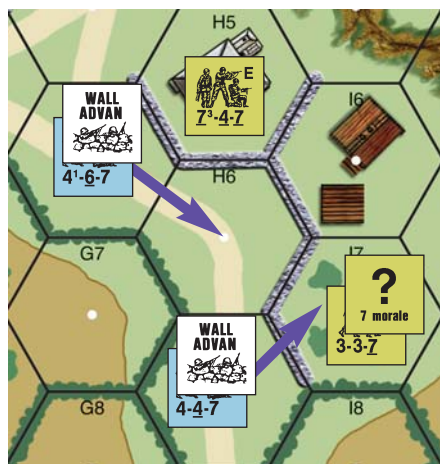
9.4 MOVEMENT: The cost for Infantry/Cavalry to cross a wall/hedge hexside is one MF plus the COT of the hex moved into. The cost for various types of vehicles to cross a wall/hedge is indicated on the Chapter B Terrain Chart. A vehicle failing a Bog Check for crossing a wall/hedge is Bogged in the hex it attempted to leave. Wall/hedge hexsides are never expressed as a COT, but rather as an addition to COT. Therefore, when a unit must pay double its normal MF cost to cross a Crest Line it pays double the COT of the hex plus the one MF for its hexside. Some wall/hedge hexsides such as 6W9-X9 have obvious gaps in them which can be crossed without paying the wall/hedge MF/MP penalty (by using the road if one exists).

EX: See the 9.41 illustration. It costs three MF to move from 55H7 to I8 (1 + [2×1] = 3).

● **9.41** WA is always lost when a unit starts entering a new Location. A unit may not re-claim WA during its MPh if exit of its current Location fails (e.g., A12.15, B28.41, E1.53) unless mandatory WA (9.323) applies.

EX: It is the German MPh, and both German squads have WA. The 4-6-7 moves to 55H6, and immediately loses WA, allowing the 7-4-7 to claim it. If the 7-4-7 claims WA, it will be able to fire at the 4-6-7 using FFMO (or no TEM if declaring a Snap Shot vs the G6-H6 hexside). If the 7-4-7 does not claim WA, the 4-6-7 automatically gains it when entering H6 (9.323), and therefore receives the wall TEM vs all attacks, even a Snap Shot (depending on LOS; A8.15, 9.42). The 4-4-7 in H7 now at-

tempts to enter I7, revealing the 3-3-7 and forcing the 4-4-7 back to H7 (A12.15). Even though the 4-4-7 has not left its Location, the WA is momentarily lost, allowing the 3-3-7 to claim it and fire on the 4-4-7 with FFMO, but only if the 4-6-7 did not gain WA in H6.

● **9.42 VERTEX LOS:** During bypass movement (including VBM), and when targeted by a Snap Shot, LOS is drawn to a vertex (two in the case of a Snap Shot against the entire hexside). If such a vertex is part of a wall/hedge hexside, that wall/hedge affects the LOS and provides TEM (or HD status), if:

• the LOS is drawn exactly along that hexside (regardless of which of the three hexes forming the vertex, the target unit occupies), or

• the target unit is in one of the two hexes formed by that hexside (C.5), and the LOS enters the vertex via the opposite hex (including its hexsides).

Targets of Underbelly Hits never receive wall/hedge TEM from any of the three hexsides forming the target vertex (D4.3).
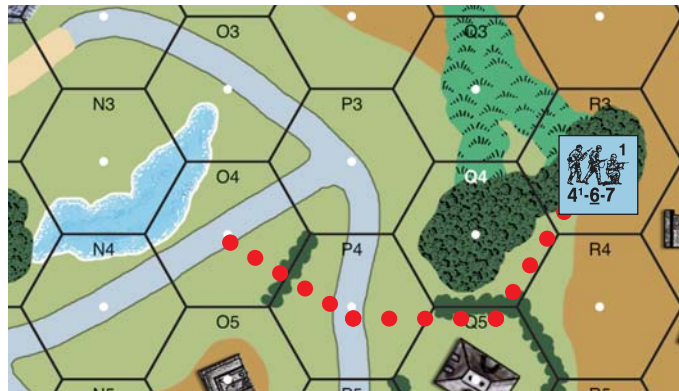
EX: The 4-6-7 declares Double Time and bypasses 41Q4 along Q4-R4. For LOS to the Q4-Q5-R4 vertex to be affected by the Q4-Q5 hedge, the LOS must be drawn along the hexside (e.g. from P4), or enter the vertex via the hex on the opposite side of the hedge (e.g. from O5 or from a unit *without* WA in Q5). The hedge does not affect fire from O4 where the LOS enters the vertex via Q4, or from R4.

The 4-6-7 now expends 2 MF crossing the hedge and bypassing Q5 along the Q5-Q4 hexside. LOS can now be drawn to either the same vertex as before, or to Q5-P4-Q4 (A4.34). If drawn to the former, LOS from P4 is still affected by the hedge, but the target is now in Q5, so hedge TEM is applied from O4, but not from O5 or Q5. For LOS to the Q5-P4-Q4 vertex, the hedge TEM applies from R4 and P3, but not from O3, O4 or O5 since their LOS do not go through Q4.

The 4-6-7 then enters P4 and O4. If a Snap Shot is declared along the O4-P4 hedge hexside, LOS must be drawn to both vertices (as part of the hexside). Hedge TEM applies if LOS is drawn from O5 or P3 (along the hedge hexside), P5, Q3, Q4, Q5 (from the opposite side of the hedge as the unit which is now in O4; A8.15)—but *not* from N3, N4, O3 or P2. If instead the 4-6-7 entered P3, a Snap Shot would receive the hedge TEM *only* from O5.
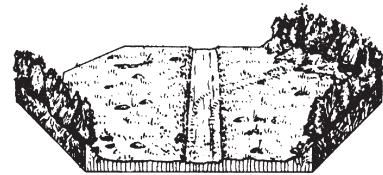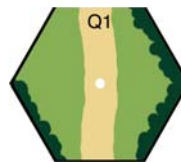
9.5 BOCAGE: Bocage (or hedgerow) is a special form of hedge grown on top of low earthen mounds to form a natural wall. All rules pertaining to walls *[EXC: HEAT NA (C8.31)]* are applicable to bocage except as modified below.

9.51 Bocage is depicted by wall/hedge hexsides as specified by SSR.

9.52 LOS: Bocage is a one-level LOS obstacle with a difference. Although a defender behind (but in the Location formed by) a bocage hexside may be in the LOS of a higher level firer, the next hex along that LOS through that bocage hexside is a Blind Hex (A6.4). Treating that bocage hexside as instead being a "Single-Story House" in that

defender's hex is a good way to visualize how it creates Blind Hexes vs that higher-level viewer *[EXC: The number of blind hexes can be reduced to zero; 9.531].*

LOS cannot be traced along a bocage *hexspine* as can be done with a wall (9.2). A bocage *hexspine* is treated as a normal one-level obstacle in all respects.

● **9.521 HEXSIDE LOS:** LOS may be traced through a bocage *hexside* to the hex formed by that hexside, but what can be seen depends on the viewer's status:

• *A viewer having WA over that bocage hexside:* can see freely through the bocage hexside and any hex beyond it.

• *A viewer in a hex formed by the bocage hexside, but without WA:* can see through the bocage hexside to the adjacent hex, but not beyond that hex. It can see anything in that hex.

• *A viewer not in a hex formed by the bocage hexside:* can see through the bocage hexside, to the hex forming that hexside, but not beyond that hex. It cannot see units without WA nor their possessed equipment, but it can see everything else in that hex.

EX: All hedges are bocage. A unit in 44BB8 can see into (but not through) Z6 to Z8 (thus revealing HIP counters per A12.33), but cannot see units *without* WA in those hexes, nor see Z5.

If BB8 had a rooftop, a unit there at level 1½ could also see hexrow X and beyond, but not Y6 to Y9 due to the Blind Hex (9.52; i.e., its LOS would be blocked by the "Single-Story Houses" in Z6 to Z8). It could not see Z5 because the Z6-AA6 hexspine is treated as a one-level obstacle for LOS purposes (9.52) creating one blind hex. It could however see the Y5-Z4 hexside and take a Snap Shot vs a unit crossing it.

If it were on level 3, it could see Y6 to Y9 (9.531), but still neither Z5 nor any units without WA in Z6 to Z8. A unit in AA8 can see Z7 and Z8, and with Wall Advantage beyond to Y6 to Y9, but cannot see Z6 or Z9 because LOS cannot be traced along a bocage hexspine (thus also prohibiting Snap Shots from AA8 to hexside Z9-AA9).
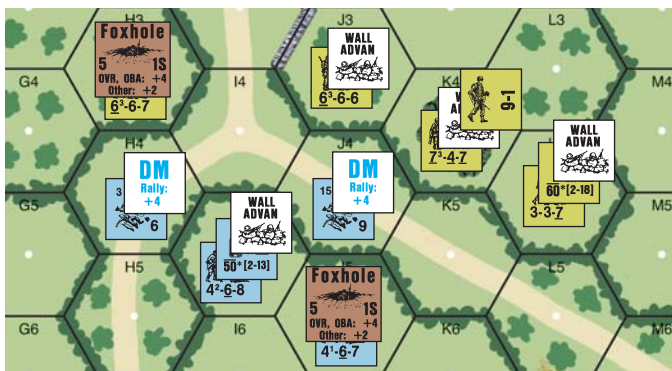
EX: All hedges are bocage.
• The 4-6-8 in 54I5 can see all American-occupied Locations (including the

Foxhole), but not the 9-1 nor the entrenched 6-6-7—nor hexes K3, L3, etc. The 6-6-7 and 9-1 are therefore immune to Direct Fire attacks. If attacking with the MTR, the 6-6-7 in H3 cannot be hit, but the 9-1 in K4 is hit if the 7-4-7 is hit (C3.33).

• The 4-6-7 in J5 cannot see any enemy Location.

• The broken 2-3-7 in H4 can see the adjacent 6-6-7 and units with WA in J3 and K4.

• The broken 6-5-8 in J4 can see all units in J3 and K4.

• The entrenched 6-6-7 in H3 can only see the adjacent broken 2-3-7.

• The 6-6-6 and the 7-4-7 can see all enemy Locations, but not the entrenched 4-6-7.

• The 9-1 can only see the adjacent broken 6-5-8, so he cannot direct any attack made by the 7-4-7 vs other German units, but is still able to direct MC/TC taken by the 7-4-7 even if attacked by units not in the leader's LOS (e.g., the 4-6-8).

• The 3-3-7 can see the 4-6-8, but no other German unit, though it can see the 4-6-7's Location, including the Foxhole. If the 3-3-7 attacks J5 with the MTR, the 4-6-7 cannot be hit since there are no non-hidden enemy units in LOS (C3.33). However, if it declares a WP MTR attack (with +2 Case K; C6.2) and hits the hex, the 4-6-7 must take the WP NMC, because all units in a Location with a WP counter must take a NMC when the WP is placed in that Location (A24.31).

9.53 A non-vehicular Direct-Fire Gun may not both change CA and fire through a bocage hexside in the same fire phase (counting Defensive First Fire and Final Fire as one phase—A.15).

9.531 Elevation advantages (9.33) have no effect on the TEM of bocage but can reduce the number of Blind hexes caused by bocage *hexsides* to zero, as per A6.42. The number of blind hexes created by a bocage *hexspine* cannot be reduced below one.

9.54 MOVEMENT: To cross a bocage hexside costs Infantry two MF plus COT. No other unit may cross a bocage hexside except a fully-tracked AFV. An AFV crossing a bocage hexside cannot use Reverse-movement/carry-Riders, and is subject to Underbelly Hits, loss of Schuerzen (D11.2), and Bog (in the hex being exited), as it crosses the bocage hexside *[EXC to all: if crossing via an obvious gap (9.4) or existing Breach (9.541)].*

9.541 BREACH: A Dozer tank, bulldozer, or AFV designated by SSR as being equipped with the Culin hedgerow device or similar equipment (after 7/25/44) may breach a hedgerow it traverses by expending its entire MP allotment *[EXC: Start MP]* to cross that hexside and passing a Bog DR. Failure to pass the Bog DR leaves the vehicle Bogged in the hex it started in and leaves the bocage unaffected. Such a vehicle engaged in breaching a hedgerow may not use Reverse-movement/carry-Riders, but is not subject to Underbelly Hits. Mark the affected hexside with a Breach counter so that the arrow points to that hexside. Thereafter, movement/Manhandling (C10.3) across that hexside is treated as if the bocage did not exist, but the Breach has no other effect on bocage rules.

● **9.55 CONCEALMENT:** An Infantry/dummy unit capable of claiming bocage TEM vs all enemy (Good-Order/unbroken, as per A12.1) ground units with a LOS to it, is treated as being out of all enemy LOS and in Concealment Terrain for all setup and "?" gain purposes. Such a unit is treated as out of all enemy LOS for "?" loss purposes during the RPh and loses "?" during its MPh as if using Assault Movement. If a Good Order enemy unit has LOS through non-bocage at the end of both sides' setup prior to the start of play, any HIP/"?" allowed solely due to being in a Location containing a bocage hexside is lost. During play, if a Good Order enemy unit has a LOS *not* affected by bocage TEM to a unit that has set up using HIP solely due to being behind bocage, the HIP unit is immediately placed on board Concealed.
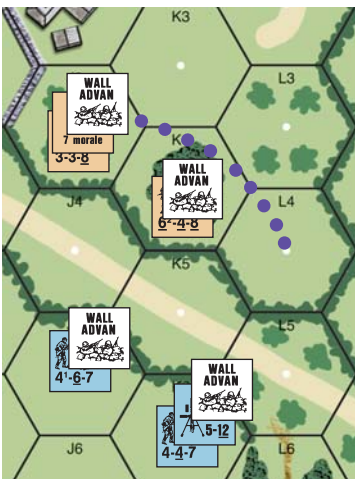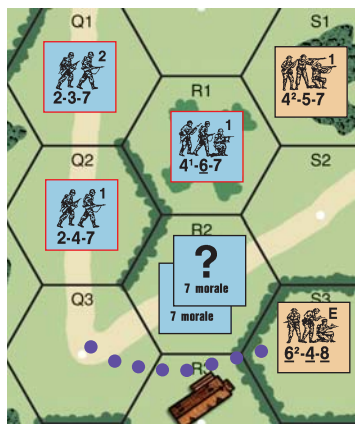
EX: All hedges are bocage. By SSR the German player (who sets up first) is allowed to set up ≤ 2 squad equivalents using HIP. He hides a squad in 55R1 and hides two HS in Q1 and Q2 (shown with red borders) despite being non-Concealment terrain, because they have ≥ 1 bocage hexsides. He also uses two OB-designated "?" for a dummy stack in R2, which is allowed for the same reason.

The British player sets up a 4-5-7 in S1, with LOS to Q1 and R2 through *non*-bocage hexsides, so the 2-3-7 is placed onboard unconcealed and the dummy stack is eliminated when the British setup has been completed. The squad in R1 remains hidden due to being in an orchard hex.

During the British MPh, the 6-4-8 moves to Q3, thereby forcing the hidden 2-4-7 to be placed onboard beneath "?".

EX: All hedges are bocage. It is the British PFPh and the 6-4-8 in 54K4 prep fires against the 4-6-7 and breaks it. A lone broken unit cannot claim WA (9.32), even in a hex where mandatory WA (9.323) otherwise applies; the 4-6-7 therefore loses WA and disappears out of LOS from both British units, making it immune to further attacks.

During the British MPh, the concealed 3-3-8 uses Non-Assault Movement and enters K4 without claiming WA (due to the woods TEM), and is therefore out of the 4-4-7's LOS. It continues to L4 where it *must* claim WA (9.323), thereby moving within the 4-4-7's LOS, but still retaining Concealment since the movement is treated as As-

sault Movement for "?"-loss purposes (9.55). Similarly, the 3-3-8 would *not* lose Concealment by entering/exiting a foxhole or changing Crest status, but *would* lose Concealment by performing any other Concealment loss actions (A12.141) besides movement in L4 (e.g., placing a DC). The 4-4-7 and MMG attack with 4 FP (9 FP halved for Concealment) and +2 DRM (+2 [bocage TEM] +1 [orchard Hindrance] -1 [FFNAM]), to no effect but retains ROF. No Residual FP would be placed even if ROF had been lost, since the Residual FP is reduced three columns due to orchard and bocage.

(If there were a German 2-4-7 in L5 with WA, the 3-3-8 could not claim WA when entering L4. WA is claimed per *hex*, not per *hexside [EXC: Deluxe ASL]* and the German 2-4-7 having WA over the L4-L5 hexside is enough to prevent the 3-3-8 from claiming any WA at all in L4. In this case the LOS from the 2-4-7 would not receive bocage TEM, so the 3-3-8 would lose "?" and be subject to FFMO from the 2-4-7, but would be out of LOS from the 4-4-7 in K6, and therefore immune to attacks from it.)

At the start of the German DFPh, the 6-4-8 drops WA (which he could have done anytime after firing [9.322]), thereby disappearing from the 4-4-7's LOS. So the 4-4-7 instead fires its MMG at the concealed 3-3-8 which cannot drop WA. A PTC is rolled, forcing loss of the 3-3-8's "?".

At the start of the British APh, the situation is as shown to the right. During its APh the 6-4-8 claims WA again (which was the earliest it could do so [9.322]). At the end of the British CCPh, both British MMC gain "?" since all enemy LOS is traced through bocage hexsides (9.55).
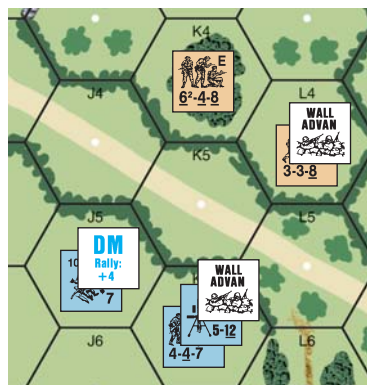
At the start of the next German Player Turn, the 4-6-7 rallies and immediately gains WA (9.323). The British 6-4-8 then forfeits WA again to avoid German Prep Fire. During the German MPh, the 4-6-7 Assault Moves to K5 where it is prevented from claiming WA by the 3-3-8 in L4. The 6-4-8 cannot re-claim WA at this point, so its attack against the 4-6-7 receives the +2 bocage TEM, while fire from the 3-3-8 receives FFMO. If the 6-4-8 and 3-3-8 formed a FG, the attack would receive +2 bocage TEM and no FFMO.
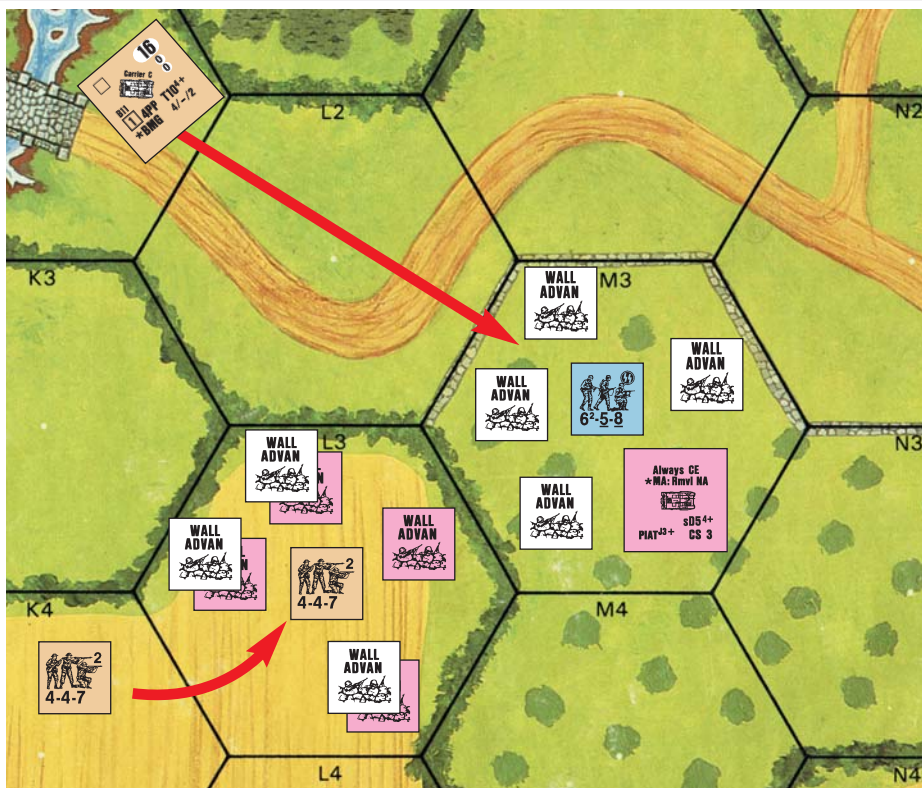
EX: All hedges are bocage, and Deluxe ASL rules are in effect. For purposes of this example, white WA markers represent the situation after the British Infantry moves, and light pink markers (as well as the Carrier wreck) represent the situation at the end of the MPh. A German 6-5-8 squad in gM3 has WA over all 4 wall and hedge hexsides.

A British 4-4-7 squad enters L3 and claims WA over L3-M4, L3-L2, and L3-K3, while the German squad retains WA over L3-M3. The British squad has no LOS to any non-adjacent hexes where the LOS crosses the L3-M3 hexside *inclusive* of vertices; e.g. M2, N2, and N3 (9.521).

A British Carrier moves into L2 and then into M3 forcing the German squad to lose all WA as soon as its Location becomes occupied by an armed enemy unit (9.32). The British 4-4-7 automatically gains WA over L3-M3 as soon as all enemy units have lost WA (9.323).

The German squad eliminates the vehicle and its crew with CC Reaction Fire, and immediately regains WA over M3-L2, M3-M2 and M3-N2 (9.323). If in-hex TEM were available, it could not regain WA over those hexsides until the following RPh (9.322). In either case, if it manages to break the British 4-4-7 in Final Fire, the broken British 4-4-7 loses WA per 9.32 and the German squad automatically gains WA over L3-M3 (or could voluntarily claim it if in-hex TEM were available).