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Contents

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The Combating Terrorism Center is an independent educational and research institution based in the Department of Social Sciences at the United States Military Academy, West Point. The *CTC Sentinel* harnesses the Center's global network of scholars and practitioners to understand and confront contemporary threats posed by terrorism and other forms of political violence.

The Cult of the Offensive: The Islamic State on Defense

By Michael Knights and Alexandre Mello

An image from an Islamic State video, showing improvised rockets during an attack in April at Al-bu-Ayyuda in Anbar Province, Iraq

THE ISLAMIC STATE has been on the defensive in Iraq for more than eight months and it has lost practically every battle it has fought. After peaking in August 2014, its area of control has shrunk, slowly but steadily. The group's ability to control terrain has been dictated largely by the weakness of its opponents. When the Iraqi security forces (ISF) and the Kurdish Peshmerga have committed resources to an attack they have dislodged the Islamic State's defenses, particularly when Western airpower, intelligence, and planning have been a large part of the mix.

This paper will use case studies from recent battles in north-central Iraq[1] to argue that the Islamic State has a distinctive defensive operational style and that this style has many exploitable weaknesses as the coalition considers new offensives in Anbar province and Mosul. In many ways, the Islamic State's defensive style is reminiscent of the German military between 1944 and 1945:[2] At the tactical level they

1 This research draws on case studies from Iraq's northern provinces for a number of reasons. The authors have focused their six-month research program in this area due to the availability of good quality imagery and news reporting, particularly from behind Kurdish lines. This part of Iraq has witnessed the bulk of offensive actions against IS, both launched by the Kurds and by federal ISF and Hashd forces. Northern battles have also been well-supported by Western airpower and intelligence support, a factor that is increasingly relevant to the next stages of the conflict in Iraq and perhaps in Syria also. Detailed focus on southern battles like Jurf as-Sakr, Samarra and Dhuliyah might provide subtly different lessons.

2 One tactical treatise notes of the German army in the

are highly dangerous and can still win engagements, but at the operational level they lack strategic coherence and they display a chronic inability to defend terrain.

The Islamic State's Operational Style

Like all organizations the operational behavior of the Islamic State in Iraq is driven by its composition, structure, ideology, and leadership. As a number of studies argue,[3] the Islamic State seems to have been effectively led at the strategic level by some genuinely capable planners, but at the operational level there is seemingly much less opportunity for centralized control. Instead, the Islamic State group's military operations have become gradually more disjointed and localized in their scope and scale since the fall of Mosul.

A number of dissimilar ideologies and objectives seem to be pulling the Islamic State military operations in different directions. Within the leadership there are Salafi ideologues, former Baathist military officers of considerable skill, and hybrids of the two.[4] Front line soldiers are a mix of location-specific part-time fighters and Iraqi auxiliaries who have signed on with the Islamic State for an unknown period, uprooted Iraqis who may be willing to fight anywhere that the Islamic State raises its flag, and fully nomadic foreign fighters with varying levels of commitment to the Iraqi theater and specific Iraqi locations.[5] Well over half of the Islamic State's fighters appear under 30 years of age, though some are clearly considerably older.[6]

The different sources of fighters have created disparate outlooks for each operational Islamic State unit active in the Iraqi theater. Some may be highly committed to fighting in just one location, particularly when their involvement with the Islamic State is tied to local tribal and sectarian conflicts. For some locally focused affiliates, if the fight is lost in that specific area, the war is over. Many fighters will be fixated on their own experience of the jihad, their personal odyssey, and exploits in search of a reputation and military glory. Others will be much more seriously committed to the goals of the Islamic State's leadership: the defense of Caliphate territories and the imposition of religious structure in those territories for as long as is possible. In many cases there will be differences between the needs of the group and the preferences of individuals.

Then there are the practical issues that underlay military strength: experience, numbers, and equipment. The core Islamic State is still a very small military movement in Iraq. It is far too small to perpetually defend the territories it currently dominates.[7] They boast many skilled and charismatic small unit leaders,[8] but they are not a professional military institution by any measure. Their base of experienced fighters may be weakened by attrition rates even if foot soldiers may still be flooding to the jihad because leaders and specialists take time to develop and the war in Iraq is both intensifying and accelerating.[9]

Armaments are a problem too. The Islamic State has access to many different types of captured weapons,[10] but their arsenal is slowly degrading too thanks to ongoing airstrikes and other engagements.[11] They are ultimately

Second World War: "Defensive operations were originally envisaged as holding situations pending resumption of the offensive and laying great stress on immediate and violent counter-attacks." W.J.K Davies, *German Army Handbook 1939-1945* (London: Purnell, 1973). p. 57. This method achieved many tactical successes but was also costly, especially when enemy troops became used to predictable counter-attacks and prepared for them. German tactics in the First World War also showed this, with Paddy Griffith describing them as "an over-rigid and excessively expensive system." Commonwealth forces learned the "bite and hold" tactic—to seize ground cheaply in surprise attacks and then inflict heavy casualties on the German counter-attackers, a situation not unlike today's Kurdish/Western tactics on their frontlines in northern Iraq. Paddy Griffith, *Battle Tactics of the Western Front: The British Army's Art of the Attack 1916-1918* (New Haven: Yale University Press, 1994), pp. 32, 194.

3 See Richard Barret "The Islamic State," *The Soufan Group*, October 28, 2014; Hisham al-Hashimi and the Telegraph interactive team, "Revealed: the Islamic State 'cabinet'", *The Telegraph*, July 9, 2014; Hisham al-Hashimi "Inside the leadership of Islamic State: how the new 'caliphate' is run," *The Telegraph*, July 9 2014.

4 See Richard Barret "The Islamic State," *The Soufan Group*, pp. 18-21, 24-34, "The hidden hand behind the Islamic State militants? Saddam Hussein's." Liz Sly, *Washington Post,* April 4, 2015; "Iraqi Officer Takes Dark Turn to al Qaeda," Matt Bradley and Ali A. Nabhan, March 17, 2014. At least six of the Islamic State's upper-tier leadership cadres in early 2014 are known to have been high-ranking officers in the Saddam-era Iraqi Army, the Republican Guard, Directorate General of Military Intelligence, and air force intelligence.

5 The Islamic State draws from a range of sources for its manpower: foreign fighters, released prisoners who may it have resettled in their home areas, and existing insurgent group members who merged with Islamic State, some of whom have a very localized outlook and joined purely to gain advantages over local rivals. Michael Knights, personal interview, Islamic State expert Aymenn Al-Tamimi, November 19, 2014.

6 The authors' assessment of the age distribution among Islamic State fighters is based off a year-long survey of imagery and video footage derived from Islamic State's social media output.

7 See "CIA says IS numbers underestimated," *Al-Jazeera English*, September 12, 2014, and "How Many Fighters Does the Islamic State Really Have," Daveed Gartenstein-Ross, *War on the Rocks*, February 9 2015. The Islamic State has attempted to fast-forward its expansion from its insurgent core into a hybrid army by boosting recruitment and imposing conscription measures in areas like its stronghold of Hawijah district in Kirkuk province.

8 For example one of the Islamic State's most high-profile mid-tier commanders, Abu Umar ash-Shishani (Tarkhan Tayumurazovich Batirashvili), a 29-year old former Georgian Army sergeant from the Georgia's Pankisi Gorge, who initially fought in Syria as leader of Jaysh al-Mujahirin wal-Ansar, a group of hardened foreign fighters from Chechnya and the Caucasus region before pledging allegiance to the Islamic State in May 2013 and went on to command the 'northern sector' in Syria, the provinces of Aleppo, Idlib, and Latakia. See "Treasury Designates Twelve Foreign Terrorist Fighter Facilitators," U.S. Department of the Treasury, September 24, 2014.

9 The Islamic State forces in Iraq initially drew on leaders whose military experience went back thirty years or more (in terms of Baathist officers and some jihadists with Afghan experience), whilst even some younger commanders have extensive experience in combat within Iraq or Syria over the last half decade. At the time of writing it has only been ten months since the fall of Mosul but casualties have been steady. It is uncertain that combat skills can be learned fast enough to make up for operational attrition in leaders and specialists.

10 These include over a hundred T-55, T-69 and T-72 main battle tanks, dozens of M113 APCs, M117 armored security vehicles, hundreds of Humvees, trucks, 4WD pickup trucks, and several towed artillery pieces. For a comprehensive list see "Vehicles and equipment captured and operated by the Islamic State inside Syria," *Oryx Blog*, November 10, 2014, and "Vehicles and equipment captured, operated and destroyed by the Islamic State inside Iraq," *Oryx Blog*, November 22, 2014.

11 For an comprehensive, regularly updated list see "Operation Inherent Resolve: Targets Damaged/Destroyed," CENTCOM, April 8, 2015.

capped at being a confederation of fierce motorized war bands, most often undertaking tactical engagements at reinforced platoon strength.[12] The above factors—organizational, ideological, and logistical—have a strong influence on the Islamic State's defensive style of war.

Can the Islamic State Defend Terrain?

Since June 2014, the Islamic State has fought major defensive actions in at least 14 Iraqi locations: Ramadi, Mosul Dam, the Amerli district, Jalula-Saadiyah, Muqdadiyah, Rabiya, Jurf as-Sakr and northern Babil, the Samarra-Jallam-Udaim desert, Sinjar, Beyji, Makhmour, Aski Mosul, Kirkuk, and Tikrit.[13] The Islamic State has lost every time they faced a determined and well-resourced ISF or Peshmerga attack. In fact, when outnumbered the Islamic State frequently relinquishes terrain to suit its own operational needs and often signals an awareness that they will be forced from attacked areas in short order. Though the Islamic State frequently holds out until the last possible moment before withdrawing, they have a track record of draining their main forces from areas that are about to be attacked—for instance in Jalula and Jurf as-Sakr.[14] Due to a basic lack of military strength the Islamic State cannot mount an exclusionary perimeter defense if sufficient attackers come forward. The limiting factor on the speed of advance against the Islamic State in Iraq is gathering sufficient quantities of capable Iraqi forces to fill up the spaces.

An early example of preemptive withdrawal behind a screen of IEDs, booby-trapped buildings, and snipers was Jurf as-Sakr, the Sunni town overlooking the pilgrim route between Baghdad and Karbala, which was decisively cleared and occupied by Popular Mobilization Units (PMUs) in late October 2014.[15] The Islamic State's main forces likewise melted away when long-awaited Peshmerga and ISF offensives began in mid-November 2015 to liberate Jalula-Saadiyah,[16] the Islamic State-occupied twin towns by the Hamrin Dam. In a wide range of areas—from small towns like Suleiman Beg to Mosul city—the Islamic State seems to accelerate its destruction of religious, cultural, and administrative sites (and its withdrawal of the Islamic State families and economic equipment) when it feels that an attack is imminent.[17] In essence, the Islamic State seems to have a clear-headed assessment of its own limited defensive capabilities.

The Islamic State's Defensive Playbook

Though towns and cities are of both symbolic and strategic value, the Islamic State seems more focused on actively defending the rural zones in which urban areas are located. In many cases, the urban center may be the part of the defended zone allocated the smallest proportion of available Islamic State forces. The Islamic State has not shown a tendency to fight "last stand" defensive actions. Snipers, mobile shooter teams, and thick improvised minefields made of crude canister IEDs and explosive-filled houses are more than sufficient to slow, but not stop, an advancing force: populated areas are denied rather than actually defended.[18]

The rural belts surrounding the city are often more actively contested by the Islamic State and for longer. This strategy first appeared in the battle for Baghdad in 2006 and 2007, when the phrases "Baghdad belts"[19] and "commuter insurgency" summed up the pivotal role of the rural periphery to the urban battle. This strategy is still in play. In Ramadi, the Islamic State has been pursuing a commuter insurgency strategy[20] for more than a year, because the difficult task of securing the city's rural belts has not been adequately resourced.[21]

The same problem of nearby ungoverned sanctuaries afflicts all the areas the Islamic State group is still

12 The authors' review of Islamic State attacks since June 2014 suggest that a typical attack force comprises around 20–40 foot soldiers—historically the size of the average insurgent cell, including indirect-fire, IED-laying/triggering teams, RPG/ambush teams, etc.—plus three to five armored cars and unarmored utility vehicles, with a couple of heavy support weapons. When larger attacks are undertaken, it is usually coordinated, simultaneous but only loosely connected activity by these small war bands, not a larger unit action per se.

13 See the Institute for the Study of War (ISW)'s daily updated Iraq Situation Report blog for a daily coverage of events in Iraqi since summer 2014.

14 The ISF carried out 13 clearing sweeps of Jurf as-Sakhr between January 2014 and a final conclusive operation in October 2014. The Islamic State consistently chose to withdraw and re-infiltrate, with the area permanently cleared only when it was entirely depopulated and turned into a closed military zone. See "The Clearing Of Iraq's Jurf Al-Sakhr, Babil And Its Impact," Joel Wing, *Musings on Iraq*, January 15, 2015; and"Iraqi security forces and Kurds gain ground against Islamic State," Ahmed Rasheed and Isabel Coles, Reuters, October 25, 2014. The Islamic State held Jalula and Saadiyah for months, but then collapsed its defense in a few days during November 2014 with under a hundred casualties by most estimates. See ISW Iraq Situation Reports for November 22-23 and November 24, "Jalawla heavily mined, most homes booby trapped," *Rudaw*, November 25, 2014.

15 "Iraqi security forces and Kurds gain ground against Islamic State," Ahmed Rasheed and Isabel Coles, Reuters, October 25, 2014.

16 See ISW Iraq Situation Reports for November 22-23 and November 24, "Jalawla heavily mined, most homes booby trapped," *Rudaw*, November 25, 2014.

17 In only one week period at the end of March Islamic State demolished the 2nd Iraqi Army division headquarters at Camp Kindi, the Mosul Police Academy, Mosul Traffic Directorate, police stations, plus dozens of houses of ISF and Peshmerga members. See "The terrorist organization blew up the Traffic of Nineveh Directorate building in northern Mosul," *NINA*, March 30, 2015; "ISIL terrorists steal contents of Police Academy, detonate it in Mosul" *All Iraq News*, March 24, 2015; "Daash blow up the headquarters of army Second north of Mosul" *NINA*, March 21, 2015; "IS blew up three police stations north of Mosul" *NINA*, March 28, 2015. Islamic State demolitions are remarkably widespread and must consume a significant proportion of the time of members who might otherwise be undertaking military operations.

18 See "Operation to retake Tikrit from Islamic State stalled by heavy casualties, discord," Mitchell Prothero, *McClatchy*, March 20, 2015, for an example of Islamic State' defensive preparations encountered by the ISF during the operation to clear Tikrit. IS made use of huge numbers of IEDs, booby-trapped buildings and small sniper and suicide attacker cells to slow the ISF advance and cause maximum casualties, but its stay-behind presence in the city (likely well under 750 fighters by the authors' calculations of simultaneous daily engagements) was not intended to fight a prolonged, intensive urban battle.

19 For a great account of the battle of the Baghdad belts see Michael R. Gordon and Bernard E. Trainor, *The Endgame* (New York: Pantheon Books, 2012), pp. 336-401.

20 The "commuter insurgency" refers to an urban fight in which insurgents travel in each day, like suburban commuters, from support zones in the outskirts. Coined by U.S. forces in Iraq, the concept is explained further in David Kilcullen, *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One* (Oxford: Oxford University Press, 2009), p. 142.

21 For an account of the Ramadi battle's first three months see Michael Knights, "The ISIL's Stand in the Ramadi-Falluja Corridor," *CTC Sentinel* 7:5 (2014).

effectively defending. In some Anbar battlefields, uncontrolled deserts and riverside groves leave the Islamic State with clear reinforcement routes and fallback options.[22] In Sinjar, the Syrian border offers the Islamic State a degree of sanctuary. The Islamic State remains able to defend in areas where the Kurds are disunited and do not provide sufficient resources. [23] And in areas such as Bayji,[24] which backs onto the remote Jallam Desert and Hamrin Mountains, the Islamic State is also able confound attempts to dislodge it. The Islamic State exacerbates the challenge by extensively shaping terrain. It often impedes force movement by clogging mobility corridors with improvised minefields and destroying key bridges.[25]

One unknown in the Islamic State defensive playbook is their true attitude toward civilians. They were unable to prevent the outflow of civilians from Tikrit, Jurf as-Sakr, and many other areas, but they have actively prevented the inhabitants of Mosul from leaving thanks to a variety of security measures.[26] It is unclear whether this is because they want to prevent the depopulation of the Caliphate's biggest city or whether they are planning to use Mosul's residents as human shields or as a way to blunt airstrikes.[27] The Islamic State has never defended a populated city before. Will they drive out the population or let them leave when the military operation begins? Will they adopt the same approach in other places or will that decision be locally controlled? The ISIL view regarding the presence of civilians in the defended zone should be a priority area of near-term research.

Active Defense

When the Islamic State does commit to the defense of a zone it often chooses the most aggressive offensive approach to the mission. This probably reflects the mindset of many junior Islamic State commanders, who appear to have very considerable latitude in the planning and execution of operations.[28] Many Islamic State units appear to be afflicted with chronic "tactical restlessness,"[29] an almost pathological need to take the initiative and attack the enemy. This approach can and does help sustain morale and extend the operational experience of surviving troops, but it also tires troops and continually erodes overall force strength.[30]

A prime example of this restlessness is the tendency to mount tactical counter attacks soon after suffering a setback. This trend almost approaches doctrinal instinct and is one of the ways in which the Islamic State units resemble German forces during the final phase of the Second World War.[31] The Wehrmacht's experience also shows how predictable counter-attacks can prove very costly in the face of growing enemy power and air superiority.[32]

Such immediate counter-attacks are also achieving fewer and fewer successes. After Mosul fell the battlefields in Iraq were rather empty, with porous gaps between forces, and the Islamic State had great mobility. ISF and Peshmerga forces had not yet learned to consolidate their hold on newly-won positions and they lacked anti-armored weapons and air support.[33]

The optimal conditions for counter-attacking warfare do not currently exist yet the Islamic State keeps trying. Both the ISF and the Peshmerga are now undertaking more methodical clearing operations with large numbers of units operating in close proximity and often with Western or Iraqi air support.[34] The Kurdish frontline between Mosul and Makhmour offers a good case study. In one week-long period (February 17–23, 2015) the Islamic State attempted to launch ten major raids along the 170-mile front: eight were repelled with the aid of Western airpower, and the remaining two were disrupted before they had even commenced when aircraft destroyed the attack forces in their assembly areas.[35] Though body counts should always be treated with caution, the Coalition's claims to have inflicted over 150 casualties are probably not too wide of the mark.[36]

For many months the Islamic State's leaders appear to have been stubbornly

22 See "ISIS Offensives in Ramadi City and Al-Asad Airbase in Al-Anbar, Iraq," Jessica Lewis, Ahmed Ali, and Sinan Adnan, December 24 2014.

23 See "Kurdish Forces Show The Strain Of The ISIS Fight," Mike Giglio, February 19 2015.

24 "Islamic State recapture parts of northern refinery city Baiji," Reuters, December 17 2015. An ISF column punched through Bayji in November 2014 to relieve the besieged Bayji refinery clearing the neighborhoods along the main urban area. The Islamic State withdrew to the peripheries and in December reinfiltrated the city, over-running several isolated ISF positions. At the time of writing IS in control of some 80% of Bayji, with ISF confined to holding a corridor along the central road axis.

25 For a detailed overview of ISIL's extensive use of IED minefields see "The Hidden Enemy In Iraq," Mike Giglio, March 19, 2015.

26 In Mosul residents are kept in by a security trench that channels movement to vehicle check points, where persons leaving are forced to give the names of friends or relatives as hostages who may be harmed if they do not return. Residents also fear that may permanently lose their property if they leave the city. See "How to Retake Mosul From the Islamic State," Michael Knights and Michael Pregent, February 27 2015.

27 See "Mosul residents prepare for battle," Saleh Elias, March 13, 2015.

28 For an excellent overview of ISIL's operational art, command and control and mission-type tactics see "How to defeat Islamic State's war machine," Metin Gurcan, *al-Monitor*, October 14, 2014.

29 The authors' phrase to sum-up the Islamic State's restless patrolling and attacking actions along the frontline.

30 "U.S. officials say 6,000 ISIS fighters killed in battles," Barbara Starr, CNN, January 22, 2015. We discuss this casualty metric later in this piece.

31 See W.J.K Davies, German Army Handbook 1939-1945 (London: Purnell, 1973).

32 See Paddy Griffith, Battle Tactics of the Western Front: The British Army's Art of the Attack 1916-1918 (New Haven: Yale University Press, 1994), pp. 32, 194

33 This impression was gained during months of open-source reporting and imagery analysis plus interviews. Michael Knights, multiple personal interviews, Iraqi and Peshmerga leadership, June to March 2015.

34 Examples include the recent Kurdish offensives at Aski Mosul (January 21, 2015) and Kirkuk (March 9, 2015) which both involved Kurdish brigades fighting in line abreast, with no unguarded flanks or gaps between units.

35 The ISIL attacks struck at Sinjar, Aski Mosul, Baqufa/Tall Asqof, Fasiliyah/Mt Bashiqa, Quban/Mt Bashiqa, Hassan Shami, Makhmour peninsula (Tall Shair, Sultan Abdullah, Jarallah, Tall al-Reem). Attacks in the Badush area and Mt. Zartak east of Mosul were disrupted by airstrikes before they commenced. See Horizon Client Access, Northern KRG Security Threat Triggers, November 17-23, 2014 (subscriber service available via www.hcaccess.com).

36 Ibid. See "(22) Elements of the IS killed by Coalition planes bombing to the outskirts of Sinjar," *NINA*, February 16, 2015; "Coalition shells ISIS-held bridge on eastern Tigris River" Rudaw February 21, 2015; "Peshmerga forces repulse the IS attacks north of Mosul" *NINA* February 21, 2015; "Warplanes pound ISIS group near Mount Zartak" Rudaw February 20, 2015; "Warplanes blast ISIS positions in Kirkuk, Mekhmour" *Rudaw* February 17, 2015.

unwilling to accept that the military tide has turned against it in Iraq. Their commitment to a version of the "cult of the offensive"[37] led them to experiment with two even more costly versions of counter-attacking warfare. The first was the creation of tactical reserves made up of Suicide Vehicle-Borne Improvised Explosive Devices (SVBIEDs), often a quick reaction force made up of armored suicide truck bombs. This kind of shock force has been used on a range of battlefields—Udaim Dam, Hamrin oilfield, Tikrit[38]—but the largest such counter-attack came at Aski Mosul, south of Mosul Dam. On January 21, 2015, Peshmerga forces achieved a breakthrough across a 30-mile front that seemed to threaten the city of Mosul. In response, the Islamic State committed its operational reserve. In a scene that could have been lifted straight from the dystopian vision of the *Mad Max* movies, 14 armored fuel tanker SVBIEDs were directed against the Peshmerga breakthrough, all of which were destroyed by Western airpower and guided anti-tank missiles before they reached their targets.[39]

Another costly experiment was a theater-wide counter-offensive from the Islamic State on January 9-11, 2015. This was the largest of the Islamic State group's coordinated operations, drawing together more than a dozen platoon-sized attacks cells to mount assaults on the area held by Kurdistan Regional Government (KRG) forces between the Syrian border and Makhmour.[40] The centerpiece of the operation was a double envelopment of Kurdish forces that had pressed southwest of Erbil to the Tigris River, deep in territory held by the Islamic State since June 2014. The northern flank of the Kurdish salient suffered a series of platoon-sized river assaults across the Tigris and Zab rivers,[41] while the southern flank buckled under the weight of motorized blitzes up the Tigris, which overran Kurdish advance guard outposts that had reached the river.[42] The operation was impressive, achieving tactical surprise with dawn attacks under cover of river mist, and Kurdish forces remain stalled in the area at the time of writing. But the front opened up by the counter-offensive has sucked the Islamic State forces into a grueling battle in open areas where Kurdish forces and Western airpower continue to inflict heavy casualties.[43] This operational-level counter-offensive by the Islamic State in Iraq could well be their "Battle of the Bulge," the doomed and costly German effort in late 1944 to regain the initiative in Western Europe.[44]

Operational Impact of Tactical Restlessness

The "cult of the offensive," manifested in tactical restlessness, is probably driven by the fusion of individual and group motivations that make up the Islamic State in Iraq. Decentralized operational control gives significant leeway to local commanders, often at platoon level, to plan and undertake operations. Individual volunteers are clearly driven by their personal commitment to the armed jihad, by their desire to fight, and by a personal and small-unit quest for glory.[45] The defense of specific terrain, or even of Mosul itself, may not be important to the significant elements of the Islamic State who are not tied to particular Iraqi locales.

The willingness of Islamic State fighters to undertake offensive action can be an asset. The group creates a constant flow of well-publicized actions that bolster its propaganda efforts.[46] These images create the sense among sympathizers that the Islamic State is still on the offensive, whereas the reverse is true. Images of offensive warfare and particularly of suicide operations may be powerful recruitment tools, aiding the "refresh rate," the rate at which it is able to bring in fresh troops.

At the tactical level, the active patrolling undertaken by Islamic State units has often slowed down their opponents. Like other proficient infantry forces, the Islamic State uses fighting patrols to dominate no man's land, fix the enemy and prevent enemy intelligence-gathering, and reconnoiter attack routes. The Islamic State desensitized units with constant patrolling, with a sub-set of attacks being well-planned

37 This concept, adapted slightly here, describes the belief that the power of offensive action is so decisive that static defence is almost never adopted, regardless of local circumstances. For a good review of the issue see Jack. L Snyder, The Ideology of the Offensive: Military Decision Making and the Disasters of 1914 (Ithaca: Cornell University Press, 1984).

38 Between March 29 and April 6, 2015, the Islamic State launched at least six SVBIEDs at ISF positions in the Hamrin oil field (footage of Hamrin SVBIED utilizing a captured ISF M113 APC) . IS threw numerous SVBIEDs at the ISF in Tikrit and the surrounding areas during recent operations to clear the city, see "Casualties Increase In Iraq Due To Tikrit Operation," Joel Wing, *Musings on Iraq*, April 2, 2015.

39 See Isabel Coles, "Kurdish forces squeeze Islamic State supply line in northern Iraq," Reuters, January 21, 2015, "Peshmerga Kills Over 200 IS Militants in East Mosul Operation," *BasNews*, January 21, 2015. Video footage of the destruction of several SVBIEDs by Peshmerga anti-tank guided missiles .

40 "Peshmerga Respond to Islamic State Attacks in Zumar" *Basnews* January 11, 2015;"ISIL launches fierce attacks across Iraq" al-Jazeera January 15, 2015; "Kurdish official: Daash suffered 125 killed in Qwayer battles," *NINA* January 11, 2015, "Kidnapped Civilians Freed by Peshmerga in Gwer," *BasNews*, January 12, 2015;"ISIS Assault on "Gwer: Shaikh Serwan Barzani and His Team Ran a Way, 70 Reported Killed or Missing," *Millet* January 10, 2015. IS video footage of the Gwer attacks

41 "In heaviest fighting since August, Kurds turn back Islamic State assault near Irbil," Mitchell Prother, *McClatchy*, January 11, 2015; IS footage of the Gwer attacks

42 Ibid.

43 Since January 2015 Coalition airstrikes have pounded exposed Islamic State forces holding the Makhmour front including pinpoint close air support on frontline Islamic State vehicles and positions, Islamic State concentrations massing for attacks, and rear-area support infrastructure sustaining the front. See "The International Coalition bombed a gathering to the IS "in Tal al-Sha'ir village in al-Qayyarah district in Nineveh" *NINA* March 11, 2015; and "Coalition aircraft bomb ISIL hideouts in Gwer sun-district" *PUK Media* February 20, 2015.

44 For a thorough account of this operation see Charles B. MacDonald, *The Battle of the Bulge* (London: George Weidenfeld & Nicholson, 1984).

45 IS video releases show motivated, predominately young, 20–40 man groups—the size of an old Iraqi army platoon—making their military reputations with daring attacks. Foreign fighters and suicide and SVBIED operatives are also prominently featured. For two recent examples see footage of the complex assault on Peshmerga positions near Kirkuk in "Raiding the Barracks of the Peshmerga #2 – Wilayat Kirkuk," *Jihadology*, April 11, 2015, and the raid on a Zerevani outpost in Kisik area, "Storming the Barracks of the Peshmerga in the Area of Shandukhah – Wilayat al-Jazirah," *Jihadology*, April 5, 2015.

46 The Gwer raid video footage makes good propaganda use of captured ISF Humvees and advanced weapons systems, such as a captured 155mm M198 howitzer, to create the image of formidable, well-armed military force. IS deliberately emphasizes operations with high propaganda value versus statistically far more numerous, run-of the mill IED attacks, indirect-fire harassment and small-unit ambushes, which in fact inflict the majority of ISF and Peshmerga casualties.

trench raids intended to overrun and massacre or capture small garrisons.[47] The Islamic State got particularly effective at dominating the night and attacking under cover of morning mist or fog, greatly undermining the confidence of ISF and Peshmerga units.[48] This enabled the Islamic State to move through encirclements as if they did not exist, allowing surrounded groups to be reinforced or to slip away, and letting the Islamic State reposition forces with great freedom.[49] This night advantage has increasingly ebbed away on more static battlefields where Western airpower and intelligence assets have been provided to support the Kurds or, less frequently, the ISF. On a visit to the frontlines at Kirkuk in March 2015 one of the authors was told by Peshmerga infantrymen that the Islamic State's technicals could only break cover for a few moments to undertake heavy machine-gun attacks on Peshmerga fighters before they would be inevitably destroyed by airpower in over-watch mode.[50]

In general, however, the costs of offensive actions are rising steeply for the Islamic State while the benefits are declining. The Peshmerga and ISF are planning and conducting offensive operations with little apparent disruption from the Islamic State active patrolling.[51] Such raids and other fruitless probing actions are wearing down the Islamic State at the battlefront, a factor that may contribute to a less effective defense of key ISF objectives like Mosul, Fallujah, and Tall Afar.

Attrition to Islamic State forces is undoubtedly mounting. On January 22, 2015, U.S. ambassador to Iraq Stuart Jones told Al Arabiya television that an estimated 6,000 fighters had been killed at that point in the campaign. Breakdowns of the target types in the air campaign to that date[52] suggest that the figure may be quite likely.[53] Counting in the Islamic State losses to Kurdish forces, ISF and other causes, the Islamic State might have credibly lost many more than the U.S. estimate of six thousand in the first 24 weeks since Mosul fell, and at the time of writing there has been another 12 weeks of increasingly effective strikes and battles against the Islamic State in Iraq. Though the Islamic State refresh rate is unknown, the Islamic State group may struggle to replace weekly losses of more than 250 fatalities[54] (plus commensurate numbers of other casualties and desertions), particularly leaders and skilled specialist manpower.

The Islamic State after Mosul

The battle of Tikrit shows that the coming battles of Mosul and Fallujah will be tough but winnable, if the right formula of planning, adequate resources, Western airpower, and intelligence support is employed.[55] Mosul is far bigger than Tikrit—around 144 square miles versus eight square miles respectively[56]—but as Tikrit showed, ISF forces do not need to attack the whole city at once. Additionally, Tikrit is probably too big for the Islamic State to mount an exclusionary defense with their relatively small numbers. Coalition forces will be able to penetrate the city. Getting into the Islamic State-dominated areas is rarely the problem.

An under-acknowledged aspect of the Islamic State's military campaign in Iraq is that it has been a theater-wide "economy of force" effort. The Islamic State forces have engaged in a blur of active defense to conceal the basic thinness of their troops on the ground. If sufficient forces are available to take over and consolidate recaptured areas, then a step-by-step approach can be used to reduce the lethality and effectiveness of the Islamic State delaying tactics.[57] The key limiting factor on the speed of advance against the Islamic State is the mustering of sufficient clearing forces, the development of effective plans to clear areas, and the use of sufficient numbers of effective units to fill up contested spaces and consolidate ownership.[58]

This finding suggests that the Islamic State might also be defeated in other Iraqi cities and even in Raqqa, Syria, which is not a great distance from potential military jump-off points in Turkey, if motivated, well-supported forces can be developed to liberate and consolidate those areas. There is nothing mystical about the Islamic State as a defensive force: it has succeeded almost entirely due to the absence of

47 See the same video footage cited above, for an excellent example of this: footage of the complex assault on Pesh positions near Kirkuk "Raiding the Barracks of the Peshmerga #2 – Wilayat Kirkuk," *Jihadology*, April 11, 2015, and video of the raid on a Zerevani outpost in Kisik area, "Storming the Barracks of the Peshmerga in the Area of Shandukhah – Wilayat al-Jazirah," *Jihadology*, April 5, 2015.

48 On January 11 ,2015 Islamic State took advantage of poor weather conditions to stage a boat-borne infiltration attack across the Zab river at Gwer southeast of Mosul. They were able to control the town and its vital Mosul-Erbil highway bridge for several hours, killing 25 rear-area Asayesh security force personnel in one of the deadliest single attacks on Peshmerga forces since the fall of Mosul.

49 Ibid. The January 11 boat-borne raid on Gwer is a prime example. Islamic State undertook a night attack, also taking advantage of fog and bad weather to infiltrate across the river and achieve complete tactical surprise.

50 Michael Knights, personal group interview, Peshmerga lieutenant and Peshmerga private soldiers, Maktab Khalid, Kirkuk, March 8, 2015.

51 For instance Peshmerga advances at Khazr, Aski Mosul, and Kirkuk have taken place despite frequent ISIL raids on the frontline. Where the Kurds are not attacking—Makhmour, Sinjar, Bashiqa—it is because they have chosen not to attack further.

52 See Chris Woods, US & allied airstrikes Iraq 2014-15: Dataset maintained by freelance reporter Chris Woods

53 Targeting data showed that of the strikes, around a quarter were programmed strikes aimed at low-lethality fixed targets (buildings, often empty). The remainder (1,300–1,500 strikes by late January 2015) were dynamic targets where very careful real-time positive identification was possible because enemy units were undertaking military activity, creating high potential for multiple enemy casualties. An average of around four fatalities per strike (1,500 times four) would give 6,000 fatalities from airstrikes alone, hardly unimaginable considering the fact that Western controllers had eyes-on most IS targets until the moment of weapon impact.

54 Six thousand divided by 24 weeks, as of January 22, 2015, gives an average of 250 fatalities a week.

55 ISIL's defensive system of IEDs, snipers, and extensively booby-trapped buildings successfully absorbed and repulsed an assault on Tikrit in mid-March by Popular Mobilization Units (PMUs), but rapidly collapsed in early April under a multi-pronged push into the city by Iraqi Special Forces (ISOF) and battle-hardened federal police backed by Coalition air support. See "Divisions Over Iraq War Exposed In Victory In Tikrit," Joel Wing, *Musings on Iraq*, April 6, 2015.

56 See "How to Retake Mosul From the Islamic State," *Foreign Policy*. Michael Knights and Michael Pregent, February 27, 2015.

57 "Iraqi prime minister claims victory against Islamic State in Tikrit," Loveday Morris, *Washington Post*, March 31, 2015.

58 "CENTCOM Outlines Battle for Mosul, Doubles Estimate for IS Dead," Paul McLeary, *Defense News*, February 19, 2015.

effective opposition, not because of its inherent strength.

What will follow the liberation of cities such as Mosul, Fallujah, and Tall Afar? One option is the Ramadi model—that Islamic State elements will remain in place to mount commuter insurgencies in areas where population centers and economic hubs can be attacked from rural redoubts. This kind of operational model could work along some stretches of the Syrian border, in parts of the Western Desert and Jazira, in Beyji, in the areas between Ramadi and Fallujah, and in areas adjacent to the Hamrin Mountains. It could even work in Mosul if the ISF and Kurds repeat the error of failing to adequately garrison the city and its desert belts and satellite towns (most significantly Tall Afar).[59] A key lesson of the last six months is that retaking town centers is not a real measure of success: stabilizing the whole defensive zone, including the rural belts, is the real victory.

Rebuilding large reliable locally accepted occupation forces will not be easy given today's sectarian and economic climate in Iraq. Counter-insurgency efforts will benefit from the resettlement of displaced persons but restoring governance and services for returnees will also be very difficult. The formula of leaving Sunni areas as depopulated garrisoned zones has been used in some places—Amerli, Jurf as-Sakr, and Jalula-Saadiyah[60]—but it is not a mid-term solution and will only create ghost towns that are favorable haunts for the Islamic State. Resettling populations will be a major challenge because the Islamic State has destroyed hundreds of police stations, administrative offices, bridges, and official dwellings[61] in a deliberate counter-stabilization effort that may hint at a slow-burn strategy to wear down the Iraqi nation with repeated sorties from insurgent-controlled redoubts in Iraq and Syria. The Islamic State has failed to hold terrain, but they may prove adept at preventing post-conflict resettlement and stabilization of affected areas.[62] This is where the Islamic State' real paramilitary strength lies and this is the real military challenge faced by Iraqis and their coalition partners.

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59 For a great account of the neglect of Mosul see Joel Rayburn, *Iraq after America: Strongmen, Sectarians, Resistance The Great Unraveling: the Remaking of the Middle East*, Hoover Institution Press Publication; No. 643, August 1, 2014, pp. 137-162.

60 Human Rights Watch, "After Liberation Came Destruction: Iraqi Militias and the Aftermath of Amerli," March 18, 2015 .

61 See footnote 17 for examples of the Mosul demolitions.

62 The current situation in Diyala province, which the Iraqi government declared cleared in January 2015, is a cautionary example. ISF cleared IS from its urban stronghold in Jalula/Saadiyah in November 2014, but the insurgents merely dispersed and regrouped in rural sanctuaries along the middle Diyala river valley and their historic support zones south of Balad Ruz, with the result that overall insurgent activity in Diyala has not measurably declined since November 2014.