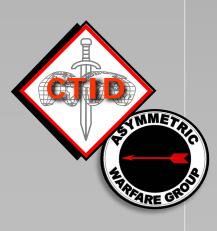
Threat Tactics Report: Islamic State of Iraq and the Levant







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Introduction

The Islamic State of Iraq and the Levant (ISIL) has risen to prominence as a danger to peace and a regional threat with global impact. This perception comes, in large measure, because of its successes in Syria and then a rapid takeover of northern Iraq. Its military victories are largely due to successful recruiting, intra-insurgent conflict, large cash reserves, and ineffective opponents. There is much to learn from how ISIL is fighting. The ready availability of recruits, many of whom are foreigners attracted to ISIL successes, and large amounts of money for payroll and purchasing war materiel are critical considerations, but it is also important to consider how ISIL is fighting on the ground.

This report is intended to identify key aspects of tactics and techniques used in ISIL's actions in Iraq and Syria. ISIL, unlike its predecessors and competitors, is a paramilitary insurgency. While the baseline techniques being used by ISIL do not differ significantly from those it has employed since its early days as an al-Qaeda affiliate in Iraq, its capabilities have increased in scope and complexity. Techniques making use of suicide vehicle-borne IEDS (SVBIED) and vehicle-borne IEDs (VBIED) have become more sophisticated. ISIL's use of information warfare (INFOWAR) has become more refined and pervasive with the adaptation of social media technology and increased technical competency among recruits. ISIL has targeted infrastructure such as dams, oil refineries, and power plants for use in population control and financing. ISIL has also demonstrated the ability to execute military tactics that require a level of competence and control uncommon in recent experience.

Executive Summary

- ISIL is an evolution of an insurgent group that has changed its name to reflect an increasing geographic vision.
- ISIL's advantage to date has been an increasingly large number of fighters and deep cash reserves to fund its operations. This provides greater capacity to organize, train, and equip like a military organization.
- ISIL executes military tactics to the best of its capability. This is a greater capability than that shown by previous insurgencies in the area, but still not best practice in a number of warfighting functions and key tasks.
- High value targets for ISIL have included such infrastructure as dams and oil refineries, which also contribute to its cash flow.
- Social media use has reached a new level of refinement as ISIL has capitalized on Western recruits' language skills and a new generation of technically savvy apprentices.

Cover photo: ISIS Flag, August 2014.



Section 1: Islamic State of Iraq and the Levant (ISIL)

The Islamic State (IS) began as a Jordanian-led extremist organization formed in 1999. It moved to Iraq in 2004 under the leadership of Abu Musab al Zarqawi. Zarqawi named the organization Jamaat al Tawhid wal Jihad or the "Group of One God and the Holy War." After pledging loyalty to al-Qaeda, Zarqawi initially renamed the organization Tanzim Qaedat al Jihad fi Bilad al Rafidayn or "al-Qaeda in Iraq." The Zarqawi-led organization created front groups, the longest surviving of which was the Islamic State in Iraq (ISI) under the leadership of Hamid Dawud Muhammad Khalil al-Zawi, more commonly known as Abu Omar al Baghdadi. In 2013 under al Baghdadi's leadership, AQI became the Islamic State of Iraq and the Levant (ISIL). ISIL briefly allied itself with al-Qaeda's Syrian affiliate al Nusra, but disagreements led to a split between the two groups.¹ In early 2014, the al-Qaeda central leadership rejected ISIL at which time it became an entity unto itself. After significant success in both Syria and Iraq, ISIL changed its name to the Islamic State, underscoring its determination to not be limited by geographic borders in restoring its vision of the caliphate.² Al Baghdadi then changed his name to Caliph Ibrahim and demanded the Muslim world recognize him as the leader of the world-wide Islamic caliphate.³

It is worth clarifying at this point some confusion evident in the media and other places over the naming designation of ISIL. The name ISIS is commonly interpreted as the Islamic State in Iraq and Syria. This is incorrect as ISIS should be interpreted as the Islamic State in Iraq and al Sham or, if fully translated, the Islamic State in Iraq and the Levant. ISIL is more appropriate as it does not mix two languages in the acronym. ISIL is the acronym used by both the president of the United States and the US State Department. Its self-proclaimed latest name, the Islamic State, is not currently used in US government communications, therefore, this report follows that pattern by using ISIL. Understanding this larger vision of a caliphate beyond just Iraq and Syria is important in understanding ISIL.⁴

Section 2: ISIL Tactics

Dispersed Attack

The following graphic illustrates some of the actions over several days that resulted in the capture of the city of Mosul by ISIL forces.

ISIL placed enabling forces in key areas of the city in the form of disruption forces. These forces facilitated the attack by providing reconnaissance information and intimidation of security forces and the civilian population. Support forces used by ISIL included mortar and rocket units that conducted attacks on command and control (C2) headquarters and cells that manipulated electricity output. Outside the limits of Mosul, ISIL assault forces seized the Qayyarah Airbase and the Sharqat Airport, limiting air support against the attack. North of Mosul, prisoners in the Bardosh Prison were released, providing recruits to join the fight and creating further confusion and diverting attention and resources away from the main action. Assault forces entered the city of Mosul and occupied key areas of the city—specifically the Mosul General Hospital, Ninewa Provincial Government building, Mosul Airport, Regional Army Headquarters, police stations, and private banks. Exploitation forces then entered the city and defeated remaining isolated enemy units.

Iraqi forces did not immediately capitulate, initially conducting clearing operations supported by air assets. ISIL exploitation forces contended with these until capture or retreat of the Iraqi security forces.



Within a matter of a few days, ISIL forces were able to take complete control of Mosul.⁵ Iraqi forces were completely defeated by the dispersed attack tactical offensive action, which is characterized by—

- Isolation of enemy combat units
- Disruption of effective C2 and sustainment
- Simultaneous attack by multiple action forces

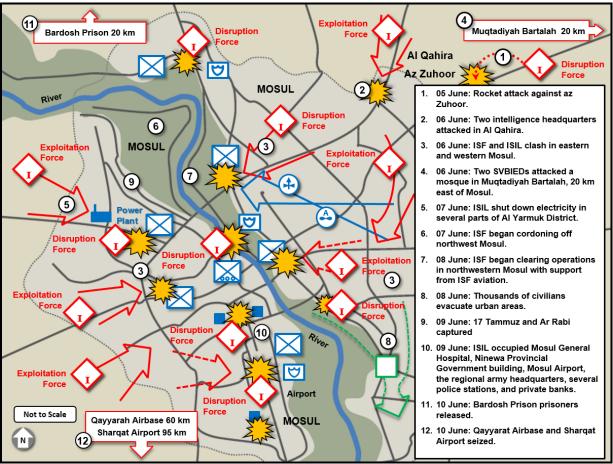


Figure 1. Dispersed attack on the City of Mosul



Area Defense

ISIL established an area defense of the Mosul Dam in August 2014. ISIL defenses integrated urban areas, their remaining civilian population, and manmade structures into complex battle positions. ISIL disruption forces ranged from small tactical cells to larger groups of insurgents appearing as paramilitary units with weapon systems captured from occupied military facilities. Armored vehicles and heavy weapons were integrated into the area defenses in simple and complex battle positions. ISIL INFOWAR focused on the message that enemy forces would be destroyed if they entered the conflict, and threatened an expansion of the conflict into their respective homelands.

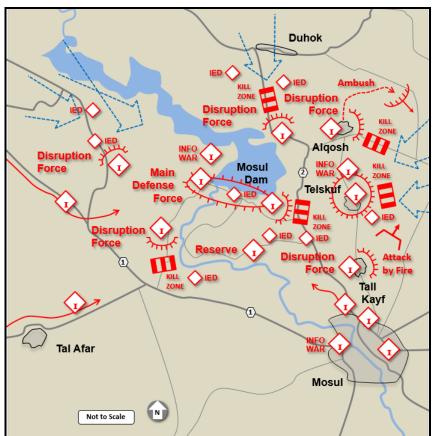


Figure 2. Area defense of the Mosul Dam

Emplacement of obstacles and numerous improvised explosive devices (IEDs) reinforced disruption operations intended to slow and stop state and coalition forces in kill zones. ISIL maintained a degree of mobile reaction in its ambushes, and small-scale counterattacks by transporting insurgents with small arms and rocket propelled grenades in commercial vehicles, using "technicals" mounting heavy-caliber weapons, and occasionally employing military armored vehicles and heavy-caliber weapons. The disruption forces and main defense forces utilized camouflage, cover, and concealment, and deception (C3D) to improve survivability. Battle positions were coordinated among positions to provide overlapping and concentrated fires into a kill zone or kill zones. Reserves were concealed or



camouflaged in complex battle positions or individual hide positions, but readily available to senior ISIL leaders in order to reinforce battle positions, respond to state or coalition attacks, and/or react to other offensive actions.

Section 3: ISIL Techniques

Command and Control

Abu Bakr al Baghdadi, the ISIL-appointed caliph, governs through a bureaucratic organization that includes close advisors and specialty, regional, and local councils.⁶ Al Baghdadi requires a theologicallybased pledge of loyalty and fealty.⁷ Until recent US airstrikes, ISIL had relatively unfettered movement capabilities along a corridor spanning northern Syria and Iraq. Command and control under these circumstances did not require the kinds of considerations now necessary with the US airstrikes targeting ISIL communication nodes. The use of couriers is likely to become an important part of communicating to ISIL's network of fighters.

ISIL's growth has come from its ability to coopt, dominate, or absorb competitor organizations. Some of these organizations may only be fair-weather friends and leave the coalition when the time is deemed right. There is a very real chance that ISIL leadership will lose control through splintering and infighting. With a varied and diverse demographic of foreign fighters, Sunni tribes, former Baathist leaders, etc., the challenge for ISIL will be controlling both the message and the fight.⁸

A key element of ISIL's command and control infrastructure is social media. During the attack on Mosul, for example, ISIL sent tens of thousands of tweets in a way that avoided the Twitter spam trigger.⁹ While social media companies are constantly identifying and deleting questionable accounts, it is easy to simply open a new account. A new, tech-savvy generation of jihadists opens up new means of communicating to vast audiences for recruiting, propaganda, and bureaucratic control.

Air Defense

As a result of ISIL's successful campaigns to overrun Syrian and Iraqi military installations and arms depots and its support from other international actors, it has developed a relatively robust tactical air

defense capability. Through the combination of systems procured from various Syrian and Iraqi military installations and through its international partners, it is assessed that ISIL has access to air defense systems such ZU-23s, FN-6, SA-7s, and SA-16s.¹⁰ These systems are considered very short-range with a maximum effective range of 6km and a maximum effective altitude of 4.5km.

ISIL will use these weapon systems in an effort to minimize opposition



Figure 3. <u>Iraqi Defense Ministry has confirmed ISIL has</u> <u>MANPADs</u>

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force air advantage. They will do so by employing the systems to target both air systems and ground systems. Also, because these systems are in limited supply and require trained personnel to operate, it is likely that they will be used to defend key urban areas and safe havens for ISIL forces.¹¹ To defend these areas, ISIL will likely use multiple systems and high volumes of fire.

Much like a regular force entitiy, ISIL is actively training its recruits on the operation of air defense systems. As of October 2014, ISIL has published an online guide describing the best techniques and procedures to use to down Apache attack helicopters. The guidance provided in the document calls on operators to seek high terrain and solid surfaces to fire the systems.¹² The high terrain is intended to provide better visibility and line of site of the target, while the solid surface is intended to reduce the appearance of dust following a launch.



Figure 4: <u>Truck-</u> mounted ZU-23

While ISIL's current air defense arsenal gives them a robust capability to destroy low-flying systems such as unmanned aerial vehicles (UAVs) and helicopters, it does not provide them any capability for targeting systems that fly at higher altitudes. This means that ISIL lacks the capability to destroy US aircraft currently conducting bombing campaigns in Iraq. For this reason, the Pentagon has released statements that say ISIL lacks an anti-aircraft capability.¹³

ISIL has claimed that it has successfully destroyed a number of helicopter systems throughout Iraq this year. For one incident in particular, ISIL released video proof of its capability. This incident occurred on 3 October 2014 near Baiji Iraq. In the first documented use of an FN-6 by ISIL, one of ISIL's fighters targeted an Iraqi Army Mi-35M helicopter



Figure 5. Images released by ISIL of an attack on an Iraqi helicopter

and successfully destroyed the helicopter, killing all the crew members. The helicopter was reportedly in the area conducting bombing missions on behalf of the Iraqi government.¹⁴ Days after this successful attack, ISIL, again using a man portable air defense system (MANPADS), shot down a second helicopter, a Bell 407, that was conducting a surveillance mission northeast of Baiji. This attack also resulted in the deaths of both crew members.

While the incidents discussed here provide evidence of ISIL's capability to destroy Iraqi helicopter systems, it is important to highlight that ISIL is actively training and procuring systems with the intent to counter US forces' operations in the region. Situation reports on ISIL's training and procurement efforts demonstrate this.



Anti-Armor

ISIL's anti-armor arsenal now contains a number of highly effective weapons that can be used against Iraqi and Syrian security forces. Anti-armor weapons with shape charges increase the likelihood of targeted armor vehicle crew casualties, but may not completely destroy the targeted vehicle during the engagement.¹⁵ However, due to Iraqi Security Forces' (ISF) challenges in maintaining larger armored vehicles like the M1, it is possible this platform has been denied future use.¹⁶ The most common systems in use right now are the Kornet, the M79 Osa Rocket Launcher, and the ubiquitous rocket-propelled grenade launcher. In addition, ISIL has also captured a number of Russian and US tanks which, while more difficult to maintain and larger targets, can be used to attack enemy convoys.¹⁷

Not surprisingly, these weapons are of choice use for the prosecution of offensive actions like assaults and ambushes. In July 2013, ISIL fighters ambushed an ISF convoy in the Khalidiyah area in Anbar Province. The convoy consisted of at least three M1A1 Abrams tanks and nine M113 armored personnel carriers. The attack occurred on a rural dirt road, initiated with IEDs and followed with anti-tank fire.¹⁸ The graphic below shows the missile hitting the tank. Even more recently, on 20 April 2014, ISF lost a formation with mixed armored vehicles including T-62 tanks.¹⁹



Figure 6. ISIL anti-tank missile fired at an M1 Abrams tank near Ramadi



ISIL also carefully considers the use of these weapon systems in the prosecution of the defensive actions, such as simple and complex battle positions, emplaced to protect personnel or equipment, restrict enemy freedom of movement, control terrain, or gain time. Surely this becomes even more complex when those positions are overlaid against complex terrain like urban centers. For instance, after taking Jalula on 11 August 2014, ISIL established well-armed battle positions to defend routes through canalized and obstacle-riddled terrain that included "T-55 or T-62 tanks, recoilless rifles, [and] shoulder-fired anti-tank weapons."²⁰ The combination of these systems, and considering their anti-armor weapon portability and multi-use character, presents numerous challenges while also demonstrating ISIL's tactical savvy.

Improvised Explosive Devices (IED)

Tunnel IEDs

ISIL primarily uses tunnel networks for communication and safe passage, particularly in Raqqa province where the Syrian Air Force uses its air superiority to conduct airstrikes. Tunnel IEDs are being widely used by members of the Islamic Front in the Aleppo area of Syria where it is attempting to compete with the Syrian military's superior capabilities.²¹ Aleppo, with urban infrastructure and embedded government security forces, lends itself to tunnel IED attacks. Given the right conditions, ISIL, already

skilled in constructing tunnels for safety and communication, can execute tunnel IED attacks. It is included here as a readily available means of attack.

Subterranean tunnels of any distance are both time- and labor-intensive. For this reason, their use, while not widespread, is significant. Insurgents in Syria, though no match for the regime's superior military strength in head-to-head engagements, are finding safety and destroying success in infrastructure and killing enemy personnel through the use of tunnels. Recent targets for insurgent attacks have been the Court of Justice, the Hanono army base, the Carlton Hotel, and the Chamber of Industry; each of these housed Syrian

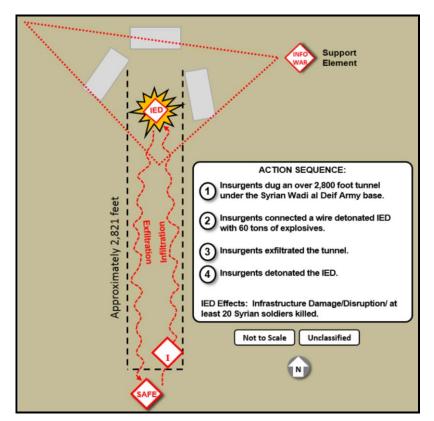


Figure 7. Wadi Deif attack

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security forces command headquarters. Tunnel construction requires only limited understanding of engineering concepts and utilizes readily-available tools such as a compass, a tool for measuring distance, a spade, a pick axe, and a cart to move dirt.

The attack depicted above was executed on 14 May 2014 by Suqur al-Sham in coordination with the Islamic Front. Insurgent forces in Syria had been trying to capture the Wadi Deif military base for at least a year. The base is a major launching point for Syrian army artillery attacks on the insurgents and protects the Syrian regime's supply route from Damascus to Aleppo. Insurgents used 60 metric tons of explosives and a hand-dug tunnel length of over 2,000 feet. In addition, the insurgents included an INFOWAR element to record the explosion.

Suicide Water-Borne IEDs

Iraq's rivers with multiple bends are potential avenues of approach for attacking bridges. Pontoon bridges, in particular, are easy targets, impacting lines of communication and movement, particularly in rural areas. This technique has been used in the Dhuluiya area north of Baghdad. On 6 September 2014, ISF successfully fired on and detonated an explosive-laden boat with a suicide bomber onboard before it reached its target. The boat was targeting a pontoon bridge south of the volatile city of Dhuluiya.²²

Armored IEDs

For a year beginning in August 2012, insurgents fighting the Syrian government conducted a siege and executed multiple attacks on the Menagh Airbase. On 5 August 2013, insurgents finally captured it. After a three-day long barrage of artillery, mortars, and machinegun fire, a Saudi suicide bomber drove a specially-outfitted BMP loaded with explosives and detonated it close to where the last remnants of the government troops were concentrated. ISIL claimed it had taken the lead in attacking the airfield, supported by other units from the Free Syrian Army (FSA) and other Islamist organizations. The airbase

was little more than an outpost with only about 75-100 defenders still remaining when it finally surrendered to the insurgent forces.

As part of the attack, the insurgents reinforced a BMP and equipped it as a VBIED. Workers welded metal piping to the sides of the BMP to both provide protection against RPGs and other weapons to ensure the BMP could reach its target and as a wall to ensure the containers holding the explosives stayed in place as the BMP moved.



Figure 8. <u>Armored IED</u>

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The following description corresponds to the figure below.

- 1. The invasion began with enabling elements disrupting the Syrian security forces with a three-day barrage by artillery, mortar, and heavy machinegun teams.
- 2. A Saudi suicide bomber drove the specially-prepared BMP VBIED close to the buildings where the government troops resided and detonated it as the initial assault element.
- 3. Other assault elements attacked along three axes towards the center and prevailed after a day of heavy fighting.²³

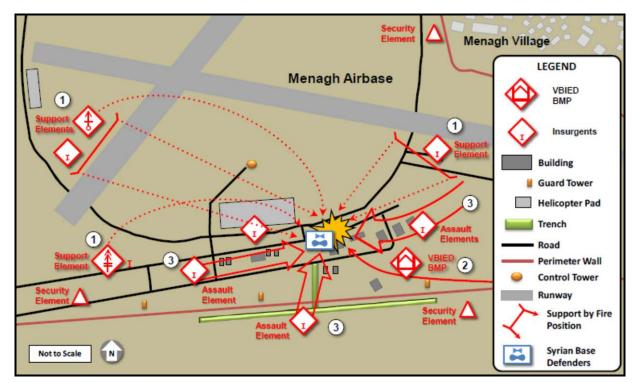


Figure 9. Menagh Airbase

Suicide Vehicle-Borne IEDs (SVBIEDs)

An integral part of the ISIL battle plan often includes utilization of SVBIEDs. These kinds of attacks, while not always definitive, when well-positioned can cause serious damage to and weaken fortified positions. The additional psychological effect can be equally damaging. As part of an initial assault, it can weaken entry gates and open the way for other assaulting units to enter fortified positions.

This was true of an attack on the Tabqa airbase, the last fortified position in the ISIL stronghold of Raqqa Province, Syria. The Tabqa base is key terrain for both ISIL and the Syrian regime. Both sides fought tenaciously with Syrian forces using air assets and ISIL using its suicide bombers and exploitation element to attempt breaches at the main gate. Around 10 August 2014, ISIL began attacking the base.



On 17 August, the FSA conducted over 20 air strikes in and around Tabqa and the city of Raqqa. On 18 August, FSA continued air strikes in Raqqa City, damaging the Raqqa city water plant. Anticipating sustained ISIL attacks, the Syrian regime sent reinforcements and large quantities of ammunition and food to the Tabqa airbase. In the preceding days, ISIL captured nearby villages from which to launch attacks.

The first main assault began on the night of 20 August. ISIL used rockets and mortars as a disrupting element. A breaching composed of two SVBIEDs attacked the main gate and were followed by an exploitation element of up to 200 fighters. This assault was stopped at the gate by Syrian defenders. The first SVBIED was detonated at a distance from the gate by either the Syrian guards or was caused by a premature detonation. The second SVBIED detonated close to the gate, but produced little damage. The exploitation element met with sufficient resistance from airbase defenders, and withdrew from the immediate area.

Fighting subsided during the morning of 21 August 2014 after which a second assault was launched. This second assault included a disrupting element of rockets and mortars and an action element with the mission of attacking and penetrating the front gate. Syrian special operation forces, recognizing the staging of ISIL fighters, anticipated their movement and planted mines in their attack axis. In addition, Syrian forces massed heavy indirect fires and air strikes against the ISIL combatants. The ISIL force retreated again. Fighting continued into the morning of 22 August 2014 when ISIL managed to capture a checkpoint outside the base. ISIL failed, however, to capture the base.

On the evening of 22 August 2014, ISIL received reinforcements and attempted to breach the entry to the base in the same manner it had begun the attack on the Tabqa airbase on 20 August. An SVBIED attempt to breach the gate failed again, and the exploitation element failed to penetrate the gate. Over the next two days, the FSA began evacuating the base. On 24 August 2014, ISIL finally breached the front gate to the Tabqa base. To this point, approximately 170 government forces were killed and 150 were

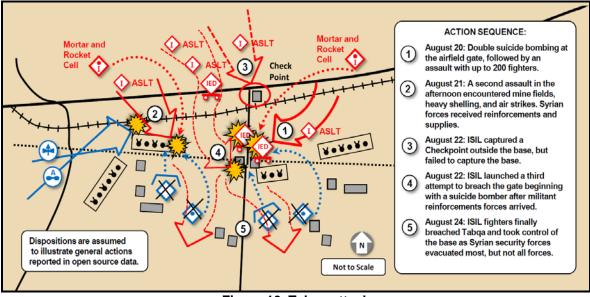


Figure 10. Tabqa attack



captured. Around 346 ISIL fighters were killed in the attacks. ISIL executed the Syrian defenders that were captured. Both ISIL and the FSA sides attempted to explain the events at Tabqa Airbase to their advantage. The Syrian regime painted the evacuation as a planned regrouping of forces. ISIL claimed victory and used it as further evidence of its growing strength.

Chemical Weapons

Recent revelations of chemical weapon caches in Iraq have raised the specter of ISIL's use of chemical weapons. In June 2014, ISIL gained access to hundreds of tons of potentially deadly poisons including mustard gas and sarin when it occupied the al Muthanna facility 60 miles north of Baghdad. In the 1980s and 1990s, the facility was a central location for Saddam's chemical weapon development efforts. Although transforming these chemicals to a military-grade weapon and delivery system is probably beyond the current capability of ISIL, chemicals could be used as part of IEDs.²⁴ As an example of what might occur in future actions confronting ISIL, reports indicate the 2 July 2014 deaths of three Kurdish fighters in Kobani, Syria that may have been caused by a chemical agent.²⁵

Deception

ISIL uses deception in two ways. First, ISIL has the ability to blend-in with the population. Air strikes have had the predictable result of causing ISIL fighters to shed military uniforms in favor of less identifiable clothes.²⁶ Sunni tribal support, either directly or passively, has facilitated this by allowing ISIL fighters to move freely and hide in some areas. With the increase in US airstrikes and the involvement of other nations, ISIL will inevitably continue to hide among the population and begin to look much more like an insurgency than a state army.

ISIL has put captured equipment to good use as well. In September 2014, Camp Saqlawiyah in Anbar Province had been under siege with supply and logistics routes controlled by ISIL. With food, medicine, water, and ammunition in short supply for the five battalions trapped in the camp, officers made desperate calls to commanders and even members of parliament for relief. When camp defenders saw uniformed Iraqis in military vehicles they assumed it was the promised relief and let them pass through the gate without proper security checks. After entering the camp, the first ISIL SVBIED exploded in the middle of the camp while two others detonated on the perimeter. The gate security tried to hold back the rest of the convoy, but was hit with more SVBIEDs. The camp was overrun with only a minority able to escape.²⁷

Snipers

ISIL-captured, high-powered precision rifles have allowed ISIL to utilize snipers in a variety of roles and situations. A withdrawal by defenders of the Syria-Turkey border town of Kobani was hampered by ISIL snipers in October 2014. Equipped with night vision equipment, ISIL snipers kept Kurdish fighters pinned down and unable to withdraw, even under cover of night.²⁸ In October 2014, Kurdish troops moved out of the town of Jalula to defend positions in Baquba against ISIL attacks. Six soldiers and a BBC reporter left behind were pinned down by snipers firing from multiple positions. The snipers created chaos, fear, and the perception of a larger attacking force.²⁹





Figure 11. ISIL Snipers attacking Kurdish Soldiers in Jalula

ISIL snipers have been observed at the height of a battle and not in marginal, clandestine attacks. One observer stated that during a heavy barrage of mortars and RPGs, ISIL snipers were positioned to fire on resisters and other targets.³⁰ Coupling heavy firepower, suicide bombers and snipers creates a formidable complex attack.

Social Media

The speed of ISIL's June 2014 takeover of northern Iraqi cities was matched only by the speed of its social media campaign. The seemingly incongruous match of a brutality rarely equaled by other terrorist organizations nuanced and and а sophisticated social media capability combine to allow ISIL to mold and nurture a multi-audience narrative of both intimidation and success. It has used a number of social media programs to push out a message of cruelty to its enemies and evidence of success to supporters and potential recruits. ISIL has shown an understanding of such platforms as Twitter and Facebook that has allowed it to



Figure 12. ISIL cartoon tweet



significantly increase its audience reach, dwarfing money and recruit competitors such as al Nusrah.

ISIL Media Organization

The ISIL media department, Al Hayat Media Center, under the authority of its official propaganda arm, the Al Itisam Establishment for Media Production, has seen recent success in recruiting Westerners in general and Americans specifically. The products being generated include English-language videos, pamphlets, and a magazine. Competent English speakers are creating the products which are free from spelling and grammatical errors generally common in such materials, and sprinkled with Arabic words and phrases. German materials are also finding their way into areas with German-speaking potential recruits.

Twitter

ISIL continues to use Twitter effectively to engage supporters and control the organization's narrative. Prior to entering Iraq, ISIL had already developed digital tactics in Syria. Upon entering Mosul, the social media campaign began by tweeting, among other things, a consistent ominous prediction, "#ISIS we are coming Baghdad."³¹ Subsequent tweets included a cartoon with trucks filled with militants rushing to Baghdad.³² ISIL Twitter accounts have also carried gruesome pictures and narratives of mass killings, enhancing its image as conqueror and discouraging resistance from those in its path.

ISIL has capitalized on Twitter features such as hashtags to expand its audience. A hashtag is a way to create a grouping of discussions in a mostly unmonitored ad hoc discussion forum. Any combination of characters preceded by a pound sign, or hashtag (see quote in previous paragraph as an example), allows anyone to sort all discussions with a particular hashtag into one place. If promoted by enough people, a hashtag will appear in Twitter's "Trending Topics." Hashtags are not registered or controlled by any one user or group of users and are not retired from public availability. A hashtag is a title arbitrarily assigned by the author that may or may not have anything to do with the message associated with the hashtag. ISIL uses faux hashtags in order to get its message to a larger audience. Capitalizing on the World Cup soccer fervor, ISIL used a number of hashtags associated with the event to gain a larger audience and improve its trending potential. As an example, ISIL has used hashtags associated with premier English soccer league clubs such as #MUFC, #WHUFC, #LFC, and #THFC.

ISIL has also doctored images to present a message. In one such post, ISIL or one of its supporters used the White House's hashtag message on behalf of the kidnapped Nigerian girls to its advantage. The original Obama Administration hashtag featured Michelle Obama with a sign that said "#Bring Back Our Girls." In a tweet, the picture was altered to say "BringBack Our Humvees," an obvious reference to equipment and vehicles seized by ISIL in its takeover of northern Iraqi cities.³³

For several weeks in early 2014, ISIL supporters were able to download a Twitter app from the Google Play Store called "The Dawn of Glad Tidings" or "Dawn" for short. The app was advertised as a way to receive updates on ISIL's efforts. Once a user downloaded the app, it would automatically post ISIL materials to each user's Twitter account, spacing the tweets out at a rate and in numbers that would not alert Twitter's anti-spam detectors. Each user essentially became a server for dissemination of ISIL propaganda materials. When ISIL stormed Mosul, the app posted 40,000 tweets in a single day. The app has since been removed from the Google Play Store after being available for several weeks.



Facebook

Facebook has long been used by terrorist and insurgent groups. ISIL is no different, using it to share information and garner support. Facebook and other social media platforms have policies requiring

these types of pages to be taken down; however, new accounts can be easily set up under different names. A new twist on the old approach is utilizing social media platforms such as Facebook to sell ISIL-branded products. For a reasonable price, a person can purchase shirts with the ISIL logo and phrases such as, "We are all ISIS" and "Fight for Freedom, Until the Last Drop of Blood."34 Other products such as tshirts, hoodies, and toys can be purchased. Many of the websites promoting these products come from Indonesia, a base of support for ISIL and other militant groups. One of these sites, Zirah Moslem, had over 9,000 likes before it was removed from Facebook. While it is not clear if ISIL is actually selling the merchandise, there is reason to believe it is receiving at least some support from the profits and publicity.

Figure 13. ISIL branded sales merchandise on Facebook

Videos

The ease with which events can be captured on video and disseminated via any number of digital media allows ISIL to distribute messages world-wide within minutes. Videos have been used for the purpose of recruiting disaffected Muslims in the West and sending messages designed to terrify, including graphic tweets of beheadings and mass killings. Whatever the purpose, ISIL has a willing network of people anxious to spread the visual images. News organizations, looking for images to tell stories, and people simply captivated by the images, also become participants in the distribution of the ISIL story.



Dams and Barrages

Water and water infrastructure are critical to Iraqis, providing mobility, irrigation, and needed drinking water. For this reason, ISIL has used and targeted water related infrastructure in order to shape the battlefield in its favor.



Figure 14. Dams and barrages in Iraq

Iraq depends on its intricate system of dams and barrages to control the flow of water from the Euphrates and Tigris rivers to ensure crops are irrigated and water flows throughout the country. The key difference between a dam and a barrage is the purpose for which it is created. A dam is built for water storage in a reservoir, raising the water level significantly. A barrage is used primarily for irrigation, raising the water only a few feet, and for diverting water. Barrages are usually built on flat



terrain across meandering rivers.³⁵ Barrages are often referred to as dams, but their definitions point to different reasons why they might be attacked.

The Mosul Dam, the largest in Iraq, was a key strategic target once ISIL captured the city of Mosul. Located about 50 kilometers north of Mosul, the dam controls the water and power supply to most of Iraq. Its generators can produce 1,010 megawatts of electricity. Behind the dam is over 12 billion cubic meters of water. Capturing the dam offers both a threat and a means to generate more cash through controlling a critical infrastructure.

The Mosul Dam, while ISIL's largest water infrastructure target, is not its first attempt to use water infrastructure to its advantage. The Fallujah Barrage is located about five kilometers south of Fallujah in the Nuaimiya area of Anbar Province. In February 2014, ISIL took control of the dam and fortified it with concrete blast walls and sand bags. The barrage allows ISIL to flood certain areas, impede Iraqi security force movement, and control the flow of water to other areas of Iraq. Reduction in water levels in the Euphrates River has also led to shortages of electricity in towns south of Baghdad. Government officials have warned about the negative effect on agriculture production if irrigation water is cut off.³⁶

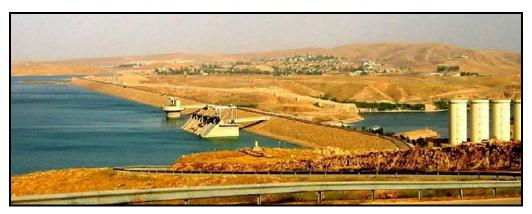


Figure 15. Mosul Dam

In April 2014, ISIL began using the Fallujah Barrage to shape the battle in its favor. The Ministry of Water Resource announced that ISIL gunmen closed eight of the ten gates of the Fallujah Barrage on the banks of the Euphrates River, effectively shutting off the supply of water into the southern Iraqi provinces.³⁷ Closing the gates also caused flooding upstream and forced the evacuation of families. By 10 April 2014, ISIL re-opened five of the barrage's gates, fearing the flooding in their own stronghold in Fallujah.³⁸

Rivers

Gunboats

Captured Iraqi gunboats are a useful tool for ISIL in attacking river cities. Dhuluiya, lying 75 kilometers north of Baghdad on the Tigris River, is key to ISIL's plan to capture Baghdad. It has changed hands numerous times over the recent past as ISIL has had some success with local Sunni tribal leaders who are suspicious of the Shia-led government in Baghdad.³⁹





Figure 16. Map of Dhuluiya

ISIL attacked the town of Dhuluiya on July 31, 2014 using a combination of gunboats and VBIEDS. The assault on Dhuluiya began at dawn and lasted for two hours before ISIL was pushed back by Iraqi security forces.⁴⁰ The gunships, acting as enabling elements, provided fixed Iraqi security elements while two VBIEDs and other assault elements attacked Iraqi security elements in the city.

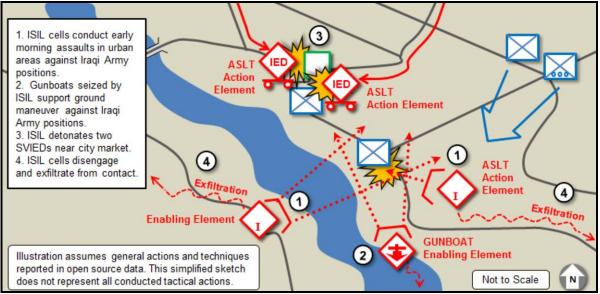


Figure 17. Dhuluiya gunboat attack



Unmanned Aerial Vehicles (UAV)

In the recent Raqqa Governorate fighting, ISIL added a new reconnaissance capability to its by employing fighting UAVs. A recent ISIL video, meant for propaganda, shows that it is capable of and interested in using technology to gain an advantage. The released video shows a reconnaissance flight over the Tabga airbase prior to a successful attack on that base.



Figure 18. UAV flight over Syrian airbase

The Phantom FC40 Quad Copter, believed to be used by ISIL, can be purchased commercially for about \$500. The UAV has an attached smart camera which supports 720p/30fps HD video. It can be controlled through an iOS or Android app running over a 2.4G Wi-Fi connection. While the video is useful, the capabilities of the quad copter do not allow it to see from long distances in real time. Even with its limitations, the video retrieved from the quad copter gave ISIL a view of the area it was attacking it would not otherwise have had.⁴¹



Figure 19. Phantom FC40 Quad Copter



Section 3: ISIL Weapons and Equipment

Successes in occupying Syrian and Iraqi military bases and facilities has given ISIL access to a large inventory of military weapons and equipment. The inventory includes tactical equipment, small arms and light weapons, light tactical and utility vehicles, heavy machine/anti-aircraft guns, artillery, and armored vehicles.⁴² This is alarming in the short term, however, it is yet to be seen if ISIL can properly maintain the equipment and weapons and obtain spare parts and ammunition. Training in proper use is also a critical unknown. Additionally, a tank may be intimidating in a city, but it also offers a larger target. These considerations do not completely eliminate the serious nature of an organization such as ISIL obtaining a large arsenal of sophisticated military weapons and equipment, but may minimize some of the danger over time.

The following table is representative but not inclusive of weapons and equipment captured or acquired by ISIL:⁴³

ISIL WEAPONS AND EQUIPMENT					
Armored Equipment	Artillery	AT Weapons	Anti-Air Systems		
T-55	M198 Howitzer	M79 Osa Rocket Launcher	ZU-23-2 Anti-Aircraft Gun		
T-72	Type 59-1 Field Gun	RPG-7	FIM-92 Stinger MANPADS		
T-62	SCUD Missile	RPG-29	SA-16 MANPADS		
HUMMWV		M79	SA-7 MANPADS		
MRAP		Kornet	FN-6 MANPADS		
		HJ-8			
		DShK Machine Gun			

Section 4: ISIL Organization

ISIL has grown from a small terrorist organization founded by the late Abu Musab al Zarqawi to an organization that gives the outward appearance of an organized state spanning northern Syria and Iraq. After declaring a new caliphate named the Islamic State, Abu Bakr al Baghdadi announced his new role as caliphate. Emerging captured documents are giving a clearer picture of ISIL's organization.

Governance

Al Baghdadi governs through a network of subordinate leaders. These leaders conduct much of the dayto-day management of affairs. A Leadership Council consists of trusted advisors with direct access to him and tasked with handling religious contentions and policies, executions, and other issues of doctrine and governance. A cabinet manages departments such as finance, recruitment and transport of fighters, prisoners, media, etc. ISIL also has an organized hierarchy of provincial and local leaders that handle the



heavy lifting on the ground. Once a city is taken over, ISIL leaders seek to keep services working while strictly and violently enforcing adherence to ISIL's vision of an Islamic state.⁴⁴ There is a definitive difference between delivering effective governance and public services and the life of a fighting jihadi. ISIL's ability to maintain a restrictive government, deliver needed services, and keep the peace will be tested over time.

Financing

ISIL is arguably the wealthiest terrorist organization, having developed revenues from a number of sources. Its capture of oil-rich areas have allowed ISIL to create steady revenue streams.⁴⁵ Revenue estimates of the dozen or so oil fields and refineries under its control in Iraq and Syria are as much as \$1 million to \$2 million a day. One of the first targets for occupation when ISIL invaded Mosul was banks where millions of dollars were taken. Coupled with confiscation of properties of internally displaced people leaving areas of occupation and extortion of businesses and individuals, ISIL is able to keep fairly large payrolls and services functioning.⁴⁶

Military

ISIL has gained a reputation as a winning organization. This has attracted many to the cause. Estimates of how many fighters ISIL now has under its command in Iraq and Syria range from 20,000 to 31,500. This is a surge from estimates of 10,000 less than a year ago. The number of foreigners fighting for ISIL is estimated at up to 15,000. Countries represented include Canada, United States, Britain, Sweden, Germany, France, Morocco, Tunisia, Libya, Egypt, Sudan, Somalia, Pakistan, Afghanistan, Kazakhstan, Russia, China, Indonesia, and Australia. The majority of the ISIL fighters are from Muslim countries, but there is a disturbing trend toward Western country representation.⁴⁷

Implications

ISIL fits the definition of a hybrid threat, effectively using tactics and techniques in a manner similar to other threat actors. It is better funded than many groups the US has faced recently and has attracted a large number of recruits to its cause. ISIL's success so far is due to its ability to control large numbers of fighters, many of whom are recruited foreigners, against ineffective opponents. It is yet to be determined if ISIL will be able to capitalize on captured weapons and equipment over a longer term, which will require training, maintenance, and repair parts. ISIL's techniques continue to include heavy use of IEDs in various forms, and a focus on suicide attacks which achieve psychological effects on those being attacked. More refined social media strategies capitalizing on readily available technology have given ISIL the means to advertise its successes to potential recruits worldwide and to threaten its enemies through graphic images.

Training should focus on tactics outlined in the Hybrid Threat doctrine described in the <u>TC 7-100 series</u>. These publications describe hybrid threats and summarize the manner in which such future threats may operationally organize to fight US forces. They also explain the strategy, operations, tactics, and organization of the Hybrid Threat that represents a composite of actual threat forces as an opposing force (OPFOR) for training exercises.



REAL-WORLD CONDITIONS APPLIED TO TRAINING

The <u>TC 7-100 Hybrid Threat series</u> and the <u>Decisive Action Training Environment (DATE)</u> provide training resources for applying real-world conditions to training. ISIL tactics and techniques are readily accessible through these resources as referenced throughout this report. ISIL uses the principles of offense and defense present in the TC 7-100 Hybrid Threat series when employing its fighters. The operational environment outlined in the DATE also provides an ISIL-inclusive framework.

ISIL's dispersed attack tactics are found in TC 7-100.2, Opposing Force Tactics.

3-74. Dispersed attack is the primary manner in which the OPFOR conducts offensive action when threatened by a superior enemy and/or when unable to mass or provide integrated C2 to an attack. This is not to say that the dispersed attack cannot or should not be used against peer forces, but as a rule integrated attack will more completely attain objectives in such situations. Dispersed attack relies on INFOWAR and dispersion of forces to permit the OPFOR to conduct tactical offensive actions while overmatched by precision standoff weapons and imagery and signals sensors. The dispersed attack is continuous and comes from multiple directions. It employs multiple means working together in a very interdependent way. The attack can be dispersed in time as well as space.

3-75. The primary objective of dispersed attack is to take advantage of a window of opportunity to bring enough combined arms force to bear to destroy the enemy's will and/or capability to continue fighting. To achieve this, the OPFOR does not necessarily have to destroy the entire enemy force, but often just destroy or degrade a key component of the enemy's combat system.⁴⁸

ISIL's area defense tactics are also found in TC 7-100.2.

4-85. In situations where the OPFOR must deny key areas (or the access to them) or where it is overmatched, it may conduct a tactical area defense. Area defense is designed to achieve a decision in one of two ways:

- By forcing the enemy's offensive operations to culminate before he can achieve his objectives.
- By denying the enemy his objectives while preserving combat power until decision can be achieved through strategic operations or operational mission accomplishment.

4-86. The area defense does not surrender the initiative to the attacking forces, but takes action to create windows of opportunity that permit forces to attack key components of the enemy's combat system and cause unacceptable casualties. Area defense can set the conditions for destroying a key enemy force. Extended windows of opportunity permit the action of maneuver forces to prevent destruction of key



positions and facilitate transition to a larger offensive action. INFOWAR is particularly important to the execution of the area defense. Deception is critical to the creation of complex battle positions, and effective perception management is vital to the creation of the windows of opportunity needed to execute maneuver and fires.⁴⁹

Care should be taken not to adopt a precise replication of ISIL tactics for all decisive action training events. Significant capability gaps exist that would leave a number of typical mission essential tasks unchallenged.

ISIL does not have the full capabilities of hybrid threat. ISIL is a capable *insurgent paramilitary* force that demonstrates a degree of tactical coordination and line of effort intent, but, as of this writing, lacks the collective ability for consistent combined arms maneuver and decisive operations. ISIL has demonstrated an "organized use of subversion and violence to seize, nullify, or challenge political control of a region" and employed "forces or groups distinct from the regular armed forces of any country, but resembling them in organization, equipment, training, or mission" (JP 1-02). However, gains in occupying critical infrastructure, terrain, and controlling local populations appear temporal based on the example of ISIL's inability to protect and retain control of the Mosul Dam. ISIL also has no association or affiliation with a regular military force as it conducts tactical actions in the trans-border Syria and Iraq region.

Significant gaps in ISIL combat power capabilities are most evident in an absence of integrated fires command and control, and the types of weapons systems to be coordinated in a focused combat power manner. Although ISIL social media displays armored vehicles, artillery pieces, and other associated equipment captured from state forces, there is not yet evidence of fully integrated cannon, gun, multiple rocket launcher, and surface-to-surface missile capability by ISIL. The presence of ISIL short-range air defense in MANPADS can be assumed but has not been reported in open-source documentation during the Mosul Dam occupation.

Use of an ISIL replication for a mission rehearsal exercise (MRX) developed for a unit deploying into contact with ISIL is precisely appropriate. For decisive action training, care must be taken to ensure all training objectives are addressed by challenging conditions. For training objectives not covered by a single actor's capabilities, whether ISIL or some other group, use of the best practice composite models developed for the TC 7-100 Hybrid Threat series is required.

Conditions in DATE and Doctrine

As the <u>DATE</u> and Hybrid Threat Opposing Force are composite models synergized from real-world actors and actions, ISIL's capabilities can be found throughout these products. The following table assists the exercise planner with the locations of key elements in these products of the actions and techniques described in this report.



Real-World Condition	Comparable Condition in DATE	Page(s) in <u>DATE</u>	Relevant Information in Threat Doctrine	Manual and Page(s)
Insurgents capture an airbase	South Atropian People's Army attacks Rimzi Airbase	DATE 2.1, 2B-2-8 DATE 2.1, 1-I-17	Offense operations	TC 7-100.2, Opposing Force Tactics, p 3-1
Insurgents use river gunboats to attack a city	South Atropian People's Army attacks a city on the Kura River	DATE 2.1, 2B-7-2 DATE 2.1, 1-I-17	Offense operations	TC 7-100.2, Opposing Force Tactics, p 3-1
Insurgents capture a chemical cache	Coalition of small anti-government groups	DATE 2.1, 2E-2-23 DATE 2.1, 1-I-20	Offense operations	<u>TC 7-100</u> , Hybrid Threat, p 3-1
Insurgents defend takeover of a dam	Arianian Freedom Movement defend an occupied dam against Arianian security forces in Ariana	DATE 2.1, 1-I-19 DATE 2.1, 1-I-16	Defense operations	TC 7-100.2, Opposing Force Tactics, p 4-1



Related Products

Follow these links to view related products:

- Menagh Airbase Siege: Menagh, Syria, Red Diamond (September 2013)
- ISIL Attack on the Tabqa Airbase, Red Diamond (September 2014)
- Wadi Deif Attack, Global IED Study (December 2014 [To be published])
- ISIL's Use of Social Media, Red Diamond (July 2014)
- Decisive Action Training Environment (DATE) 2.1 (February 2014)
- <u>TC 7-100 Series</u>

See also the <u>Red Diamond Newsletter</u>, which contains current articles on a variety of topics useful to both soldiers and civilians ranging from enemy TTP to the nature and analysis of various threat actors.

For detailed information on weapons and equipment, see the <u>Worldwide Equipment Guide</u>.

To see more products from TRISA-CTID, visit the Army Training Network (ATN) with CAC access: <u>https://atn.army.mil/dsp_template.aspx?dpID=377</u>

POCs

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