

Work the Problems: Tanker Thought

by CPT Adriano Santiago Garcia

“Give us the tools and we will finish the job,” Sir Winston Churchill famously said during the Battle of Britain, the air conflict that saved the English island from Adolf Hitler’s invasion.

However, armies will never be battle-ready 100 percent of the time in materiel and training so that they can be deployed any place to face any situation just like magic. Some of the shortfall can be attributed to voices within individual countries who contest the military budget, and this sometimes impacts the end of the acquisition line in less-effective equipment.

But “it is what it is,” as the saying goes; one works the problems before one. This article’s main objective is to show the difficulties and solutions tank leaders face when they know their machines are not state-of-art. As an example, we will analyze a tank company equipped with the basic version of a Leopard 1A5 tank and look at how tank leaders work to minimize their problems.

International problem

Not-state-of-the-art materiel is an international problem. Many times, multinational task forces mix different tanks, Infantry Fighting Vehicles and armored personnel carriers within the same battle group. As we know, leaders need to make all assets work together to accomplish the mission.

In Latin America, Eastern Europe and some Asian countries, armored forces’ reality is that Cold War-era vehicles might be upgraded in some capabilities but still conserve their original firepower and ammunition set. Inside this reality, preparing and training individuals and tank crews is priority when operations require tank-forces deployment.

Observing the countries of Strong European Tank Challenge (SETC) 2018, it is possible to illustrate the differences in equipment in basic aspects such as armored protection, command-and-control and, most importantly, firepower.



Figure 1. Different types of tanks used during SETC 2018: Germany, Leopard 2A6; France, LeClerc; United Kingdom, Challenger 2; Poland, Leopard 2A5; Romania, TR-85; Sweden, Stridsvagen (“combat carriage”) 122; Ukraine, T-84; and United States, M1 Abrams.

Work with what you have

Some observations regarding firepower:

- The first thing a tank leader will observe when he studies an enemy is the firepower of his weapons.

Our Leopard 1A5 is equipped with a very reliable fire-control system (FCS) that has the same first-hit probabilities that Leopard 2 tanks have. The German-built version of the British L7 A3 105mm gun, similar to the American M-48 Patton (and its descendent, the M-60), certainly increases range capabilities and armor penetration.

- In tank-against-tank combat, the larger caliber will possess the standoff, hitting our forces long before our FCS can be in active range to fight.



Figure 2. The Taiwanese army has 220 M-60 tanks in service, which have the M-68 105mm gun.

When a tactical leader knows that his adversary's main battle tank has a similar or inferior firepower to his tanks, the first step in defeating the enemy is to really know his gun range to cripple the enemy's tanks and disable his FCS through our mobility.

- Employ overkill shooting. To know the damage each type of tank ammunition can create, leaders should design different types of operational scenarios where they might use more ammunition on each target than needed.

The use of overkill shooting creates the real damage so that during mission analysis, leaders can requisition up to twice the amount of ammunition than normal.

- The logistics process to rearm must be perfectly trained to maintain the maximum number of tanks in an engagement.

The crew's gunners and tank commanders need to be especially sharp and ready to see first, identify first and react first (the "three Fs" process). For this to happen, the platoon's master gunner must obtain the maximum rates during training tables -- especially the most elementary ones -- to create the almost-instantaneous response amalgamating the "three F" tasks.

When tank leaders have perfect knowledge of how much blast they have and how accurate their shoots are; understand disadvantages of overloading the logistics structures; and are sure of the part they will play, they have the tools to start a real, consistent plan.

However, despite all the information and intelligence that leaders will use to create their orders, it is important to remember the famous quote of Helmut von Moltke, the Prussian army's chief of staff before World War I: "No battle plan survives contact with enemy."

Work where you are

Seize the high ground. The Yom Kippur War is an example of when good use of terrain was the solution to facing a more powerful armored force. Israel used a mix of different types of tanks when it was trying to block two invasion forces: Syria, invading Israel's north in the Golan Heights, and Egypt, coming into the south across the Suez Canal into the Sinai Desert.

Israeli tanks took the high ground in the desert to block Egyptian forces equipped with cutting-edge Soviet materiel. When Egyptian tanks approached Israeli defense positions, they were stunned to realize their guntubes couldn't elevate to engage the Israelis, and this advantage reversed the situation for the Israelis, allowing a free shoot on the Egyptian tanks below.



Figure 3. An Israeli Centurion tank operates in the Sinai during the 1973 Yom Kippur War. On Oct. 6, 1973 – Yom Kippur, or the “Day of Atonement,” the holiest day in Judaism – Egypt and Syria launched a coordinated surprise attack on Israel. Egypt attacked Israel on its southern front, crossing the Suez Canal into the Sinai Peninsula. (Israel Defense Forces archives)

Use camouflage. In the years following the Yom Kippur War, each nation's tanks became more heavily armed and protected, giving tankers the sense that each ton brought more force and each vehicle was its own sealed fortress. But when our enemy is more protected than we are, two basic aspects become critical to success: camouflage and proper terrain use.

Recent generations will not believe that camouflage discipline is functional in the drone-observer or thermal-camera era. Reliance exclusively on gear can be exploited as a weakness, so leaders should understand the materiel's capabilities.

New camouflage net can cover, occult or dissimulate the shape, color and heat signature of armored vehicles, so the correct camouflage discipline – that includes covering tracks visible from the air – correct use of natural and artificial covers, and discipline in communications – for example, use of wire communications in assembly areas instead of radio – can create a false sense of security in the enemy.

Proper terrain use. Closely associated with seizing the high ground is the principle of using the terrain in two aspects: against the enemy and in your favor. The enemy will plan the same thing, of course, but the main difference is in how terrain will impact the tanks of each side.



Figure 4. Leopard 1A5 tank.

As an example, Leopard 1A5 tanks weigh less than 45 tons combat-ready, so they have more effective off-road capabilities than most heavy tanks. Heavy tanks are more prone to getting stuck in mud or are denied passage through some kinds of terrain, so this works against an enemy, creating a natural death trap.

Planning to use the terrain to our advantage requires focus during the crew-training phase. Tank commanders must study how to maneuver their own vehicles; approach enemy positions while protected at points that permit shooting; and disappear with steady and synchronized maneuver to gain terrain or just create damage.

Improving odds

The principle to success during planning and training is to be a hard, true self-critic. Only then will it be possible to rank your main weak spots. After this analysis, you do hard work in training on those points while starting to think of creative solutions to solve or lessen problems.

The constant work will improve how you get the best of your equipment such as thermal-vision observations. It will also help you in searching for targets using tank sights and other devices such as binoculars; to understand hotspots in the heat signature; and to improve your tank's possibilities and tactics, techniques or combat actions.

Tank leaders in the entire chain of command must conduct a regular and constant study of new technologies, ammunition types and devices to regularly check how effective training is and adapt to overcome the most dangerous things – or even to suggest the modernization of components.



Figure 5. Planning process and simulation.

Principles of joint operations

Some principles:

- The highest tactical leaders may follow operational principles to design their orders, but if those principles are not imparted to the other side of the chain of command, the principles can kill the planning process itself.
- We explored the condition that if your tanks aren't in state-of-the-art shape, you may need more logistics resources to sustain operations.
- There is the side that thinks the principle of economy-of-force must be supreme to all others and give the minimum resources necessary to troops in the field.
- Further, public opinion most times will disapprove of a large, well-armed force in the field, voicing non-operational arguments.
- The raid on Mogadishu in 1993, the "Black Hawk down" event, is a strong argument that the principles of offense, mass and maneuver always go together when employing armored task forces.

Conclusion

The history of armored forces has proved more than once that those who have the strongest force may not win battles. For example, the lighter and outnumbered German forces' raid on France in 1940 showed that tanker skills are still a success factor in operations.

The two invasions of Iraq proved that in open field or urban scenarios, tanks are still key in securing the ground advance.

There are no great secrets to achieving victory other than a hard, serious training plan and critical thinking, always trying to think how the enemy will exploit your weaknesses and overcome your troops.

Besides all these aspects, the great GEN Heinz Guderian quote is still in every tanker soul: "If tanks succeed, then victory follows."

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Acronym Quick-Scan

FCS – fire-control system

SETC – Strong European Tank Challenge