Evolving Terrorist Tactics, Techniques, and Procedures (TTP) Migration Across South Asia, Caucasus, and the Middle East

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<u>Abbreviations / Glossary</u>

AA – Anti Aircraft

AAIED – Anti Armor IEDs

AFPAK- Afghanistan & Pakistan

AIF – Anti Iraq Forces

AQAP – Al Qaeda Arabian Peninsula

Bandformirovaniya- Russian for band of men

CBRN – Chemical, Biological, Radiological and Nuclear

CQ – Close Quarter

EFP – Explosively Formed Projectiles

FATA- Federally Administered Tribal Areas

HME – Homemade Explosives

IED – Improvised Explosive Device

Kuffar- Arabic term meaning, unbeliever.

LTTE – Liberation Tigers of Tamil Eelam

Mujahideen- Freedom Fighter, often referred to as an Islamic Militant in Afghanistan

RPG – Rocket Propelled Grenade

SAF- Small Arms Fire

Shahidka – Russian term referring to Female Suicide bombers or 'Black Widows'

TTP – Tactics, Technique & Procedure

UAE – United Arab Emirates

UXO – Unexploded Ordinance

VBIED – Vehicle Based Improvised Explosive Device

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Introduction

In the last thirty years, South Asia, Caucasus and the Middle East regions have seen an increase in the number of theaters of terrorism and insurgency. Attacks have often become bloodier, and terrorist campaigns have become more effective in achieving this aim. There are trends which show that even though certain groups are unrelated and no formal links are shared, there are lessons learned from each other's past experiences. The Tactics, Techniques and Procedures (TTP) are what are often learned from each other depending on their relative success and potential transfer to a different conflict in a different environment. There are certain characteristics which highlight similarities in TTPs suggesting a transfer of information.

There is often confusion over the designation of terms relating to terrorist, insurgent and separatist's definitions. Terrorist groups are radical groups which have an ideological or political motive for their actions. Their main weapon, is as their name suggests, terror or fear. The ability to strike anywhere at any time is their greatest asset. Insurgents are people who oppose the constituted authority. Separatists are, similar to insurgents, but are held together by a common ethnic, tribal or religious bond. Terrorists, insurgents, and separatists all favor asymmetrical warfare because of the more favorable conflict parameters.[1]

Terrorist groups can form out of any situation, from a poor European city to a highly industrialized Asian city. Insurgent groups often form out of weak states or areas within a state which are failing, but not the country as a whole. These weak states are seen as attractive destinations for criminals and terrorists because they run little risk of interference from the local authorities. Given the fragile condition of some South Asian, Caucasian and Middle Eastern states, the established criminal networks, aid the growth and survival of these terrorist and insurgent groups. Until these states are more capable of asserting control over their borders and territory, these groups will continue to flourish, learning from each other's past experiences.

TTPs are split further from the name by two independent but necessary characteristics of knowledge. Firstly there is *explicit knowledge*. This is the theoretical information which is often stored in hard copies, such as textbooks, manuals and on computers through PDF and video files. These are extremely easy to get hold of, but without the appropriate teaching or experience, this easy access information isn't performed effectively. Secondly there is *tactical knowledge*. This is

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[1] Throughout this special report, we use "terrorists" as a moniker, except when regarding Iraq and Chechnya and especially Hezbollah which we define as a resistance movement.

most commonly taught or learnt through experience and hands on teaching. This makes it much harder to transfer but when properly acquired, is far more effective.

TTPs need to evolve in order to maintain success of future attacks. Terrorists can innovate tactically to obviate existing security measures and confuse authorities. Authorities are obliged to prevent the recurrence of the most recent attack, while knowing that other terrorists will analyze the security in place, devise new tactics, and, hopefully from their point of view, the unexpected. Terrorists will continue to focus on soft targets that offer high body counts and that have iconic value. Nationally and internationally recognized venues that offer ease of access, certainty of tactical success, and the opportunity to kill in quantity will guide target selection. Public spaces are inherently difficult to protect. Major investments in target hardening make sense for government only when these provide a net security benefit, that is, when they do not merely displace the risk to another equally lucrative and accessible target. This doesn't however mean that military units aren't targets for terrorists but civilian targets are easier to target.

Terrorist TTPs are clearly another term for guerrilla warfare, and exploit this to their advantage. TTPs are executed differently in urban to rural environments, but have similar ideals behind them. For example, ambushes and harassments, occur in both environments, are performed differently; in a rural environment, the mountains (with the potential for cave systems being used), and foliage are used as cover for the attacks, whereas in an urban environment, civilians and buildings/compounds protect the aggressors. Different weapons are also used, as there are various strengths within a different environment. For example, the potential for Anti-Aircraft (AA) capability is extremely limited within weapon armories, but also it is performed better in a mountainous environment because it is easier to flee the position from which the weapon was fired from.

Terrorist Organizations

The Liberation Tigers of Tamil Eelam (LTTE or Tamil Tigers) are included in this report because of their distinctive TTP's which set them apart from other terrorist groups during this time. Suicide bombing became a popularized TTP for modern day terrorist organizations. In addition, heavy weaponry possessed by the LTTE helped to prolong the conflict for the LTTE.[2]

Chechen separatists are incorporated because of their bold tactics and relentlessness against the Russian Army and Special Forces. Chechen separatists have mastered mountain tactics, and have been a clear example of using their environment in order to succeed in their ambushes and harassment of Russian forces. The target selection of the Chechen separatists is also a defining feature of the group. The Chechen separatists often look to exploit the media and produce effective propaganda to further their aims. Chechen separatists' are widely known for the female suicide bombers or *shahidka* which attract a lot of attention to their cause and is unique to their cultural attributes although these factors are seen elsewhere throughout the region and beyond.

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[2] The LTTE were however defeated. The LTTE are an example of a terrorist group that waned and disappeared because the Sri- Lankan Government defeated them through their superior military capabilities and impressive intelligence network. The pressure from internally displaced peoples also heaped pressure upon the LTTE.

In Iraq, small insurgent groups are the focus. Shi'a militias as well as radical Sunni groups are looked at in detail. Their aim has often been to destabilize the country as well as engage in starting a civil war. These groups invest mostly in IED attacks, but suicide bombings and harassment and ambushes are also popular. Post election violence has also seen renewed sectarian violence, with bloody attacks occurring.
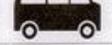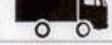
In Afghanistan, Taliban and Al-Qaeda forces are the main focus. Their fight against the Afghan Army and coalition forces is their underlying struggle. Both groups are violent Salafi and Deobandi groups. They, like their "brothers" in Iraq, often resort to IED attacks and suicide bombings. Much of the TTPs used in Afghanistan are also fought in rural environments, especially along the Afghanistan-Pakistan border (AFPAK), and so mountain warfare tactics are also often employed. Recent times in Afghanistan see the U.S. and coalition forces fighting the same type of militants, who only two decades earlier they funded in an attempt to reduce Soviet influence. These TTP lessons carry on. Pakistani and Afghani sponsored terrorist groups on the subcontinent, such as Lashkar – e – Tabia (LeT) have benefitted by adopting leadership and training, often resulting in bloody, violent attacks.

In Yemen, Houthi forces have battled Saudi Arabia and the Yemeni government. Yemen collapsed following a revolution in 1962, and in 1994, during the Yemen civil war, Saudi Arabia helped the Northern Government overcome the Southern Marxist forces. To date there have been five outbreaks of conflict, with both the Yemeni Government and Saudi Arabian forces, with a recent fragile ceasefire enforced. Houthi's exploit the mountainous region in which they inhabit to their advantage. There have also been rumors of Houthi troops using the tactic of suicide bombing. The bombing of the Amran Mosque, attacks by reported child suicide bombers on government troops in July 2008 are examples of Houthi's employing suicide bombing as a tactic.

Suicide bombing, is however, gaining traction yet again and attributed more to the tactics of Al Qaeda Arabian Peninsula (AQAP). Like Al-Qaeda, it fiercely opposes the Saudi Government. AQAP is a merger of Al-Qaeda forces in Yemen and Saudi Arabia. Saudi followers have recently been the targets of a fierce clampdown and have escaped to Yemen where they can follow their ideology in relative security. AQAP has seen their recent status grow exponentially through a series of failed attacks in Europe and the U.S., terrorist recruitment by AQAP ideologist Anwar Al-Awlaki and conflict with the Yemeni Government and foreign personnel within the country. Targets often include diplomatic staff, with the UK and U.S. Embassies and their staff repeated targets. AQAP also threatens Saudi and UAE interests.

We note Hezbollah isn't considered in the same bracket as the other insurgent and terrorist organizations because they are part of the Lebanese state and are a resistance movement. They are extremely well organized and have a much more powerful arsenal which is deemed vastly superior as a state force.

IED's (Improvised Explosive Devices)

ATF	VEHICLE DESCRIPTION	MAXIMUM EXPLOSIVES CAPACITY	LETHAL AIR BLAST RANGE	MINIMUM EVACUATION DISTANCE	FALLING GLASS HAZARD
	COMPACT SEDAN	500 Pounds 227 Kilos (In Trunk)	100 Feet 30 Meters	1,500 Feet 457 Meters	1,250 Feet 381 Meters
	FULL SIZE SEDAN	1,000 Pounds 455 Kilos (In Trunk)	125 Feet 38 Meters	1,750 Feet 534 Meters	1,750 Feet 534 Meters
	PASSENGER VAN OR CARGO VAN	4,000 Pounds 1,818 Kilos	200 Feet 61 Meters	2,750 Feet 838 Meters	2,750 Feet 838 Meters
	SMALL BOX VAN (14 FT BOX)	10,000 Pounds 4,545 Kilos	300 Feet 91 Meters	3,750 Feet 1,143 Meters	3,750 Feet 1,143 Meters
	BOX VAN OR WATER/FUEL TRUCK	30,000 Pounds 13,636 Kilos	450 Feet 137 Meters	6,500 Feet 1,982 Meters	6,500 Feet 1,982 Meters
	SEMI-TRAILER	60,000 Pounds 27,273 Kilos	600 Feet 183 Meters	7,000 Feet 2,134 Meters	7,000 Feet 2,134 Meters

IED's are becoming increasingly popular because of the casualties that they incur. IED's are not an innovative tactic, nor complicated to assemble. It is in fact their simplicity which is their greatest strength. Most commonly IED's are often made from artillery shells or other forms of Unexploded Ordinance (UXO). Another material which is becoming more popular is Ammonium Nitrate. Ammonium Nitrate is an easily accessible and common chemical which is inexpensive and relatively safe to transport. Homemade Explosives (HME) are being more commonly used, and attacks are often HME attacks. Many are predicting that in the future there will be, inevitably, a chemical or biological, radiological or nuclear attack (CBRN).

IED's have commonly six components to them;

- *Case or Container*; Pipe, Vest, Vehicle, Bottles, Animal Carcass
- *Power Source*; Electric Source which are most commonly batteries
- *Switch*; Time, Victim operated, Command
- *Initiator*; Blasting Cap
- *Main Charge*; Commercial/ Military explosive, HME
- *Enhancements*; Fuel, Fragments (Nails, Marbles, Scrap Metal), CBRN

VBIED's (Vehicle Born Improvised Explosive Devices) often inflict more damage. This is purely due to the size of the bomb. A car, truck or plane can be laden with explosives and fuel, and detonate at a designated target causing many casualties. In modern history two events stand out which demonstrate the potential force of VBIED's; Beirut Barracks Bombing (1983) and the 9/11 attacks in America. According to an Al-Qaeda training manual:

"Explosives are believed to be the safest weapon for the Mujahideen [Using explosives] allows them to get away from enemy personnel and to avoid being arrested. An assassination using explosives doesn't leave any evidence or traces at the operation site. In addition, explosives strike the enemy with sheer terror and fright." [3]

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[3] Intel Centre, *al-Qaeda Target- Tactic Brief,* v.1.5, 14th June 2002, p. 11, (http://www.intelcenter.com/QaedaTacticTarget-v1-5.pdf). This 'Al-Qaeda document' was taken as a result of a police raid on a house in Manchester, UK. This document is widely available on the Internet, and has been translated into English. See also (http://www.thesmokinggun.com/archive/jihadmanual.html), (http://cryptome.org/alq-terr-man.htm)

Interestingly, in Sri-Lanka, the LTTE rarely employed the use of IED's and VBIED's. VBIED's were more commonly used than IED's, purely for the powerful effect that was a result of the attack. LTTE more commonly use suicide bombings in their attacks. This is discussed in the next section.

Chechen separatists have rarely employed the tactic of IED's, mostly against Russian military targets within their two wars. IED's have been deployed in the form of mines and will often start the ambushes/harassments by Chechen militants. IED's have become an integral part of assaults, inflicting considerable damage as well as a distraction.

In Iraq however IED's and VBIED's were and are still a common tool of terrorists and insurgents there. Within an urban setting IED's are relatively easy to hide, with the major restriction being the basic technology which will often lead the IED to be made out of an old artillery shell, so the size is often a problem. Remotely detonated, pressure detonated and timed IED's are all common detonators of IED's. IED's are often used against patrolling coalition and Iraqi forces; these are referred to as roadside bombs, and often employed in a 'daisy chain formation.' Because of the indiscriminate nature of an IED attack, civilians are commonly caught in the attack. IED attacks have often been used in conjunction with assaults and ambushes.

VBIED's are also used within Iraq and are harder to spot. Checkpoints have been set up around the country, trying to limit the amount of VBIED's as well as trying to limit the transfer of weapons. VBIED's also don't require the assailant to commit suicide, yet if they wish to they can drive the VBIED into its attended target. Often the vehicle is stolen or is a scrap yard vehicle. Most of the time, the vehicle is stripped and stacked full of fuel, artillery shells and other explosive material, in order to cause the most damage possible. This does however highlight one of the few ways a VBIED can be spotted. Often the vehicle is so heavily laden with explosives and other material, it will be hanging low on its suspension. Also because of the most likely history of the vehicle, it will often be hastily painted and or be stripped of its contents i.e. seats, fittings etc.

Afghanistan, much like Iraq, has seen the extensive use of IED and VBIED attacks against patrolling military units in rural areas and against convoys in urban environments. IED use is expanding and borrowed heavily from the Iraqi battlefied. In Afghanistan homemade mines are a very successful killer. The British were affected heavily by IED's because of their common use of the lightly armored snatch land rover vehicles. In 2009, IED's contributed to around 60 percent of all coalition troop deaths in Afghanistan. This is because the Taliban and Al-Qaeda affiliated groups are using Anti-Armor IED's (AAIED's) which are also described as Explosively Formed Projectiles (EFP). AAIED's are built in such a way that when detonated, the weapon will penetrate the enemies' vehicle killing all the occupants.

In '*Operation Moshtarak*', the third Afghan surge (February 2010), the Taliban had prepared for the coalition surge by extensively mining Helmand province, stocking up on ammunition and preparing defenses in town and cities. IED's are strategically placed. Prominent routes into urban areas, such as Marjah, were littered with mines. This slowed the progression of advancing forces because of the long and slow search and disposal operation which, has to take place to clear the area of mines. This area is around 200km$_2$, so understandably

IED incidents in Afghanistan, July 2008* vs. July 2009

*Exact figure not available for July 2008; data are based on an estimate

Data Source: The Associated Press/JIEDDO
Graph: Human Security Report Project 2009

this process took a long time. The clearing up process, could have been quicker, but the mission priority was to ensure civilian safety, and then to rid the area of the Taliban.
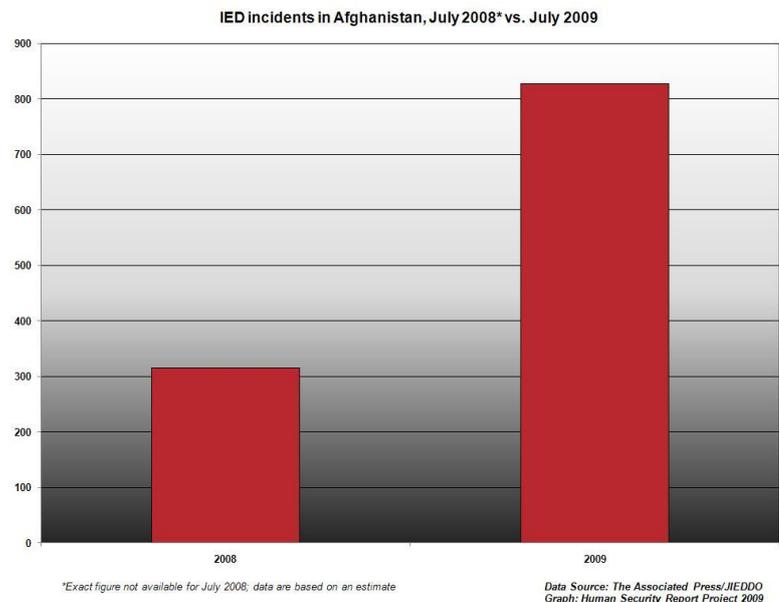
Within urban area's IED's have also been found in innovative places such as walls and hanging from trees. The increasing use of IED's is because of the simplicity of the technology and its effectiveness. The repeated use of IED's and mines is also beginning to take a toll on the morale of coalition troops, especially when you considering them to be the main cause of death to coalition troops.

A next-generation IED now exists, called 'Omar,' after Mullah Omar its apparent inventor. The devices are undetectable. They possess no metallic parts, often being made out of wood, and the explosives are being replaced using ammonium nitrate instead of old artillery shells. This has also made the devices extremely inexpensive to manufacture with a price of $85-100 dollars.

Clearly, the aim of IED's and VBIED's is to cut, maim and shred their targets, with the use of shrapnel; something which is adapted in suicide bombings. Tactics in modern times are looking to decimate the body through physical means, whereas in ancient and classical times chemical and biological means were often sought. This is easily shown through ancient hunting techniques. The use of natural poison, often covered arrows and spears, often finished of an enemy if the damage from the attack didn't kill the subject. Curare was the most common natural poison used. The question becomes when will chemicals be employed again.

Suicide Bombings

Suicide bombings or person borne IED (PBIED), grab the headlines because of the apparent brutality. Often committed by the drive of religious conviction and revenge, suicide bombings have seen a recent restoration because of the minimal cost and high casualty numbers incurred. Within modern times, the LTTE were amongst the first groups within the area of

examination to popularize suicide bombing. The LTTE used suicide bombing as an effective tactic in their fight against the Sri Lankan government. Within the LTTE, it was their 'Black Tiger' unit which performed suicide attacks. Estimates of up to 200 attacks since 1987 are reported to have been the work of the LTTE. This makes the LTTE responsible for over half the number of suicide attacks performed from 1980-2000. Their most profile victims were, Rajiv Ghandhi (May 21, 1991), the former President of India and the former President of Sri Lanka, Ranasinghe Premadasa (May 1, 1993).

In Chechnya, separatists often employed suicide bombings within their arsenal of TTPs. This occurred mainly in their hostage taking episodes. These hostage incidents are what has made the Chechen separatists infamous. Three major attacks by Chechen separatists stand out, and in all of them, the hostage takers were equipped with suicide vests, ready to detonate if the situation required.

In June 1995 Chechen separatists' took control of a hospital in the city of Budyonnovsk, holding the entire facility hostage. The Separatists remained undetected by entering as part of a military convoy, and stormed a government building before retreating to the city's hospital where they held it hostage before a negotiation was arranged. A ceasefire on the first Chechen war was a demand. Secondly in October 2002, Chechen separatists took siege of the Moscow Dubrovka theatre (Nord-Ost) for a number of days before it was raided and stormed leaving most of the hostages dead by Russian forces pumping gas into the theater. The third incident occurred in September 2004 where Chechen separatists' held a school in Beslan. On the first day of the new school year, over 1,000 hostages were held in the school. Russian forces stormed the school after a fire started allowing some hostages to escape. This provoked the Chechens to start firing upon the hostages, leaving the Russian forces little choice but to engage with the separatists.

The hostage incidents targeted primarily civilian targets and with high casualty numbers. The *Shahidka* are also a deliberate tactic, but also form out of the culture, where the widow takes responsibility after the death of her husband. They are used of course in Lebanon and in Palestine but are rare. There were also two aircraft explosions linked to the Chechen Islambouli Brigade in 2004 killing hundreds.

Again, two *Shahidka* were the perpetrators. On the March 29, 2010, Moscow's Metro was bombed again by two *Shahidka*. Firstly the *Lubyanka* station was attacked. Lubyanka Station was deliberately attacked as it lies directly underneath the Federal Security Service (FSB) headquarters. The second station to be attacked was the Park Kultury Station. The apparent 'Emir of the Caucasus Emiarte', Dokka Umarov, declared responsibility for the two attacks, claiming it as retaliation for the apparent attack on innocent civilians by FSB agents in the village of Arshty, on February 11, 2010. The two suicide bombers were named as Dzhanet Abdullayeva and Maryam Sharipova. Both were shown to be widows of separatist fighters.

In Iraq, suicide bombing is also a prominent tactic among terrorist groups. In Iraq, thousands have been killed as a result of suicide attacks. The targets were often civilians. Suicide bombings used mainly in the civil war between different religious groups in their bid for power. Also, suicide bombing was heavily employed, often in conjunction with IED's and VBIED's. Suicide attacks are more common in VBIED attacks, when targeting government or military targets. Since the 2010 Iraqi Elections, attacks on government and military targets is increasing.   Attacks are also increasingly become more part of the sectarian conflict. For example, February 1st saw a female suicide bomber kill at least 41 and wound over 100 pilgrims on a visit to the Shi'a shrine of Karbala.

Afghanistan is much like Iraq in the way that terrorism is fought in the urban environment. Both rely more on IED and VBIED's but are not hesitant to resort to suicide attacks. Suicide attacks, performed with the infamous suicide belt are only used less because of the limited effect in relation to that of a VBIED. Suicide attacks are used more in assassinations with the case of the Jordanian triple agent which detonated a bomb killing a number of CIA operatives and security guards. The damage is limited, but the weapon more portable. It is easier to smuggle the weapon than through a vehicle, even having the bomb inside a body in order to detonate it. This is shown in the attempted assassination of Saudi Arabian Interior Minister Prince Muhammad bin Nayef in August 2009.[4] Afghani and Pakistani sponsored groups have also committed suicide attacks in Pakistan and India. Indians, recently, are the most common target of suicide attacks in Afghanistan and Pakistan.

Houthi terrorists in Yemen are reported to have performed suicide attacks over the length of their conflict. Attacks by youth members of the Houthi attacked government buildings, and other federal buildings. One such attack saw a 15 year old Houthi boy blow himself up at a government complex and post office in Sa'ada, in July 2008. AQAP does also commit suicide attacks within Yemen, with the most recent attack to date, being the attempted assassination of the British Ambassador to Yemen on April 26, 2010. Attacks on foreign tourists have occurred with harassments occurring on large groups, and normally in rural areas.

Harassment and Ambushes

Most terrorist groups employ guerrilla tactics because of the power imbalance between them and their adversary which is normally a government with a far stronger military force. Harassment and ambushes are a good way to pick off government forces and civilian populations without exposing themselves. The environment is often exploited in order to gain a critical advantage.

The LTTE often ambushed and harassed Sri Lankan troops.   Small Arms Fire (SAF) was often employed in small ambushes as well as the heavier equipment that the LTTE possessed.   This included artillery and even the use of aerial bombings. Mortar attacks and sniper fire also helped to pin down the Sri Lankan armed forces. The LTTE often attacked Sri Lankan forces in waves, and this

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[4] This was performed by Abdullah Hassan Al Aseery, who had smuggled the explosives inside his body through his rectum, but explosives were also rumored to have been sown into his underwear so the exact delivery is not clear. The "underwear" delivery system was used again on the Christmas day failed. Anwar Al-Awlaki is the apparent mastermind who has links to a number of recent terrorist attacks, including the Christmas day bomb, the Fort Hood shooter and other jihadi violence.

proved to be hugely successful. Once the enemy was swarmed, suicide bombers would engage the target, causing panic amongst the ranks of the Sri-Lankan armed forces.

In Chechnya, separatists employed the tactics of mountain warfare, something which they have mastered.   Tactics employed in mountain warfare are heavily attributed to the success of the Chechen separatists. From the Chechen clans, each were represented by cell or band, formations, (*bandformirovaniya)* of men on a daily basis (15-25 men). Indeed, the small Chechen cells were well equipped with weapons that posed serious danger to the Russians.   Not only did they hold helicopters at risk with shoulder-mounted Surface-to-Air Missiles (SAMs), they also gave their small units great mobility by deploying each in a small truck or passenger car. Their particular advantages seemed to lie in their ability to swarm small units to any landing zone that the Russians might choose, and to "blind" the Russians by striking at the information-rich target provided by their forward air controllers. Thus, the Chechens had both an ability to knock down Russian helicopters, and an ability to swarm their combat teams to whatever landing zone the Russians alit upon, bringing them quickly under machine gun, sniper, and RPG fire.   Closely inter-netted communications played a critical role in Chechen reaction operations in the mountains. Their mobile air defense weapons were controlled by radio and changed positions constantly, hampering the Russians' ability to detect and destroy them. The Chechen forces also became adept at luring Russian air assets as they had done with Russian tanks in Grozny into specially prepared "kill zones."

Another tactic employed by the Chechens was the ability they had to retreat to 'safe zones', which were outside of the combat arena where they could rest and re-supply. For example, the Chechens moved to the Pankiyskii Gorge area of Georgia. This tactic was learnt from *Mujahideen* training camps in Afghanistan. This tactic is also employed by the Taliban and Al-Qaeda in current day Afghanistan where they use the porous border between Afghanistan and Pakistan to their advantage. This cycle is important to understand and to disrupt regardless of international borders.

In Iraq, ambushes and harassments often occurred in urban environments. SAF attacks occurred mostly in Iraq under the occupation and in Close Quarter (CQ) environments. SAF was limited to patrols and convoys. These attacks were often planned and looked to expose coalition troops. Harassment on patrols and convoys was also common, normally with very small firing squads and were always in urban areas, where it was easy to escape blending in with the civilian population. The tactic of human shielding was used to great effect, as these attacks often occurred in urban areas, where they could blend in with the civilian population to avoid casualties. Relentless attacks by terrorists also came in the form of RPG attacks. Again like SAF, RPG attacks were often in close quarter situations and attacked buildings, bases, patrols and convoys. Vehicles were however preferred targets to buildings. These attacks kept fear installed in coalition forces, reinforcing that it wasn't safe anywhere in Iraq. RPG attacks were often hastily planned and in frequent conjunction with Anti Iraq Forces (AIF). AIF often ambushed their targets, using SAF, RPGs and mortars in their attacks. AIF forces were relatively co-ordinated and organized. They targeted combat patrols and intended to inflict maximum damage. AIF did also use mines and IED's in the run up to their attacks, often as an initiator to the attacks. A number of different types of equipment were used; IED's, AK-47's, RPGs, light machine guns and mortars.

Non military targets have seen themselves repeatedly as targets. This is a main feature of the Iraqi conflict arena because of the sectarian element. Attacks have often been concentrated on rival ethnic and religious groups, all with the aim of destabilizing the government and keeping the country in a state of chaos. Since the March 7th 2010 Iraqi elections, a series of attacks have occurred, with sectarian and official government officials (and their families) targets. One clear example is the murder of 25 members of the same extended family in the village of Hawr Rajab. All of the members had their throats slit. All of the men killed were members of the Iraqi Security Forces. One main advantage AIF had when attacking government and official targets was their infiltration within these departments. AIF could be easily hidden within society and never picked up. This would have given them access to any information they would like, including the names and address of extended family members.

A tactic used in Chechnya, and borrowed by Islamic groups in Iraq, is the practice of decapitation. This practice has both psychological and religious significance. Foreign hostages were often the victims of decapitation, often been labelled as infidels or *Kuffar*. These decapitations were often recorded and posted on the internet and distributed to news agencies. Islamic terrorists believe they have religious justification for these actions from *Sura* 47:3, which states;

"When you encounter the unbelievers on the battlefield, strike off their heads until you have crushed them completely; then bind the prisoners tightly."[5]

Decapitation has a long history within Islamic chronology, from the time of the Holy Prophet (PBUH) through to modern day sectarian conflict in Iraq. It is this religious context, as well as the psychological implications and effects which have kept decapitations as a tactic for a number of groups. The act of decapitation is extremely brutal and violent, especially with the tools which are most commonly used e.g. machetes and serrated knives. They tend not to be very sharp, and prolong the suffering of the victim. The most important feature of these actions is the recording and propaganda taken from them. The deaths of hundreds have been recorded and are relatively easy to access. The repeated image of a foreign worker being dragged away pleading for his life, while his throat is severed separating his head from his body. This sends a frightening message to viewers, and provides the news agency with material to blast out. There is a chilling move of terrorist groups using suicide bombings on their propaganda to the recording of decapitations, as the western media seems to be more affected by these actions. A famous example is that of Kim Sun II in Iraq. He was seen in the video released by Iraqi terrorists pleading for his life, and his headless body was found by the side of the road in June 2004.

Elsewhere, in the AFPAK arena, guerrilla and mountain warfare TTPs are what coalition troops are most commonly facing. The multi-wing Taliban group ambush, raid and harass military units in both rural areas and densely populated urban civilian areas. Convoys, defensive outposts and bunkers are normally attacked, either by sniper fire or by mortar attacks. Attacks are normally in heavy concentrations, hours and days often separating attacks. Throughout the duration of the conflict within the AFPAK arena, the bombing campaign is somewhat continuous. This is meant to keep pressure on the occupying force by highlighting to the public that they can't keep the country safe

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[5] As cited in http://www.meforum.org/713/beheading-in-the-name-of-islam.

from the terrorists, much like in Iraq. In order to maintain a sense of insecurity the Taliban often attack voters, and bomb polling offices, and assaults rise dramatically around elections. Harassments often occur with the assistance of IED's in order to inflame the situation and to confuse the enemy, making them feel surrounded. Sniper fire and mortar attacks are also commonly used in attacks, again aiding the attackers and promoting their apparent strength. Attacks normally happen on security outposts, where coalition troop population are low, and mainly in rural areas where backup takes a long time. These locations also see a number of raids, with the agenda of freeing prisoners or seizing weapons. RPG's are more common use in use, especially in company size attacks. Surface to air attacks have been limited, and haven't been as effective as under Soviet occupation.

The Taliban/Al Qaeda groups employ mountain warfare tactics and like the Chechens, use an unmanned and ungovernable border to their advantage. They are able to prolong the conflict by retreating to neighboring Pakistan where they are able to receive further support and are able to go about their own business in the Federally Administered Tribal Areas (FATA). This tactic was employed by the Chechen separatists who travelled to neighboring Caucasus states, in a bid to regroup and resupply. The Inter-Services Intelligence (ISI) is one such department which is reported to aid, the Taliban and other groups within Pakistan, to attack Indian assets and other foreign entities.

Assisted groups such as LeT, in neighboring Pakistan have flourished from the porous borders which separate the two groups. Apparently, they are receiving training from both, the Taliban and the Pakistani ISI. They are using this training in their attacks on Indian targets with the Mumbai attacks being the case in example.

The TTPs used by the Mumbai attackers shows clear and visible traits borrowed from other related groups. On November 26, 2008 at least ten militants from *Lashkar e Tabia* entered India by boat. Militants left the port of Karachi and entered Mumbai on a rubber dingy and proceeded to take control of the Taj Mahal hotel and the Oberoi Trident hotel. These two locations were laid to siege for three days. Elsewhere in the city a number of explosions and assaults also occurred. The Chhatrapati Shivaji Terminal was assaulted by two gunman who proceeded to a number of other locations, including a hospital and police station. One was killed and the other, was Ajaml Kasab, the lone survivor of the attacks.   Nariman House which is a Jewish center as well as a number of taxi's were attacked. Through Kasab's confessions much of the information has been put together. It is widely assumed that these targets were selected because the Indian counter terrorism units weren't trained to protect or retake these properties. The duration of the sieges, plus the specific targeting, highlights this point.

Firstly the Chechen tactics of bold hostage taking, and heavily assaulting targets, is clearly borrowed. Most worryingly, this theme shows a certain degree of success in the terror it causes assaulting a series of targets, across the city, and taking large amount of hostages. If terrorist groups such as those to which the Mumbai attackers were part of, are prepared to use this in a large urban area, and to good effect, it is only a matter of time before this tactic is used in Europe, the U.S. or even the Gulf states. The operational tactics are in fact quite simple, with the equipment relatively inexpensive, and easily available. Secondly, the co-ordination and systematic approach to the

attacks spread around a city, sending fear on a large scale. This is more similar to tactics in Iraq and makes the civilian population feel like there is nowhere safe. It also prevents the civil authorities from being able to fully assess the situation due to confusion. Thirdly the violence used is similar to both the Chechen separatists and the Tamil Tigers. Grenades, IED's and gunfire were all present in the Mumbai attacks. The Mumbai attacks can easily be compared to the massacres performed by the LTTE and the hostage taking by the Chechen separatists. Public spaces and national landmarks are easy targets to which more and more terrorists are looking to attack. It is also not the first time transport hubs have been attacked; in fact it is becoming common for attacks to happen in places such as train stations and mass transit. This was seen in Europe already with Madrid and London and is a rising trend.

Meanwhile in Yemen the Houthi's embraced mountain warfare tactics, something which is vital to any future success they may be seeking. Tactics associated with mountain warfare give a key advantage, especially when performed in largely asymmetrical warfare against conventional forces. This fact gives the Houthi's greater strength as they are able to move with apparent ease in an environment which they are familiar with, and which the enemy is less known about. The use of cave warfare, as used in the AFPAK arena is also employed by the Houthi's and gives the Houthi's time to regroup, plan and rest.

Target Selection

The LTTE attacked targets of national significance to Sri Lanka, and were often indiscriminate of who was attacked at these sites. National symbols were attacked such as the Sri-Lankan President, Central Bank bombing as well as the Sri-Lankan world trade center. Most of the casualties from LTTE attacks were Sinhalese. The conflict between the LTTE and Sri-Lankan Armed Forces dragged the country into a long lasting "civil war." The civil war lasted over 20 years and was an on and off conflict. LTTE troops were mostly in contact with Sri Lankan Armed Forces, but did target civilians in major suicide attacks in urban areas.

In Chechnya, Russian troops were the focus in operations within the Caucasus Mountains. Here often Russian troops were ambushed and targeted. In the two Chechen wars to date, Russian and Chechen forces often engaged each other in urban areas, with Grozny the focus point. Again here, the Chechen separatists engaged Russian troops only. Chechens did however mark soft targets. Civilians were often the target on Russian soil. Innocent civilians were targeted, including the elderly and children, were used as hostages. Public outrage followed these events, and Beslan and the Moscow Theatre Siege the most famous not so much about Chechens but about how Russian forces dealt with the situation which aided the Chechen cause. Commercial airliners were also targeted by separatists' bringing a number of planes down in suicide missions. On a number of occasions Russian Special Forces (*Spetsnaz*) were to blame for the high number of civilian casualties.

In Iraq under the U.S. occupation, everyone was a target across the broad political and religious spectrum. Coalition forces were first targeted after the downfall of Saddam Hussein. Private security contractors also became targets, because they were also seen as occupiers working with coalition forces. There was a change within Iraq obviously, which was then a quest of power by many rival groups who were armed and willing to kill to seek superiority. A civil war ensued, with all

groups being the target of each other group. Later in the conflict the target set of the Iraqi insurgents went after Iraq's civilians and infrastructure; from politicians to civil servants to policeman. Internal security forces have been targeted and this is to keep the chaos within the country running for political gain. Consequently, the insurgents tried to keep morale down by attacking infrastructure and national establishments such as police academies. This was is in order to prove that the coalition forces can't keep the country safe and their occupation is a failure. They need to keep Iraq in a state of chaos to boost their ability to control regional and national agendas. But some of these groups also have tried very hard to keep themselves distanced from the political game in order to avoid pressure but by doing so they limit their own support base. This was a hard balancing act for many groups because by becoming a more formal organization, often described by their strategy, they are more susceptible to pressure from the government and the military.

In Afghanistan all foreign personnel have been targeted. Coalition forces, all around the country have been targeted as well as Non-Governmental Organisation (NGO) staff. This still is the case with the country being extremely dangerous to foreign personnel. Attacks on Indians in Afghanistan are becoming more and more common, something which is linked to the influence of the Pakistani ISI. There is no distinction between civilian and military personnel. With LeT, they have shown to attack soft targets, a tactic which is commonly associated to guerrilla tactics. Regarded as a smaller fighting force, LeT, don't have the manpower or technology to be able to confront the Indian authorities directly.

The Houthi's target both, civilian and military personnel. Civilian populations are targeted in assassination and suicide bombing whereas military targets tend in be engaged in the mountainous region near to the Saudi and Yemen border. Here the Houthi's use the environment, and surrounding population area's as cover. In situations like this, they are far superior.

Media

In relation to terrorist groups and the use and exploitation of the media there are real concerns. Conflict arises because there is the need to keep the public informed of events but in doing this one is giving coverage to groups which thrive from this attention and participate in acts in order to gain attention to further their aims. Terrorist organizations are able to distribute propaganda regardless if the multinational media corporations decide to report on their dealings. Many groups have access to supportive news outlets. Any media exposure is already a success for a terrorist or insurgent organization. These groups aim to achieve a society wide response and change in behaviour, towards their point of view.

In the recent past, the LTTE runs their own media arm, looking at drumming together support for their cause. This includes the International Broadcasting Channel (IBC) and the Tamil Television Network (TTV). The IBC operates from the Tamil Diaspora in London. (http://tamilvaanoli.blogspot.com/2007/10/international-broadcasting-coporation.html).The TTV operated from France and had global reach. It shut down in 2007.

The Chechens exploit whatever chance they had to be in the media, especially with their daring hostage situations. Their demands are filmed live and sent over live TV. There are a number of

propaganda pieces on the internet, with a view for sponsorship. Training videos and other propaganda are all easily accessed on the internet. One such website which is commonly used by Chechen separatists' and their affiliates is (http://www.kavkazcenter.com). Military and religious leaders often have videos linked to the website.

In Iraq, terrorists use the internet to gain an advantage. Attacks against coalition forces are often filmed and posted in Jihadi forums, and even popular sites such as youtube.com, will often feature videos about attacks. Propaganda is also posted with the intention of gaining support and funds from other countries. TTPs are often recorded in manuals and magazines which are hosted online and then proliferate throughout the Web. A website often used by Al-Qaeda affiliates is As Sahab. (http://www.sahab.net/home/). There is also (http://as-sahab.blog.com/) which links many posted documents, and provides easy links, in English, to documents and videos. Global Islamic Media Front is another website which posts similar information, often providing media footage of attacks by Al-Qaeda operatives fighting in Afghanistan. Terrorist groups in the AFPAK region also release very similar information. There is also ideological communications, with 'scholars' offering advice and support to support their strategic goals and justifying violence. There is also a fair amount of material that is printed and is posted to communities through magazines and newspapers.

Meanwhile the group, AQAP has a main media outlet called, '*Al Malahim*'. English translations are found easily amongst a number of terrorist watching websites, and intelligence companies. The expansion of activities has even led to 'Podcast' style weekly recordings for adherents to download and listen to. Similar information is shared amongst the official media of certain terrorist organizations. One prominent forum site is *Al Fallujah*. This has been used by a range of Jihadi's and its website is in Arabic and English:

http://www.alqimmah.net/index.php?s=44b1a1841fabcc958cebc41d98e0bc36-Arabic
http://www.alqimmah.net/forumdisplay.php?f=12 – English

There are a number of other website forums which host discussions between groups, sharing both ideology and practical knowledge with impressive banners and branding:

-*al-Faloja* (124.217.253.94/~faaall3s/vb/, alfaloja.biz/vb/, alfaloja.ws/vb/, faloja.org/vb/, alfaloja.info/vb/, alfaloja.org/vb/, faloja.info/vb/, al-faloja1.com/vb/, alfalojaweb.info/vb/, alfaloja.net/vb/)

-al-Shamukh (shmo5alislam.net/vb/, shamikh1.net/vb/, 124.217.252.247/~shamikh/vb/)

-at-Tahaddi (atahadi.com/vb/, 124.217.251.48/~atahadi/vb/)

-al-Hanein (hanein.info/vb/)

-al-Medad (almedad.com/vb/)

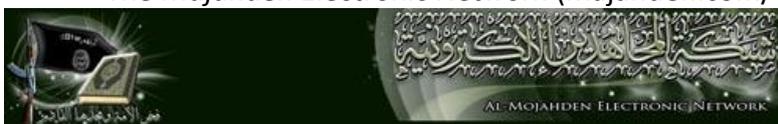*-Alqimmah-Golaha Ansaarta Mujaahidiinta* (alqimmah.net/)
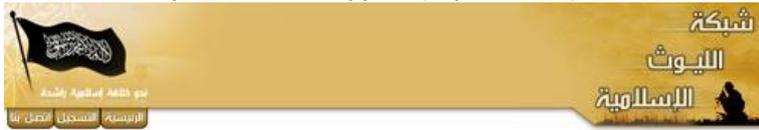

-al-Ma'ark (m3-f.com/forum/)

-as-Ansar (as-ansar.com/vb/, as-ansar.org/vb/, as-ansar.net/vb/, as-ansar.info/vb/, 124.217.247.149/vb/)

-The Majahden Electronic Network (majahden.com/vb/)

-Al-Luyuth al-Islamiyyah (leyoth.info)

Another website forum which has seen itself resurrected is *Tajdeed*. Many internet forums don't have very long lives and will often re-appear a number of years later. This is the case with *Tajdeed*.
http://www.tajdeed.org.uk/

Terrorists and their affiliates have expressed interest in mass social media such as Twitter, Facebook and Paltalk. Groups are showing an interest more in Twitter than any other social networking and this is becoming an important information warfare weapon.

Observations

Throughout the journey of each TTP, it is clear that certain lessons are learned. This is because either the TTP is effective, or the government forces have been unable to deal with the threat. Suicide bombing is still used but is replaced by the more mainstream IED and VBIED attacks which incur far more damage. Coalition forces have shown their inability to deal with this, and just as they are getting familiar with spotting the most common IED's, a next generation, metal free IED is now in operation posing a new, more serious threat.

Large conventional forces have also shown their difficulty at fighting highly mobile guerrilla forces, which are familiar to their own fighting conditions. There is a common belief that coalition forces can defeat the Taliban and related groups in Afghanistan as well as militias in Iraq, but it is support back in their diasporas and other social support nodes that also must be addressed. The longer occupation and insurgency persists, the less likely there will be support for the occupation.

Overall, clear links and similar TTPs are employed across the region over time. There are many similarities between Chechnya, Iraq and Afghanistan pulling in supporters and fighters from other countries facing a potential hostile threat. This is thanks by in large to the similar religious ideology and support that each group in these regions benefit from but also the need to learn from each other. In addition, there is in each country a significant foreign fighting force which has a similar background and training, often in Afghanistan and Pakistan. Training in camps is often where these skills are learnt and reinforced and then taken to a different arena and then further taught to new students.

All of the terrorist organizations included in this Special Report, operate in environments which, for centuries, have a history of conflict and successfully resisting invading armies. These environments are harsh and often protection and support for these small tribal based organizations is a necessity. These groups often do not need outside support, but welcome it and can rely on TTPs passed down by generations, which exploit the environment into their greatest strength, and when coupled with the relative inexperience of their adversary, are often and a unsurprising a tough test which needs to be learned by foreign and national militaries.

How Organizational Learning Influences TTP Transfer

Why do TTPs Evolve?

For terrorist organizations to continue to be effective they have to learn and evolve to not only win in the battlefield but also the hearts and minds. If a terrorist group lacks the ability to learn, its effectiveness in achieving its goals will largely be determined by chance. But when a terrorist group can learn—and learn well—it can act systematically to fulfil its needs, strengthen its capabilities, and advance its strategic agenda. The ability to learn allows a terrorist group to purposefully adapt to ever-evolving circumstances by:

- Developing, improving, and employing new weapons or tactics that can enable it to change its capabilities over time.
- Improving its members' skills in applying current weapons or tactics.
- Collecting and utilizing the intelligence information needed to mount operations effectively.
- Thwarting countermeasures and improve its chance of surviving attempts to destroy it.
- Preserving the capabilities it has developed even if some of its members are lost.

A terrorist group's ability to learn is therefore a primary determinant of the level of threat it poses, since learning is the route through which organizations can seek solutions to the problems that bound their freedom of action and limit their ability to pursue their goals in changing operational and security circumstances.

This doesn't however mean that 'older' tactics aren't as useful. Suicide bombings for example still attain the same results. From the Beirut barracks bombings to 9/11, and even to the constant attacks in Afghanistan and Iraq, suicide bombings still gain the desired effect. It is very hard to defend against suicide attacks without severe disruption to everyday life to ordinary civilians.

A key question is how do terrorist organizations gain and distribute information? Firstly, terrorist gain the *explicit knowledge* and information TTPs. This is achieved through textbooks, manuals and videos. All of this information is easily available through the internet. Across the internet, finding this information such as bomb making techniques, ambush tactics and other TTPs are found through a range of sources, from official government documents to terrorist training manuals. The internet has also been the host for a number of training video's which, again, are easily accessible and give an unprecedented insight. *Tactic knowledge* is also gained. This is normally taught through training camps or by help from other organizations. The training of terrorists by other groups and militaries is the most effective way of gaining information. This effort ranges from terrorist training camps funded by devout jihadi's to support groups in diaspora and in cyberspace. Examples such as the Iranian Revolutionary Guards Corps (IRGC) and LTTE training terrorists with a catalogue of TTPs and is particularly worrying, especially when one considers the ramifications of their learning curve.

Secondly the information gained is interpreted, understood and customized to the needs and ways of the terrorist organization. This is gained primarily through training. Without experience, these TTPs can't be practiced effectively and when operated in a real situation, they run the risk of failing to achieve their aims. Significantly, battlefields are laboratories for experimenting with new TTPs.

Case in example is the so-called "underwear bomber," Abdul Farouk Abdulmutallab, who failed to detonate the bomb in his underwear during Christmas Day 2009 in an airliner over Detroit. Cases such as this effort highlight the range terrorist groups can choose from with creativity and to spread panic even in failure. In addition, terrorists use drugs to amplify their physical ability during their operations. The most common drugs used are cocaine, heroin, and amphetamine. While under the influence of drugs, the terrorist is able to carry on even if he should be in severe pain, perform his actions without a thought to the consequences, and have no fear.

Thirdly the information is distributed and it is by these means by which the TTPs are transferred. Distribution is a strength to terrorist organizations. Through these means, information is distributed, and as long as the information is transmitted (even orally) the TTPs will continue to exist and the organizations will profit.   However, this fact is also the most vulnerable aspect to terrorist organizations. The information is distributed and is the easiest point of access for authorities to infiltrate. Also a tactic, in law enforcement and counter terrorism circles is that of misinformation and deception. This indirect approach is something which would be taken by the Psychological Operations (PSYOPS) unit and would look to interrupt the transfer of information by changing what is being transferred e.g. re-interprets bomb making diagrams, making them ineffective and create tactics which ultimately fail.
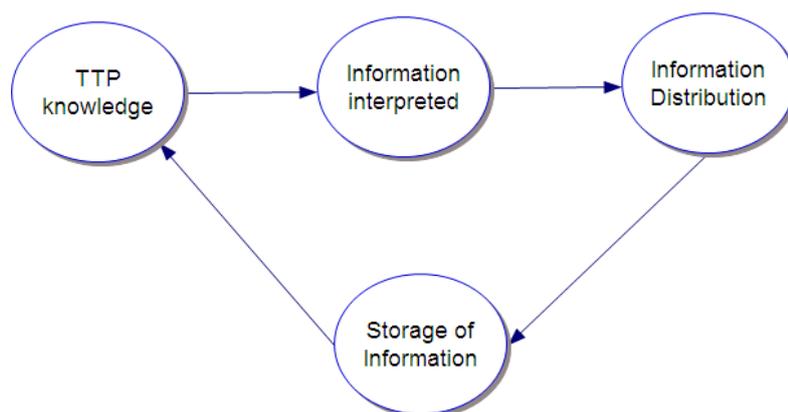
Lastly, the information is stored. Without this information which is then passed on and taught/learnt, the TTPs would disappear. Certain TTPs are stored as a hard copy or a soft copy, where inevitably they will always be available on the internet or within books. The organizational structure of terrorist groups can also determine knowledge being retained. Significantly, it is also within the culture of the terrorist group, through language, symbols and rituals that the information is kept.

The more a terrorist organization learns and adapts new TTPs, the further its capabilities define its ability to defeat security measures put in place by security forces. As explained earlier, a PSYOPS approach could deal with the transfer of information, but in a very indirect way. This wouldn't guarantee success, but is central to a long term plan of the plan to disable the transfer of information. Targeted attacks on a group's "learning systems" could degrade the group's ability to adapt over time. Potential strategies include the following:

• Limiting the terrorist group's access to critical knowledge resources.
• Identifying and preventing acquisition of novel technologies and weapons.
• Locating and targeting a terrorist group's "learning leadership"—those individuals critical to the ability to carry out organizational learning processes.
• Identifying and breaking critical connections among terrorist group members.
• Designing strategies for combating terrorism to maximize the "learning burden" placed on terrorist groups and limit their chances of adapting to get around it.

• Denying terrorist groups the safe haven needed for experimentation and innovation.

Conclusion

Each group brings their own expertise and experience which others can look to. All groups also bring a new angle to operations, something which is difficult to value as they are tricky to value within different environments. There are obvious transfers of information, be it informally or formally.

Non-conventional means to attack enemies is becoming a common occurrence. State powers are isolating themselves by their military supremacy in the field of Special Operations. This fact has led many groups and nations to resort to guerrilla tactics, or asymmetrical warfare. This seems to be the wise thing to do, since engaging in a war with a military superpower in conventional terms is nearly suicidal. There has however seen another change with a mix of both conventional and non-conventional warfare. This gradual progression has prompted the concept of *'Hybrid Warfare'*. '*Hybrid* Warfare' is described by Frank G. Hoffman as:

"Any adversary that simultaneously and adaptively employs a fused mix of conventional weapons, irregular tactics, terrorism and criminal behaviour in the battle space to obtain their political objectives"[6]

The mix of conventional and non-conventional tactics within the conflict arena isn't new. Enemies have always sought numerous ways from gaining an upper hand. Traditional superpowers have shown, in recent times, a disturbing inability to be able to fight in non-conventional wars effectively. Terrorist groups have a resilience that slowly eats away at the morale of their enemy. Most terrorist organisations tend to be small in number, and so are easy to hide. Their movements, tactics and techniques benefit from this and give them an upper hand. Because of this reality, terrorists can strike anywhere and without warning.   Comparatively a conventional force, which is normally accompanied by the media, loses the element of surprise and it is more at risk because the level of society wide exposure to the conflict is heightened.

TTPs have clearly evolved across the conflicts within the region. There is a learning process for both insurgents/terrorists and legitimate forces. A debate has arisen within the West about the evolution of the conventional fighting force.   Noticeable changes in the target set, especially as non-conventional wars have taken the forefront, helps to further this debate. The obvious possibility of conventional war, which inevitably gives the clear advantage to Western forces over most other countries, makes non-conventional tactics the best option when attacking western forces. T his highlights the need for further training and understanding of non-conventional tactics in order to prevent the enemy from building upon any success it may have.

The lessons learned in past experiences of other insurgencies and their TTP results in a force multiplier, especially with an inadequacy from coalition troops to be able to handle the insurgency adequately. Clearly the evolving TTP transfer is a challenge that has yet to be mitigated adequately.

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[6] F.G.Hoffman, "Hybrid vs. Compound War*," Armed Forces Journal*, October 2009, pp. 14-18, 44.

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