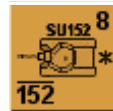
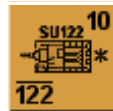
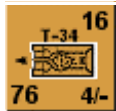


## HILL 621: The Duel: Tanks Versus Tanks (supporting assets, too)

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### The Challenge:

In this scenario, four Panzerkampfwagen mark IVF2s arrive German turn 2 and get one turn for targets of opportunity versus Russian infantry by both combat and interdiction of the RT2 movement. At the same time, they must position themselves for a battle with a superior number of six Russian T-34s. By the numbers, the Russians have the upper hand. However, several German advantages can offset the imbalance in numbers. A decisive German victory in this armor confrontation will serve to doom a favorable Russian outcome assuming the German survivors are effectively employed. A decisive Russian victory will ease the deployment of the turn 5 reinforcements and allow the remaining T34s to reduce the options of the German hilltop defenders. The outcome of many battles will be a surviving tank or two. Depending upon how the survivors are deployed, this situation often does not have a significant impact on the outcome by itself. OR it can be decisive to achieving victory.

### The Contestants:

The player challenge is how to maximize your chances for a positive outcome of this battle. First, let's look at the contestants, the MkIVF2 and the T34 in SQUAD LEADER terms. Both main guns have the same TO KILL (TK) numbers and both vehicles

possess +0 DIE ROLL armor. Within ranges of six hexes or less, the TO HIT (TH) numbers are equal in all cases, with exception of the German advantage versus a hull down target. Finally, the covered arc machine gun is identical at 4 attack factors. The German main battle tank in SQUAD LEADER has several advantages. Of minor importance in the tank battle is the 360 machine gun. This will only come into play versus Russian infantry or versus surviving Russian tank crews. Of greater importance is the higher TH numbers the German enjoys as the range increases. This is only an advantage if the tank duel is beyond six hexes and increases in the German favor at ranges 13 hexes and beyond. German AFVs can utilize their Smoke Candles (41.4) once per game by forfeiting their main armament fire for the turn while retaining full movement capabilities. The sole individual superiority of the T34 is its greater movement rate. This can be used to outpace the Germans or reach favorable positions in which to initiate the tank duel, or close the range to six hexes or less, where they become equal to the Germans in regards to TH/TK. The better movement rate also makes climbing hills much easier.

### Tactical Considerations:

In a simple tank duel situation versus non hull-down targets, within a range of one-six hexes versus front armor, neither side will enjoy an advantage. In this situation, the tank duel is simply a 'dice war'. However such a perfect situation will not occur. To initiate a battle, one side must advance into the Line of Sight (LOS) of the enemy. The side advancing (Attacker) has reduced chances of a hit in the Advancing Fire Phase (AFPh) due to CASE F (+5). This can be reduced when ending adjacent to the enemy to a CASE F & CASE J (net +3)). However, assuming the defending tank has not yet fired, it will

enjoy a near certain hit on its Defensive Fire Phase (DFPh) shot versus an adjacent target (CASE A & CASE J (net zero)). Although the Defender is firing versus moving targets yields a +2 DRM (Case A: +2) and if flanked will suffer a +2 firing outside of a covered Arc DRM (Case D). The defender will typically possess both a superior TH probability in the Defensive Fire Phase (DFPh) and followed by a Prep Fire Phase (PFPh) versus a non-moving target before the moving AFV takes its first decent shot. This should result in attrition of the attacking force. To their favor, attacking force survivors will enjoy the next two shots (DFPh and PFPh) prior to receiving additional fire. This is only a benefit if there are AFVs surviving the initial rounds of the defender's fire to shoot back.

**TYPICAL VEHICLE FIREFIGHT SEQUENCE**

#	Deploying a Tank	Deploying an Assault Gun
1	Move into position during MPh	Move into position during MPh
2	Defender DFPh; TH +2 DRM	Defender DFPh; TH +2 DRM
3	AFPh; TH +5 DRM	AFPh; Not Allowed
4	PFPh; Normal TH	PFPh; Normal TH
5	DFPh; Normal TH	DFPh; Normal TH
6	PFPh; Normal TH	PFPh; Normal TH

**Improving Your Odds:**

Several key principles may be employed by a player to will swing the outcome to their benefit.

- First is the principle of numbers. When able, oppose an isolated enemy tank by three or more friendly AFVs for a tank duel. Even if the dice prevail for the defender, he can eliminate only two AFVs via kills prior to being on the receiving end over next two fire phases.
- Second is to take advantage or favorable terrain. In SQL, this is the occupation of building or

woods hexes; both impart a lower TO HIT number on the enemy shooter. If the defender sets up in these hexes, the AFV is immune from the immobilization die rolls. If such terrain is occupied during a Movement Phase (MPh), an immobilization die roll is required. This is a 16.7% occurrence for Russians and Americans but a 33.3% chance for Germans. An immobilization requires a NMC for the AFV crew. If the crew failed this check (43% for Germans/Russians, 57% for Americans), the vehicle is considered destroyed. Hence the merits of occupying such terrain should be weighed against the potential loss of the vehicle attempting this maneuver.

- The most significant terrain advantage is to achieve hull down status (41.1). Moving behind a stone wall while facing your enemy will drastically reduce your opponent's TH numbers while not affecting your own. The exception is if the adversary is on opposite side of the wall, in these cases both are hull-down. A close look at the HULL DOWN column on the SQUAD LEADER Chart reveals that the Germans possess a much better TH probability than the Russians. Although the difference is still only a difference of '1', given the low numbers involved the difference in probability is substantial. For example, the probability of a 4 or less (16.7%) versus a 5 or less (27.8%).
- The second method to achieve hull down status is when the enemy's LOS is traced through an adjacent wreck to your tanks position (40.6). This is a bit tricky to judge by eye. Of significant note, is that a change was made between SQL 2nd and SQL 3rd editions where 'live' AFVs no longer provide such hull down protection.

**Creating A Favorable Tank Battle:**

The above discussion assumes all contestants are limited to front shots. With the exception of the subtleties mentioned above, tank warfare fought in this manner is essentially a 'Dice War'. To achieve a higher probability of success, one must create a situation favorable to your side. Setting up an ambush is more desirable than a fair fight. Several tactics can be employed to achieve this but all are designed to fire at the side and rear facings of the enemy AFV. Flank and rear target facing shots are how AFVs are killed with much less effort and without the need of great dice rolls.

- If you can draw the fire of the enemy early in your move and survive, your AFV can continue to move to end in LOS of the enemy's flank. The defender will have two options, holding fire until you have concluded your move, at which point he can turn towards your ending position during DF and be sure to show his front facing to you for your AF shot. Alternatively, if he has a good shot during your movement (perhaps you show him a side target), if the defender survives your AF shot, he can simply pivot and present his frontal facing in his subsequent PFPh. If the solitary attacker is daring, he can move adjacent to the flank or rear of a defender that has already fired, banking on the net 7 TH number and higher kill number of the side and rear facing during his AFPh. However the two enemy fire phases following an AFPh miss will likely result in the attackers destruction.
- If the defending AFV position allows, two or more tanks can position themselves to target the defender so he is presenting weaker facing to at least one of the assailants.

#### **Applying These Lessons to Scenario 5 'Hill 621':**

Scenario five remains one of my top three SQUAD LEADER scenarios published by The Avalon Hill

Game Company (TAHGC). It is one of the few providing tactical maneuver, combined arms, constant metering of additional reinforcements, and many player choices. However the outcome of the tank battle in the early turns has the potential to dictate the outcome of the scenario. As of March 2005, the scenario record reflects a pro-Russian slant with a record of 34 Russian wins to 17 for the Germans. A caveat though, scenario records can be misleading as they can not reflect player ability, tactics employed, or die rolls that can overcome any perceived scenario balance. Hence the reason why you can find players who claim that a scenario is biased in both directions. Of course, the relative quality of your opponent can often offset any dice advantage.

- Due to lessor numbers, the German tanks should seek out hull down positions, and force the T-34s to advance against mutually supporting positions. Ideally this is done to force battle beyond six hexes.
- The initial German decision is which board edge to arrive on and to what degree does one terrorize the enemy infantry. Most likely, due to movement point considerations, the MkIVs who chose to overrun the Russian masses will be in striking range of Russian infantry as the tank battle develops.
- What both contestants seek is to envelop the enemy tanks so a frontal covered arc is the only facing offered the enemy AFVs while your own tanks get as many flank/rear shots as possible. Given the superior movement rating of the T-34, availability of road networks and multiple points of entry, the Germans must place their tanks with care.
- While focused on winning the tank duel, the Russians must also consider using the T-34s to suppress German infantry, interdict German

infantry movement, support the Russian infantry assault, and if possible, target the German 75mm ATG while it is unloaded or pushed. The latter is the most powerful unit on the map, not counting a heavy caliber OBA barrage. The ATG can serve as both a multiple shot tank buster and artillery piece.

- Although the tanks arriving on turn 2 are the primary combatants in the tank duel, Scenario five provides each player with combined arms. Properly employed, each side possesses other assets that can influence the outcome of the tank battle.

### **Applying Combined Arms to the Tank Duel:**

#### **INFANTRY**

- In SQL, a tank's main MG is limited to fire at the same hex as the main gun. This limits its defense value against simultaneously assaulting infantry who should take a movement phase outside the enemy's Covered Arc to set up a Close Combat situation.
- An AFV's best defense against infantry is supporting infantry either in the friendly AFV's hex or interdicting the enemy infantry's movement path.
- The best infantry terrain from which to stage an immobilization attempt is Woods terrain. However leadership DRMs can be of great value.

#### **SUPPORT WEAPONS**

- Infantry wielding Panzerfausts (and Bazookas) are best employed to either interdict potential AFV movement or in concert with friendly AFVs as tank hunting units. In the latter case, they should work in tandem with other assets to ensure that somebody enjoys a flank or rear target.

#### **ANTI-TANK GUNS**

- AT guns can be considered stationary AFVs with a higher rate of fire. As an enemy must achieve a hit on the TH table versus a gun to affect the crew, a lucky shot or a lot of firepower must be employed to remove this threat. The larger 75/76mm AT guns enjoy the same killing power of the main battle tanks. The small 50/57mm ATG will need to rely on favorable target facings to achieve a kill on a tank beyond exceptional dice rolls.
- In both classes of AT guns, when used in tandem with other assets to target the potential victim from various target facings, the killing probabilities will increase. Hence an ATG with extensive LOS and in the right position, can greatly restrict the opponent AFV's ability to close on your own AFVs.

#### **OFF BOARD ARTILLERY**

- Off board artillery can be a potent tank buster as its killing effectiveness increases proportionally to the caliber enjoyed.
- An additional benefit of OBA attacks is the potential for creating fires (assuming the full SQUAD LEADER ruleset is in use).

#### **IMMOBILIZATION**

- AFVs, which survive their immobilization roll, are subject to an addition crew NMC every time the vehicle receives an additional hit. Hence this is a losing situation for the immobilized crew, which will eventually result in the vehicles destruction unless all threats are neutralized. (39.3)
- An additional result of immobilization should the crew pass its MC is that the vehicle's Covered Arc is fixed for targeting purposes, exposing a flank or rear which cannot be altered.
- Another consideration is that a spreading fire (again, if the entire ruleset is in use) will KIA any

immobilized AFVs and force mobile ones to move rather than shoot.

- SMOKE
- Smoke shells must be the first shots taken. One cannot fire AP/HE shots then fire smoke to reduce the effectiveness of enemy return fire.
- Smoke creates a variable TH DRM (+1 through +6) or IFT DRM which is defined individually for each shot taken out of/through/or into a smoke filled hex.
- Smoke shells are used in place of a HE or AP shell. As such, they are best used by tanks/guns lacking LOS to the enemy tank but where a LOS does exist to a hex what would impede the enemy's fire to a friendly unit. Smoke shells are defensive in this usage.
- Smoke shells can be use offensively as part of a combined arms attack allowing infantry additional TEM in support of a Close Combat assault.

### **Warning: Enemy Wheatfield Ahead!**

In addition to stone walls, which may define hull-down status either for or against you, wheatfields are another terrain feature that plays a role in a combined arms tank combat. Wheatfields play only a limited role in tank to tank combat, as wheatfield hexes are not a LOS obstruction to viewing vehicles. However, they will influence tactical options when fending off a combined arms assault.

- Wheatfield terrain does influence the LOS of infantry, antitank support weapons, and same level anti-tank guns (ATGs). With exception of being adjacent where all contestants are mutually visible, wheatfields block LOS and blind AFVs to enemy units on the same elevation behind the first wheatfield hex. However, the vehicle remains visible to infantry and ATGs.
- This is true even if the ATG or tank kill squads reside in a building behind a wheatfield. Although

the building itself is visible (elevation 1) beyond the wheatfield (1/2 elevation), you cannot target this building to indirectly attack units you cannot see.

- Wheatfields also offer a relatively safe path for assaulting infantry to reach your AFV by negating the -2 Moving in the Open DRM.
- Wheatfield terrain is the most likely to catch fire and spread to adjacent wheatfield hexes. Multiple hex fires create a wall of smoke.
- AFVs Overrunning infantry in a wheatfield hex attack at full strength (16 or 8af) in SQUAD LEADER but the AFV risks immobilization or destruction on a high overrun attack DR. (38.3).

### **Implications of the Tank Duel:**

The outcome of the tank duel in this scenario can be catastrophic to one side if the result is highly uneven. Surviving Russians can roam in the German rear; flank German assets poised to challenge the Turn 5 assault guns or support the infantry assault by providing temporary TEM, deny routs and/or provide LOS obstructions. Surviving Germans can bolster a crumbling hill defense, force the dismount of the 628s riding tanks far from the hill objectives with AP/HE hits, provide rout paths for broken infantry, provide a +1 TEM for infantry underneath, deny routs or position themselves to force the Russian assault guns to run a gauntlet or fire.

Due to their limited movement capabilities, the SU122s have little PFPh or MPh latitude to fend off flanking German tanks AND advance towards the level 3 hexes if they plan to reach the summit. Any change of covered arc away from the Level 3 hexes to face MkIVs diminishes their contribution to challenge those level 3 hexes. The SU152s are even more severely impaired with only 8 MP and must charge ahead, ignoring all other challenges. As both assault

guns possess guns marked with a \*, their long-range gun combat is rather ineffectual. Unless the Russian infantry assault is successful in clearing the level three hill hexes and any rear slope strongpoints, the SU assault guns will be needed to occupy a portion of the victory hexes.

### Conclusion:

Scenario 5 sets up an AFV tank duel whose outcome is key to each side's prospects for victory. Far from being an isolated firefight, this is only one component of the larger scenario. Both sides possess other assets, which can be employed to force a successful conclusion. Similarly, both tank forces may be distracted by other opportunities and competing objectives within the larger picture. The objective of each contestant of the tank duel occurring in the early turns is not so much to achieve a decisive victory but to avoid a decisive defeat. To a novice, this conflict appears about even. However, count on a veteran player to utilize all available assets to enhance the probabilities for securing an advantage. Beyond maximizing your own probabilities via battlefield tactics, one is still at the mercy of those random dice roll generators. Such is the allure of SQUAD LEADER. Neither victory nor defeat is certain, assuming one is not psychologically defeated. Probabilities dictate you are still in the game, until mathematically eliminated.

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### APPENDIX: SQUAD LEADER Rule Particulars

These are Squad Leader particulars, some aspects may change in later rulesets.

1. For tank combat, the covered arc machine gun is not significant; as it **MUST** be fired at the same hex as the main gun (penetration against infantry targets may still be possible).
2. All tanks are essentially equal at range of six hexes or less when presenting similar armor facings (Exception: hull-down targets).
3. There is no reverse movement. Leaving a tank duel by moving into a new hex that requires you to present a non-frontal covered arc is often suicide.
4. All nationalities may shoot smoke shells (41.3)
5. The act of immobilization requires a crew NMC which, if failed, results in the destruction of the AFV. (39.3)
6. (All rules) AFVs are enemy units, preventing enemy rout in their direction.
7. (All rules) AFV main guns have a range of 16 hexes for purposes of denying routs in open ground. (Q/A)