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Battleground Idlib: Lessons for Mechanised Forces

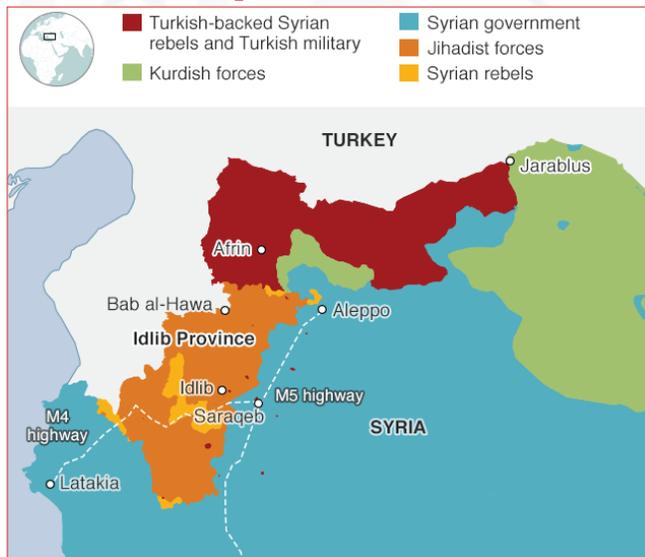
No aircraft ever took and held ground.

– US Marine Corps Manual

Idlib – The Final Frontier

Idlib is the last of the four so-called de-escalation zones agreed by Russia, Iran and Turkey in 2017,

Map 1 : Idlib Province



Source: Jane's Conflict Monitor (17 February 2020) (BBC)



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Key Points

- Fundamentals of modern warfare getting altered, is imperative to assimilate impact of technology and tactics across conflicts.
- An innovative and first ever large-scale offensive use of UAVs and drones in a military operation.
- Integration and indigenisation of weapons and platforms is imperative.
- ISR and its denial – a key battle winning factor – therefore, its time to incorporate machine learning and AI.
- Innovative ways of manoeuvre is the requirement of the time.
- 'Force Packaging' – need for a full ecosystem of 'air cavalry'. Tanks will have to be technologically modernised and integrated further with all sensors and shooters to operate in a synergised manner. Integrating effective layers of air defence capability is inescapable.
- Mechanised Forces will remain the 'Fulcrum' of military operations.
- India focusing on a dynamic response along Western and Northern borders that is below the threshold of an all-out conflict.

The Centre for Land Warfare Studies (CLAWS), New Delhi, is an independent Think Tank dealing with national security and conceptual aspects of land warfare, including conventional and sub-conventional conflict and terrorism. CLAWS conducts research that is futuristic in outlook and policy-oriented in approach.

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Battleground Idlib: ...

which has still not been taken over by the Syrian regime. Idlib is a city in northwestern Syria, 59 kilometers southwest of Aleppo, which is the capital of the Idlib Governorate. The city was taken over by the Syrian rebel militias at the beginning of the Syrian Civil War in 2011 and by 2017 was the seat of the Syrian Salvation Government.

Idlib Politico – Military Issue

Idlib is controlled by Syrian opposition groups. However, the dominant force is the Al-Qaeda linked jihadist alliance, Hayat Tahrir al-Sham (HTS). HTS was set up in 2017 by a group that broke off formal ties with the Al-Qaeda. It is designated as a terrorist organisation by the UN.¹ Turkey had established observation posts in Idlib since 2017 and in 2018 signed a deal with Russia for a ceasefire in the province – it wanted to prevent millions of Syrian refugees from Idlib coming over to Turkey. Tensions in Idlib rose in Jan/Feb 2020 due to a Russian-backed Syrian regime offensive, to retake a strategic highway to Aleppo. Turkey, however, deployed thousands of soldiers and armoured vehicles to prevent the regime from continuing its advance and in response the regime shelled Turkish positions and killed dozens of Turkish soldiers. Although, Turkey can't fly its Air Force in Idlib due to a ban by Russia and the Syrian regime, but Turkish drones can certainly fly.

UAVs/UCAVs and Drones: The Offensive

The Battle

Responding sharply to a Syrian air raid on a Turkish mechanised unit near Idlib city that killed 34 Turkish soldiers², the Turkish military deployed

dozens of drones in a coordinated series of attacks on Syrian vehicles and positions. Not only the Bayraktar TB2 was used but also the newer UCAV – the heavier, armed, satellite-linked ANKA-S – saw its operational debut in the battle over Idlib.³ The Turkish air raids destroyed dozens of Syrian tanks, APCs and Air Defence (AD) systems, thereby, sharply halting Syria's advance towards Idlib. Turkish air offensive over Syria did not use manned aircrafts but fleets of UAVs/drones. Military drones have earlier been used as assassination tool, but this was the first major large-scale innovative offensive by one military against another in a conflict.

Drone Attack

Turkey commissioned its drone programme and initially made the Bayraktar TB2 UAV with a range of 150 km, which it tested against the Kurds in Syria. What is more important here is that, it combined artillery and drones and perfected this tactic (which was later used for 'telling effect' in Idlib). According to Turkish accounts, it devastated some Syrian regime units – damaging or destroying up to 100 tanks, 72 artillery pieces and several AD systems (the Turkish news agency Anadolu quoted the Turkish Defence Minister Hulusi Akar as saying that Turkish forces destroyed two Syrian Su-24 fighter jets, two drones, 135 tanks, five AD systems and 'neutralised' more than 2,500 fighters loyal to the Syrian government).⁴ Russia's decision "not to close the airspace" was vital to Turkey's success, in causing damage to the Syrians. Had Russia opted to close the airspace over Idlib, where Turkish troops are stationed as part of a 2018 ceasefire deal, Turkey would have had less room to manoeuvre.

The 'Drone' Advantage in Idlib Assault

The several ways in which the drones were used are as under:

- As spotters for long-range rapid-firing artillery, identifying Syrian armoured columns and relaying their position to self-propelled (SP) guns and multiple rocket launcher systems (MRLS), which destroyed them before they could seek shelter.
- The drones themselves targeted enemy positions and vehicles with a variety of munitions. The munitions were indigenous and therefore easier to integrate with the drones.
- They were able to engage enemy aircrafts when equipped with the right armament. For the first time, over a conventional battlefield, they flew in squadrons, to overwhelm Syrian AD systems, thereby, quickly knocking them out.

UAV/Drone Offensive

UAV/UCAVs: How Far can they be Employed?

UAVs/UCAVs swarming and overwhelming ground targets is still far away. For a UAV to carry and deliver multiple anti-tank warheads, it has to have the size (for weapon attachment) and the endurance (for multiple targets). UCAVs can't swarm because of its size – they are too big. Therefore, they operate in pairs or multiples but not as swarms – not yet! Swarming implies a very high degree of precision flight control and engagement synchronisation amongst multiple UCAVs that seek and destroy multiple targets with Artificial Intelligence (AI) assisted autonomy. That's possible with micro UAVs or maybe miniature

ones, programmed to seek and engage targets in a densely packed (rich) target environment where targets don't have equivalent capability to respond/react. Its actual usage in a conflict may still be a 'sci-fi concept'.

The Drawbacks

Notwithstanding the obvious advantages, while these weapons have been used in innovative ways over Idlib, they're not invulnerable. They are relatively slow-moving and can be shot down by a well-armed opponent as they have been in Syria, when three ANKA-S drones were downed by Syrian AD and shoulder-launched weapons (however, it is necessary to keep in mind that slow movement allows greater loiter time).

Media Analysis of the Offensive

While giving details of Idlib offensive, Nick Reynolds and Jack Watling in their article *Your Tanks Cannot Hide*,⁵ have put forth the argument that the ISR capability of modern-day systems can pick up, identify and handover targets to the shooter for successfully engaging targets especially tanks and the employment of tanks in future would be limited. This gives us an opportunity to analyse and draw out relevant lessons for our forces – tanks, infantry carrying vehicles, SP guns, ground based AD radars and other command & control systems.

Is the Context Correct?

In the present context, to equate Syrian armour suffering at the hands of Turkish UAVs to ours, will be a wrong lesson to take. This is purely against urban insurgents and the engagements are mainly

in urban and built-up areas. The Syrians have been probably conditioned to only 'ground threats' and lulled by assurance of Russian AD cover (or tacit prohibition against Turkish air activity). Subsequent ambush of unsuspecting Syrian armour by Turkish UAVs is like 'target practice in a firing range'. It needs to be considered in light of the very poor condition of Syrian armour in terms of crew quality (conscripts), poor equipment (close to legacy OEM standards), disintegrated command/leadership during the ambush leading to abandonment of many tanks and above all absence of any integral/organic AD surveillance or protective elements. It will be a mistake to read too many lessons from just one engagement. However, one must draw suitable lessons and try to assimilate impact of technology and tactics being used in different parts of the world engaged in different set of conflicts.

We also must not rule out propaganda which is an intrinsic part of grey zone warfare. Consider this one sentence, *'Footage released by the Turkish military clearly shows that they destroyed dozens of Syrian Army armoured vehicles and killed over a hundred soldiers'*⁶ – it is a part propaganda to assuage Turk sentiments over loss of 34 Turk soldiers.

Anti-Tank Warfare

Anti-tank warfare is nothing new. The arrival of tank in 1916 saw the advent of anti-tank systems simultaneously (1917). Guided anti-tank missiles were first used in a helicopter borne role by the French in the late 1950s, when they mounted SS-11 wire-guided missiles on Alouette II helicopters.⁷ The future of the tank was questioned in the 1960s due to the development of anti-tank missiles, but increase in thickness and composition of armour and other improvements in tank design,

thwarted the threat. This fight/competition still continues.

The Indian Context

The 3201 km Indo-Pak border has 2308 km of IB. Of the 3201 km, approximately 2400 km is suitable for employment of armoured formations. Syria shares 822 km border with Turkey and the current operations are focused in an area of approximately 250-300 km. It is prudent to note that the context of Indo-Pak battlespace is over 10 times in space and the entire war machinery will come into effect in both conventional war as well as limited war. However, relevant lessons from Idlib could be drawn out to study and put into our plans.

Lessons to be Learnt

Some important lessons are as follows:

- Indirect fire, particularly airpower, if queued against static or exposed vehicles, can be devastating. There is a need for integrating effective layers of air defence capability including EW, ground-based air defence systems (GBADS), short-range air defence (SHORADS) and radar-warning systems. AD is extremely important.
- Armoured vehicles, in a given area on the modern battlefield, are difficult to hide – ubiquitous availability of high fidelity ISR assets, from electronic and multispectral sensing, to video feeds from UAVs, leaves little room to hide. This needs to be overcome. High density of sensors is decisively reshaping the battlefield as also becoming the first target of/ for the enemy.

- Increased range and endurance of modern ISR puts the mechanised columns under threat when they are traversing. Concept of manoeuvre and the way it is propagated on ground needs a rethink.
- There exists a need to overwhelm an opponent's analytical capacity and thereby prevent prioritisation of targets. Therefore, presentation of a number of targets to the enemy is also necessary i.e. quantity has a quality of its own.
- We need to develop indigenous capabilities to produce Drones/UAVs as also its counter.
- The definition of air dominance/superiority has to change. It cannot be limited to just enemy aircrafts, it has to be 'blinding the airspace above'; which would incorporate neutralising all kinds of enemy sensors, aircrafts, satellites and EW capability.
- ISR, acquisition and denial, have to go hand and hand. As far as denial is concerned, both kinetic and non-kinetic options have to be developed. For tactical superiority and in the TBA, we need to develop and have capabilities to track and destroy drones/UAVs. Machine learning and AI becomes critical and with its incorporation in the broader ISR framework, we need to move to the ideal pairing between sensors and shooters in near real time.

Issues for Consideration

Organisation and New Ways of Fighting

Richard Simpkin in *Race to the Swift* 'stresses the need for both infantry and artillery to help get tanks forward and points out that the turning action of a mobile force can only be developed if there is a main force which acts as fulcrum and to hold the enemy forward'.⁸ Armed drones have posed a serious tactical problem for mechanised forces and hence their efficacy on battlefield would depend upon how fast this problem is resolved. Mechanised forces have to now fight not only on ground but also in the sky, therefore the fulcrum remains the same, integrated with the third dimension with ISR capability. The fast-mobile weapon platform on ground and air needs to be fully integrated – to work as an integrated team. Mechanised forces will have to graduate to a full ecosystem of 'air cavalry' (from Attack Helicopters, Drones/UAVs to integration of all sensors and shooters) not only to destroy enemy platforms but also to control the airspace above them to operate. Broad contours could be:

- Integration of all available resources (whole of government approach including all services) to establish sensor and shooter grid, needs to be put into place at the earliest. In this integration, sensors – low cost radars/UAVs/helicopters/low earth orbit (LEO) satellites, etc. – needs to be part of this ecosystem. The shooters, which could be based on ground based weapon system/UAV or helicopter launched missiles/AD aircrafts could be employed to neutralise command and communication infrastructure and UAV/drones. A dedicated LEO satellite over the battlefield to track drones and ground based AD acting as shooter (modification of Akash missile to neutralise drones), could also be explored.
- From the 'platform' itself or from the 'force package', is the first step towards operating in such an environment. 'Force package' of mechanised forces now requires dedicated sensors and shooters to soften the area for it to operate, therefore, making sure that the threats from above are not profitable for the enemy.

The anti UAV/drone capability needs to be integrated with the fighting formations.

- The tactical drills and operational manoeuvre by the mechanised forces also needs to undergo modification to operate in small packages, thus overwhelming the enemy, while retaining the flexibility to quickly concentrate to operate.

Tank Technology – Acquisition and Detection Avoidance

To counter the various threats and more so from the air, tank designers are enhancing ‘detection avoidance technology’ supported with an array of complimentary weapon systems and platforms to work with the tanks. Modern technologies such as aggressive active protection system, see through armour, holographic projection of tanks, dazzler lasers, adaptive camouflage, active electronic armour etc. have moved a great deal. Modern and emerging tanks would have massively enhanced ‘sit awareness sensors’, advanced target acquisition system, panoramic TI sights, missile firing capability and moving forward to lasers and EM guns. The potential array of, high speed electro-hybrid drive train and mounted laser emitters is leading to the development of light, high capacity batteries to fulfill the need for increased requirement of onboard power.

Employment of Mechanised Forces

Modern and futuristic tank designs should focus on lowering radar signatures and reducing weight to enable rapid deployment. Tank technology has evolved a great deal and the modern main battle tank (MBT) can now execute a range of day and

night missions in open and urban spaces, travel at speeds in excess of 70 km/hr and cover more than 400 km. With non-conventional conflicts increasingly replacing nation-state wars, heavy tanks are being complemented with lighter variants that can assist the infantry in urban areas, provide fire support and also carry soldiers into battle. Apart from conventional and direct fire roles, the mechanised forces (tanks and the ICVs) can be outfitted for a variety of operations such as tank ambushes, raids, anti-helicopter roles, clearing minefields and obstacles, detecting IEDs, ISR and communications. Mechanised forces can also be tasked to operate below the threshold level of an all-out conflict. To move into enemy territory and occupy ground – especially on the Western Front and in many areas on Northern Front – mechanised forces led by armour still would be the fulcrum.

Overall Assessment

Future of Conflict

Much has been written on the changing character of war and emergence of grey zone war and hybrid war. In our context the conventional warfare still holds good with the two neighbours (China and Pakistan) till the boundary issue is resolved – although the probability of the same is bleak. Therefore, keeping the environmental realities in focus, Indian Army as per COAS, ‘apart from strengthening its conventional prowess, is focusing on a dynamic response along its Western and Northern borders that is below the threshold of an all-out conflict.’⁹ We need to prepare for a full spectrum – below the threshold and limited to full scale. If this is the need of the hour, then for the response mechanism for an escalatory ladder, the focus needs to be on development of capabilities

– the priorities needs to shift, budgetary envelope pushed and Indian defence industries need to make quality products for our needs.

Mechanised Forces as the Fulcrum

Possible visions of the future battlefield feature – unmanned armoured ground vehicles – will be playing their part. In many respects, this represents the logical extension of the growing move towards greater automation which has made familiar items of drones and has already brought unmanned turrets and remote control to armoured vehicles. Being mainstay of modern military, the tank will continue to play a role in tomorrow's battlefields, with adequate changes in its application, in keeping the challenges of future warfare, as there will always be an enduring need for 'boots on the ground' in any conflict in our scenario. The response mechanism in a limited conflict and escalation thereafter would entail troops moving into the battlefield, which would be led by the mechanised forces as the 'central core' (Richard Simpkin's "Fulcrum") around which the ground forces (Infantry) supported with fires (Artillery), and the space above dominated/protected (AHs/UAVs/Drones/AD) with an overarching networked architecture of ISR and communication. The airspace in a conflict shall be dominated and enemy UAVs/armed drones will not be able to operate with impunity with their launch areas including airfields being targeted. For mechanised forces, especially armour to operate, control of the skies would be essential. This trend is likely to continue, possibly even evolving, to enable armies to deploy a ground swarm of drone vehicles in support of conventional MBTs and armoured fighting vehicles (AFVs).

Conclusion

We need to balance lessons with our threats. Presently and in the foreseeable future on our fronts, without tanks no battle can be won either in BUAs, restricted or desert terrains; it would hence continue to play a decisive role but their efficacy would be closely linked to neutralisation of threats from the air, especially drone threat. Despite doubts being raised over its viability, the MBT remains the backbone of our armed forces. However, as the fundamentals of modern warfare get altered, tanks and other mechanised platforms will have to technologically modernise and integrate further with all sensors and shooters to operate in a synergised manner. Integrating effective layers of air defence capability is inescapable – they now have to be part of a wider and diverse weapons package that works in tandem with other systems in a highly complex and demanding environment.

The future combat vehicles may completely change the concept of tanks – from fielding Directed Energy Weapons that can destroy targets from long distance, to integrating one or two-man crew and sharing data, to operating with a swarm of drones and using thermal & environmental shroud as camouflage, the future tank will look nothing like its predecessors. Laced with sensors and active jammers, the tank would be impervious to electronic and cyber attacks while operating and engaging multiple hostile targets on land and in air. Given the raw power that it brings to the battlefield the future combat vehicle is set to emerge as a far more versatile and potent fighting machine, capable of operating in any terrain. The question will remain – are we future ready? Tactically and Technologically!

... Lessons for Mechanised Forces

Notes

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9. Gen M M Naravane (COAS), Pragyan Conclave 2020, *CLAWS*, 04 Mar 2020. Accessible at <https://www.claws.in/event/pragyan-conclave-2020-indian-army-international-seminar/>

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