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THE VIRTUAL CALIPHATE: ISIS'S INFORMATION WARFARE



HARLEEN GAMBHIR

ISW
INSTITUTE FOR THE
★ STUDY OF WAR

Harleen Gambhir

The Virtual Caliphate: ISIS's Information Warfare

Cover: An Iraqi special forces soldier holds a school book issued by Islamic State fighters in a school in Mosul, Iraq, November 16, 2016. REUTERS/Goran Tomasevic

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1400 16th Street NW, Suite 515 | Washington, DC 20036

understandingwar.org

ABOUT THE AUTHOR

Harleen Gambhir is a Non-Resident Counterterrorism Fellow at the Institute for the Study of War. She previously led ISW's Counterterrorism team, and her work focused on ISIS's global strategy, operations, and propaganda. She received her B.A. from Harvard University and is currently pursuing a J.D. from Harvard Law School. Ms. Gambhir is the author of *ISIS's Global Strategy: A Wargame* and *Dabiq: The Strategic Messaging of the Islamic State*. She is a graduate of ISW's Hertog War Studies Program and has written for *The Washington Post*, *The Wall Street Journal*, and *Politico*.

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ABOUT THE INSTITUTE

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ISW believes superior strategic insight derives from a fusion of traditional social science research and innovative technological methods. ISW recognizes that the analyst of the future must be able to process a wide variety of information, ranging from personal interviews and historical artifacts to high volume structured data. ISW thanks its technology partner, Praescient Analytics, for their support in this innovative endeavor. In particular, their technology and implementation assistance has supported creating many ISW maps and graphics.



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TABLE OF CONTENTS

THE VIRTUAL CALIPHATE: ISIS'S INFORMATION WARFARE | GAMBHIR | DECEMBER 2016

EXECUTIVE SUMMARY.....	7
INTRODUCTION.....	9
ISIS'S OVERALL STRATEGY.....	10
ISIS'S INFORMATION OPERATIONS.....	11
ISIS'S INFORMATION STRATEGY.....	11
ISIS'S MEDIA APPARATUS.....	20
CENTRALIZED BUREAUCRACY.....	20
MEDIA LINES OF EFFORT.....	23
DECENTRALIZED DISSEMINATION.....	24
ELEMENTS OF ISIS'S SUCCESS IN INFORMATION OPERATIONS.....	26
THOUGHT LEADERSHIP.....	26
CONTROL OF MESSAGE.....	26
ADAPTABILITY.....	27
LONG TERM EFFECTS OF ISIS'S INFORMATION WARFARE.....	27
AL QAEDA'S INFORMATION OPERATIONS VS ISIS'S INFORMATION OPERATIONS.....	27
EMULATION OF ISIS BY LOCAL JIHADI GROUPS.....	28
ISIS'S SOURCES OF RESILIENCY.....	29
THE VIRTUAL CALIPHATE.....	30
CONCLUSION.....	31
NOTES.....	34

EXECUTIVE SUMMARY

THE VIRTUAL CALIPHATE: ISIS'S INFORMATION WARFARE | GAMBHIR | DECEMBER 2016

The Islamic State of Iraq and al-Sham (ISIS) poses an evolving threat to the U.S., its allies, and its broader interests. Its approach to information warfare has represented a key component of its overall strategy, including during the period it has faced sustained pressure. ISIS has suffered significant setbacks on the ground, yet has demonstrated the ability to adapt.

ISIS will likely maintain the capacity to align its military and information operations (IO) in the coming years. Continuing conflicts and the plodding effort to address the underlying conditions where it has taken root will likely help ISIS retain physical sanctuary and command and control capability in Iraq, Syria, and North Africa, even if it loses control of major cities.

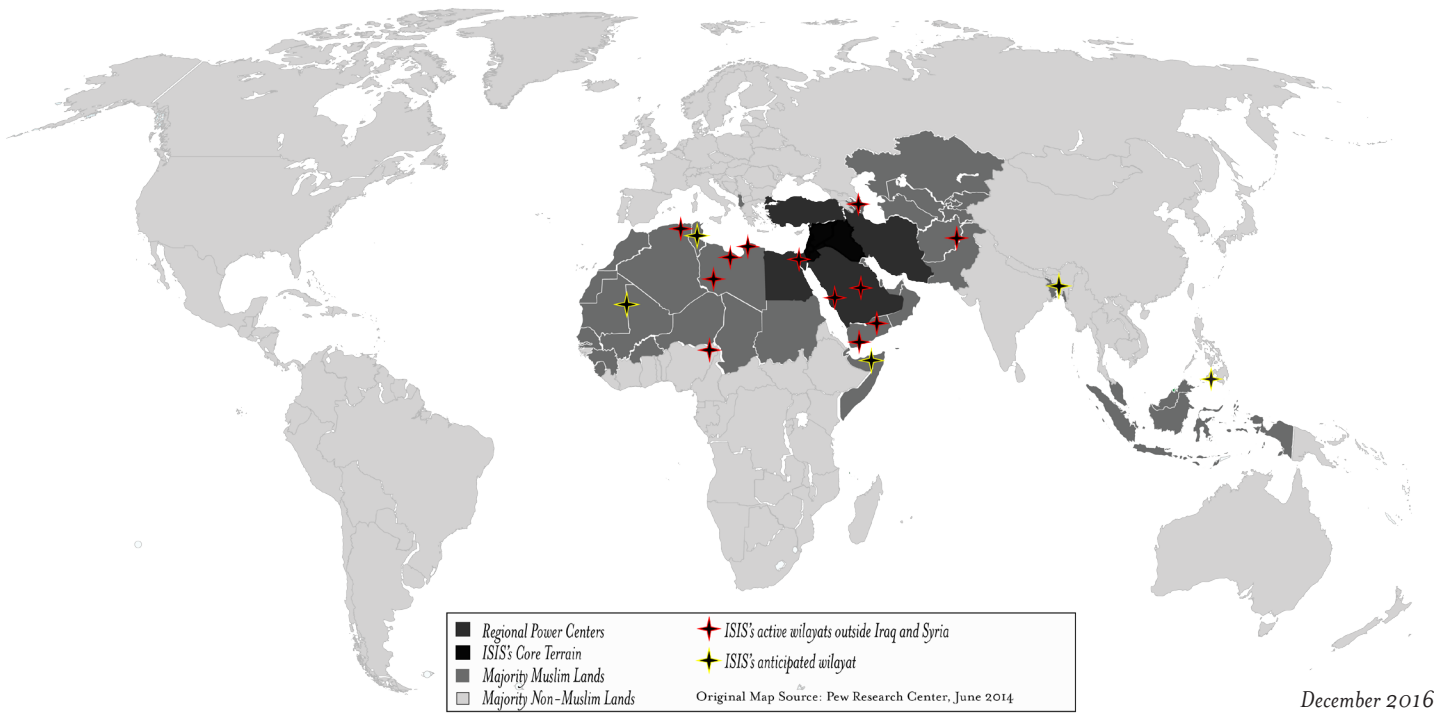
ISIS's IO campaign has supported multiple objectives, including control over territory, coercion of populations, and recruitment. This campaign has enabled ISIS's survival and execution of international terror attacks. It may ultimately usher in a "Virtual Caliphate" – a radicalized community organized online – that empowers the global Salafi-jihadi movement and that could operate independently of ISIS.

This "Virtual Caliphate," the emergence of which becomes more likely the longer ISIS's physical caliphate exists, would represent a unique challenge to American national security. Other hostile actors, beyond ISIS and the global Salafi-jihadi movement, are also adopting elements of a broader IO campaign, highlighting the requirement for the U.S. to formulate a determined response.

The U.S. possesses inherent advantages, including material resources, military strength and convening power, with which to confront this evolving threat. It also has challenges to overcome, including the lack of a government-wide strategy – supported by the necessary resources and proper bureaucratic organization – to counter enemy IO.

The U.S. should continue to counter ISIS and other enemies in this arena by focusing on rolling them back on the ground, degrading their technical capabilities and other means they employ to reach their intended audiences, and helping facilitate the emergence of compelling counter-narratives amenable to American interests.

ISIS Global Rings



December 2016

THE VIRTUAL CALIPHATE: ISIS'S INFORMATION WARFARE

By Harleen Gambhir

INTRODUCTION

The message of the Islamic State of Iraq and al-Sham (ISIS) continues to resonate globally entering 2017. ISIS shocked the world with its ability to capture territory in Iraq and Syria in 2014, but its success was not the result of military might alone. ISIS's information warfare was equally robust, and it allowed ISIS to transform a local ground war into a global phenomenon. ISIS broadcasted its caliphate digitally featuring prolific content, professional graphic design, and multiple language platforms. ISIS's information warfare inspired a groundswell of mobilized fighters. ISIS's savage yet savvy brand simultaneously appealed to disenfranchised Iraqis and disaffected teenagers seeking a utopian refuge online. ISIS became a maven in the digital space while it transformed from a fighting group to an army, promoting the idea of the immediate establishment of a physical caliphate and garnering headline attention from supporters and adversaries alike.

ISIS is far from a rapid decline in 2017. Rather, the organization continues to seize and maintain territory despite its many losses in 2016. ISIS may lose its two largest cities in 2017, Mosul, Iraq and Raqqa, Syria, but ISIS also mounted a successful offensive to reclaim a formerly controlled city, Palmyra, on December 10, 2016. Two questions remain as to how or whether ISIS will sufficiently adapt to sustain its global brand if it does lose enough territory and loyalty from its fighting force due to military losses. First, will ISIS's information operations be sufficient to sustain ISIS's global campaign if its military capacity appears diminished? Second, did ISIS's information operations ignite and transform the global threat of Salafi-jihadism in ways that will eclipse ISIS's control? This report will examine ISIS's maximal Information Operations (IO) during the 2014-2016 period to form a baseline against which ISIS's future IO may be measured in order to address these questions.

ISIS's full spectrum IO consisted of more than a global broadcast of creative propaganda. ISIS used IO to link its military operations to political objectives and to enhance the success of its military operations. Information Operations is a military doctrinal term describing measures taken by a military organization to influence friendly, neutral, and opposing forces and populations. In particular, ISIS used IO to project the strength of its caliphate on the basis of

its military strength and governance. ISIS also used IO to achieve an objective framed by al Qaeda years ago, to mobilize radicalized individuals living in the West for attacks abroad. In turn, ISIS has activated and garnered support from a dispersed online community that believes Muslims should immediately unite under the governing authority of ISIS's rightful caliph rather than remain dispersed throughout the world.

ISIS used its forward military presence to maximize the effect of its IO globally. ISIS's military organization penetrated multiple regions, including Europe, with an external operations and intelligence network that remains vast, organized, and directed by ISIS's core leadership as of late 2016.¹ ISIS uses that organization to recruit attackers as well as intermediaries to covertly carry messages, instructions, and martyr videos. ISIS also carefully designed propaganda to maximize radicalization and appeal to potential recruits. It is unsurprising that ISIS's forward presence outside of Iraq and Syria is extensive, given the success of ISIS's externally-focused IO at drawing vast numbers of mobilized fighters.

ISIS's IO nevertheless touched a broader global community of supporters outside of direct contact with ISIS. ISIS may not control or steer that community permanently. If ISIS ceases to perform the function of a lighthouse guiding the global movement it ignited, the result could be a broad and diffuse violent movement that is harder to predict and disrupt than previous strains of international terrorism. The online radicalized community ignited by ISIS's "Caliphate Now" message may function as a self-reinforcing "Virtual Caliphate" beyond 2017. ISIS may not be able to control the Virtual Caliphate, but ISIS will benefit from it nevertheless.

The Virtual Caliphate started to emerge as a second center of gravity for ISIS in late 2016, despite the death of ISIS's director of external operations and spokesman, Abu Muhammad al-Adnani.² The virtual movement generates power for ISIS that buffers against the loss of physical terrain.³ It has less exposure to ISIS's military presence than the recruits that come in contact with ISIS's core leadership. It will therefore be harder for anti-ISIS forces around the world to interdict attacks planned by members

of this virtual movement. ISIS may struggle to harness this movement while its competitors, including al Qaeda, vie for influence. But the threat that it poses to their shared enemies, especially in the West, will generate a net-positive effect for the entire global Salafi-jihadi movement.

Developing a counter-strategy for the Virtual Caliphate requires understanding how ISIS convened it in the first place. ISIS cultivated global influence through adept IO paired with military presence, including its global attack network. It broadcasted its military and governance successes, provided compelling religious justification, and integrated its online supporters into its concept of operations. It then incorporated IO into its overall strategy. This report will describe how ISIS organized its IO, where it conducted them, and how it incorporated decentralized fighters to empower supporters, grow their numbers, and generate an online global movement. The report will also explain why ISIS's IO succeeded relative to its adversaries and whether it will suffer a crisis of success, should an autonomous and self-directed Virtual Caliphate emerge.

ISIS'S OVERALL STRATEGY

One of the most powerful tools ISIS wields for influence is a coherent and durable grand strategy. ISIS desires to retain and expand its caliphate to encompass all current Muslim lands. ISIS also seeks to provoke and win an apocalyptic war with the West.⁴ ISIS pursues these objectives by breaking modern states in the majority Muslim world, seizing territory where possible, incorporating local Salafi-jihadi groups into its ranks, and launching attacks to destabilize and polarize the West. ISIS leveraged its strategy as well as its visible successes to attract new followers in the 2014-2016 timeframe and spread fear within vulnerable populations. Generating and demonstrating continued momentum despite military losses continues to be a key element of ISIS's overall strategy and IO in late 2016.

ISIS shifted its strategic narrative in May 2016 away from military victory, but its overall strategy reflected an enduring intent to control terrain and maintain its claim to a physical caliphate. ISIS's previous narrative in 2014 and 2015 asserted the group's legitimacy on the basis of its territorial control and ability to implement shari'a law.⁵ Adnani reminded adversaries in June 2015 "that there is no place on the face of the Earth where the Shari'a of Allah is implemented and the rule is entirely for Allah except for the lands of the Islamic State."⁶ Adnani changed his tune after significant military losses in May 2016, when he

framed ISIS's victory as the absence of defeat, qualified by the loss of will to fight:

*"No, defeat is losing the will and the desire to fight, and you will be victorious and the Mujahideen will lose in one case: We will be defeated and you victorious if you could remove the Qur'an from the heart of the Muslims, and that [is not possible]."*⁷

ISIS assigned its global attack network a greater role in June 2016 to complement but not replace its ground campaign. An unidentified ISIS leader encouraged fighters to attack in their homelands rather than to immigrate to the caliphate in June 2016.⁸ ISIS convened a global wave of spectacular attacks during the Islamic holy month of Ramadan in 2016, demonstrating its readiness to offset territorial losses with increased attacks worldwide.⁹ ISIS's external operations gained weight within ISIS's overall strategy in 2016, but other lines of operation, including its ground campaigns, its expansion to new fronts, and its campaign to weaken regional power centers continued to hold their own weight. The synergy among ISIS's strategies in each of its rings—its core terrain in Iraq and Syria; the regional power centers of Saudi Arabia, Iran, Turkey, and Egypt, the rest of the Muslim world; and the non-Muslim world—became apparent as ISIS's resonance and campaign integrity endured despite the loss of core territory.

A U.S. airstrike killed Adnani in Syria on August 30, 2016,¹⁰ raising questions about whether ISIS's media apparatus and external operations would continue to function effectively in his absence. Six days later ISIS replaced its longstanding signature magazine, Dabiq with a new publication, Rumiya, a reference to Rome.¹¹ ISIS reprinted Rumiya in multiple languages, streamlining the previous publication schema of its al-Hayat media office, which had consisted of unique publications in multiple languages. Rumiya was not a response to Adnani's death, but rather one of his final initiatives to chart the course for the next phase of ISIS's global campaign. It was a deliberate reconsolidation of ISIS's global broadcast, and it reflected a dedicated focus on external attacks. ISIS continued to publish multiple new issues of Rumiya throughout late 2016, indicating ISIS's media apparatus continued to function without Adnani and other deceased key leaders.¹²

The apparent refocus upon external attacks heralded by Rumiya did not occur at the expense of ISIS's ground campaigns. ISIS set conditions to carry itself through potential territorial losses, particularly after the operation to reclaim Mosul began on October 17, 2016; however,

ISIS rebounded in both Iraq and Syria in December 2016 after its concentrated defenses in Mosul stalled anti-ISIS forces in December 2016. ISIS seized the opportunity to recapture Palmyra, Syria from pro-regime forces on December 10, 2016, leveraging their focus upon Aleppo. ISIS lost control of the city of Sirte, Libya on December 5, 2016,¹³ but its recapture of Palmyra suggests ISIS did not shift comprehensively into a non-territorial phase. Meanwhile ISIS's campaigns expanded in Egypt and Asia¹⁴ while its African¹⁵ and external networks maintained operational depth and attack capability despite the death of Adnani.

ISIS'S INFORMATION OPERATIONS

*Information Operations (IO) are “the integrated employment, during military operations, of information-related capabilities in concert with other lines of operation to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting [one’s] own.”*¹⁶

ISIS's media operations go beyond strategic messaging and propaganda. ISIS cultivated influence methodically through what the U.S. military calls “Information Operations.” ISIS used a range of information-related capabilities to achieve its objectives in each of its geographic areas of operation. These capabilities include, in U.S. military doctrinal terms, **strategic communications, civil-military relations, key leader engagements, public affairs, combat camera, military information support operations, and military deception**. ISIS used these capabilities in a physical capacity with respect to local populations and in a digital capacity through global communications to limited networks and mainstream populations. ISIS also leveraged operational security, electronic warfare, and cyberspace operations with respect to its physical and digital campaigns.¹⁷ The doctrinal definitions for each of these capabilities are described within the following chart (See Figure 1).

Many of ISIS's information-related capabilities leveraged face-to-face contact with target populations. Civil-military relations and key leader engagements, military information support operations, military deception, and electronic warfare require sustained military presence. ISIS also leveraged combat camera, public affairs, and strategic communications in conjunction with its directed global attack network, which acted as another form of military presence worldwide. ISIS targeted online supporters using public affairs, strategic communications, and cyberspace operations. U.S. anti-ISIS strategies focused upon removing ISIS from cities, but not from

its target populations, particularly displaced persons fleeing ISIS's control. ISIS retains the opportunity to conduct IO in their midst in 2017 despite the loss of cities. International actors have also suppressed ISIS online, for example by deleting pro-ISIS Twitter accounts.¹⁸ ISIS's IO in conjunction with its global attack network are the least constrained aspect of ISIS's information strategy, which endured beyond the death of Adnani.

The U.S.-led coalition and ISIS frame IO differently in part due to their divergent frameworks of “domestic and foreign” audiences. The U.S. applies IO where it has military presence in some of the same ways that ISIS does. The U.S. and its partners do not have military forces akin to those in ISIS's global attack network, however. That is, decentralized groups and individuals do not act on behalf of the U.S. and its partners, providing material that the U.S. can then propagate online. The U.S. and its partners also do not have a cadre of loosely connected cyber operators similar to those who seek to promote ISIS's content and intimidate its opponents through cyberattacks. These decentralized elements of ISIS's network constitute an operational advantage. The U.S. must consider each range of ISIS's presence as an aspect of the group's information warfare and target it as such.

ISIS'S INFORMATION STRATEGY

ISIS used IO at its height to maintain social control, persuade potential supporters, soften military targets, and project international strength. ISIS synchronized its information and military operations so that it could respond quickly and effectively to world events and emerging opportunities. The chart below outlines the objectives of ISIS's IO that correspond with ISIS's military framework (see Figure 2). The ensuing sections describe the different ways in which ISIS employed information-related capabilities to support its military campaigns. IO are described under the primary objective they serve; however, many IO support multiple objectives.

CONTROLLED TERRAIN

- **OBJECTIVE:** Compel, coopt, and incorporate populations in areas of control

ISIS employed multiple information-related capabilities in conjunction with its military efforts to maintain physical control within its caliphate in Iraq and Syria, and Libya. ISIS used **presence, posture, and profile**¹⁹ after it seized major cities like Mosul in June 2014 to project strength and power with military parades, ISIS road signs,



ISIS's INFORMATION RELATED CAPABILITIES

DOCTRINAL DEFINITIONS

<p>Strategic Communications</p>	<p>Focused efforts to create, strengthen, or preserve conditions favorable for the advancement of national interests, policies, and objectives by understanding and engaging key audiences through the use of coordinated programs, plans, themes, messages, and products synchronized with the actions of all instruments of national power.</p>
<p>Civil-Military Operations</p>	<p>CMO activities establish, maintain, influence, or exploit relations between military forces, governmental and nongovernmental civilian organizations and authorities, and the civilian populace in a friendly, neutral, or hostile operational area in order to achieve US objectives.</p>
<p>Key Leader Engagement</p>	<p>KLEs are deliberate, planned engagements between US military leaders and the leaders of foreign audiences that have defined objectives, such as a change in policy or supporting the JFC's objectives. These engagements can be used to shape and influence foreign leaders at the strategic, operational, and tactical levels, and may also be directed toward specific groups such as religious leaders, academic leaders, and tribal leaders; e.g., to solidify trust and confidence in US forces.</p>
<p>Public Affairs</p>	<p>PA comprises public information, command information, and public engagement activities directed toward both the internal and external publics with interest in DOD. External publics include allies, neutrals, adversaries, and potential adversaries.</p>
<p>Combat Camera</p>	<p>Combat camera video specialists provide commanders with still and video imagery capabilities to support operational and planning requirements. These forces use video documentation capabilities ranging from aerial to underwater photography to support IIA. They access areas and events inaccessible to other personnel or media. Furthermore, combat camera teams have a technological capability to transmit real-time images that in turn serve to reinforce other information-related capability efforts. Likewise, their documentation of operations provides imagery support that counters misinformation or propaganda.</p>
<p>Military Information</p>	<p>MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. MISO focuses on the cognitive dimension of the information environment where its TA includes not just potential and actual adversaries, but also friendly and neutral populations.</p>
<p>Military Deception</p>	<p>MILDEC can be characterized as actions executed to deliberately mislead adversary decision makers, creating conditions that will contribute to the accomplishment of the friendly mission. While MILDEC requires a thorough knowledge of an adversary or potential adversary's decision-making processes, it is important to remember that it is focused on desired behavior. It is not enough to simply mislead the adversary or potential adversary; MILDEC is designed to cause them to behave in a manner advantageous to the friendly mission, such as misallocation of resources, attacking at a time and place advantageous to friendly forces, or avoid taking action at all.</p>
<p>Operations Security</p>	<p>OPSEC is a standardized process designed to meet operational needs by mitigating risks associated with specific vulnerabilities in order to deny adversaries critical information and observable indicators. OPSEC identifies critical information and actions attendant to friendly military operations to deny observables to adversary intelligence systems.</p>
<p>Joint Electromagnetic Spectrum Operations</p>	<p>JEMSO, consisting of EW [Electronic Warfare] and joint EMS [Electro-Magnetic Spectrum] management operations, enable EMS-dependent systems to function in their intended operational environment. EW is the mission area ultimately responsible for securing and maintaining freedom of action in the EMS for friendly forces while exploiting or denying it to adversaries.</p>
<p>Cyberspace Operations</p>	<p>CO are the employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace. Cyberspace capabilities, when in support of IO, deny or manipulate adversary or potential adversary decision making, through targeting an information medium (such as a wireless access point in the physical dimension), the message itself (an encrypted message in the information dimension), or a cyber-persona (an online identity that facilitates communication, decision making, and the influencing of audiences in the cognitive dimension).</p>

Figure 1

Reference: JP 3-13, FM 3-13

ISIS's MILITARY FRAMEWORK

ISIS's Military Framework	Objective of ISIS's Information Operations
Controlled Terrain	<ul style="list-style-type: none"> > Compel, coopt, and incorporate populations in areas of control > Assert ISIS's success in governing > Convey narrative of endurance to local residents and outside world
Areas of Expansion	<ul style="list-style-type: none"> > Argue for ISIS's superiority over al Qaeda > Recruit fighters and families to support ISIS's entry into new areas > Intimidate potential rivals > Confuse military forces acting against ISIS > Convey narrative of constant expansion to local residents and outside world
International Terror Campaign	<ul style="list-style-type: none"> > Convey narrative of continued operational strength > Intimidate anti-ISIS actors > Encourage and celebrate polarization in the West
Online Recruitment	<ul style="list-style-type: none"> > Convey narrative of global war and ultimate victory > Radicalize populations globally > Encourage international lone actor and small cell attacks in support of ISIS

Figure 2

and flags throughout controlled cities. ISIS's offensives to seize Mosul in June 2014 and Sirte in February 2015 both featured large columns of technical vehicles flying ISIS's flag rolling into the cities, for example.²⁰ ISIS used presence long before that in Iraq, in places such as Ramadi, where ISIS also participated overtly in parades associated with the Sunni protest movement in 2013.²¹ ISIS also used presence to intimidate local populations and local leaders in Mosul before ISIS seized control through a number of measures, including intimidation of journalists.²² These historic examples are harbingers for the kind of presence ISIS will continue to exert after it loses control of cities. Once in control of populated areas in Iraq and Syria, ISIS strengthened its control by conducting large-scale disarmament and massacres to quash potential rebellion.²³

ISIS then implemented governance and security in its areas of control, influencing local friendly, neutral, and

adversarial forces through activities akin to **civil-military operations**.²⁴ ISIS staffed a religious, or hisbah police, and a robust internal security unit to ensure compliance with its decrees, monitor for dissent, and project law and order.²⁵ It also established agencies to administer provincial-level education, justice, taxation, consumer protection, and public works.²⁶ These governance efforts supported ISIS's claimed legitimacy as a state and helped the organization win the support of the local population.²⁷ ISIS also attempted to coopt populations through elaborate Ramadan games and other social outreach.²⁸ ISIS conducted outreach to local leaders through its *Diwan* of Tribal Affairs after seizing populated areas, in a form of key leader engagement.²⁹ Officials from the *Diwan* met with tribal leaders in Iraq, Syria, and Libya since the organization's June 2014 Iraq offensive to explain ISIS's purpose, request pledges of allegiance, and coordinate on military and governance affairs.³⁰ ISIS may scale back its

use of civil-military operations and **key leader engagement** as it loses control of terrain.

ISIS will likely maintain **public affairs**³¹ operations in its areas of control, which ISIS calls “media” operations. These actions encourage local support for ISIS without expending significant military resources. ISIS maintained a public affairs staff that disseminated the organization’s official digital and print media to local residents, primarily at “media points,” or kiosks. ISIS viewed this media distribution as a key method of demonstrating its strength and control as a caliphate to local populations. Media point administrators characterized their work as jihad and said they “fight on the domestic front to convey the reality” of ISIS’s military campaigns.³² ISIS claimed to



Figure 3: Image of an ISIS “media point” in an unidentified location, released by ISIS in the March 28, 2016 edition of its al Naba newsletter. For more information contact the author.

have sixty media points in Iraq as of March 2016 and 25 in Mosul alone, in addition to several “mobile media points” to reach remote areas in the caliphate (See Figure 3). Some media points feature television screens and media archives with content in multiple languages, while others simply distributed print content, SIM cards, CD-ROMs, or memory sticks.³³

ISIS’s media distribution within the caliphate capitalized upon the group’s ongoing campaigns within Iraq, Syria, the wider region, and internationally. ISIS used major military and terror events as an opportunity to demonstrate its brutality and strength to local populations. The group organized public screenings of a video showing the

February 2015 immolation of Jordanian pilot Muath al-Kassabeh in areas under its control in Iraq and Syria in order to intimidate potential dissidents and demonstrate the organization’s strength over foreign militaries and alleged “disbelievers.” ISIS’s fighters across Iraq, Syria, and Libya also distributed candy and flyers of ISIS’s claim that it downed a Russian jet over Egypt’s Sinai Peninsula and launched suicide attacks in Brussels in October 2015 and March 2016, respectively (See Figure 4).³⁴ These acts reiterated ISIS’s claimed success against powerful states as a means of ensuring local obedience. Even as it lost terrain, ISIS attempted to retain popular support by claiming opposition forces, particularly Kurdish or Shi’a dominated forces, destroyed infrastructure and abused Sunni Muslims.³⁵

ISIS’s previous IO to compel, coopt, and recruit local populations will aid its efforts to reconstitute its fighting force after losing cities. ISIS, al Qaeda, and other Salafi-jihadi groups will likely attempt to build indigenous support in the long term among internally displaced populations (IDPs) and civilians in areas reclaimed from ISIS in Iraq and Syria.³⁶ These populations remain vulnerable to jihadi targeting in 2017 due to poor living conditions, a dearth of opportunities, the threat of sectarian violence, and potential resentment against their governments because of slow reconstruction and resettlement.

- **OBJECTIVE:** Convey narrative of endurance to local residents and outside world

ISIS supplemented its offensive media operations with defensive efforts to control the information released from its caliphate. ISIS tightly regulated Internet access in urban centers. Residents of ISIS’s Syrian stronghold of Raqqa, for example, were only permitted to access the Internet in guarded cafes after presenting ISIS’s fighters with photo identification.³⁷ These precautions limit the extent to which dissident organizations such as the anti-ISIS “Raqqa is Being Slaughtered Silently” (RSS) activist group could broadcast reports of ISIS’s transgressions. Anecdotal reports claimed that ISIS similarly required its fighters to relinquish their personal cellphones upon joining the group in order to ensure the militants did not post unapproved content about ISIS’s activities, and likely also to enhance ISIS’s **operations security**.³⁸ These regulations supported ISIS’s larger effort to maintain a unified narrative about the endurance of the caliphate, described further in the section below titled “ISIS’s Media Apparatus.”



Figure 4: Screen capture from Wilayat Ninewa video of fighters distributing flyers with Wilayat Sinai's claim of downing a Russian jet on October 31, 2015. For more information contact the author.

ISIS also limited the information entering its areas of control in order to maintain obedience from local populations. ISIS prevented civilians in the caliphate from accessing radio or Internet reports on the advances of anti-ISIS forces, likely out of fear that these revelations would embolden a groundswell of resistance. These limitations on Internet access can be classified as **cyberspace operations**³⁹ to deny potential adversaries access to information media or to a particular message. ISIS also broadcasted its own radio station in Mosul, Iraq to scramble the signal of private radio stations in the surrounding areas and prevent messages of hope from reaching the city's residents, a form of **joint electromagnetic spectrum operations**, which includes electronic warfare.⁴⁰ ISIS's fighters also destroyed civilian television satellites and receivers in northeastern Syria in August 2015 to prevent the spread of allegedly "baseless and false" information, likely referring to reports of ISIS's losses in nearby Tel Abyad.⁴¹ ISIS began restricting television access in Mosul in May 2016 as Iraqi Security Forces and Popular Mobilization Units prepared for operations to retake the city.⁴² These restrictions decreased the possibility of armed uprising by allowing ISIS to exaggerate the extent of its military might. ISIS has likely intensified these defensive actions as the U.S.-

led coalition advanced upon major ISIS-held cities in Iraq and Syria in late 2016.

AREAS OF EXPANSION

- **OBJECTIVES:** Argue for ISIS's superiority over al Qaeda; Recruit fighters and families to support ISIS's entry into new areas

ISIS recorded and published media about actions that demonstrated its presence and authority even in areas where it had not yet established control. These acts functioned as **military information support operations**⁴³ in that they influenced local populations in areas that ISIS wished to control. For example, ISIS's affiliates published photo sets depicting their members burning contraband material such as cigarettes and marijuana in Benghazi, Libya and Khyber Agency, Pakistan, before ISIS's local forces actually controlled terrain (See Figure 5).⁴⁴ More recently, ISIS's Wilayat Gharb Ifrqiyya released photos depicting the burning of cigarettes and flogging of a drug seller in December 2016.⁴⁵ These publications also served as a form of **strategic communication** for ISIS's global audience by conveying the organization's religious conviction. ISIS differentiated itself from al Qaeda-

affiliated and associated groups by its insistence upon administering strict shari'a law before and immediately after seizing control of an area.⁴⁶ Media demonstrating ISIS's success was an intimidation measure as well as an appeal to already-radicalized populations.

ISIS also sent forward religious emissaries to its desired areas of expansion in order to recruit and build local support, engaging directly with communities as well as their key leaders. ISIS members set up religious outreach, or dawa gatherings to speak about jihad, hold games for children, and pass out ISIS's media and religious pamphlets.⁴⁷ Open source documentation demonstrates that ISIS was conducting this type of outreach in Syria as of 2013, if not earlier.⁴⁸ ISIS similarly deployed leader Sheikh Turki al Binali to deliver a series of religious lectures in Sirte, Libya in 2013.⁴⁹ The outreach helped ISIS recruit among the local Salafi-jihadi group Ansar al Sharia, paving the way for ISIS's takeover of the city in mid-2015. ISIS may increasingly deploy emissaries from Iraq and Syria to other areas of the Middle East, North Africa, and Asia to conduct this type of outreach in order to build indigenous support in multiple theaters. A geographically

diffuse support base will complicate efforts to destroy ISIS in the long term.

- OBJECTIVE: Intimidate potential rivals

ISIS also conducted **military information support operations** to intimidate potential local rivals in areas of expansion. ISIS began executing these operations before the declaration of its caliphate. The group published frequent threats against Iraqi Security Forces in the form of printed statements and videos during the course of its "Soldier's Harvest" campaign between July 2013 and June 2014 to intimidate and weaken military forces in Iraq.⁵⁰ ISIS sought to create an environment of fear in order to degrade state defenses in northern Iraq prior to its initial assault on Mosul in June 2014. ISIS continued to conduct IO to intimidate local opponents as it expanded, exporting the practice to its affiliates outside of Iraq and Syria. ISIS's affiliate in Libya began broadcasting ISIS's radio program at the outset of its offensive on Sirte in February 2015, for example, proclaiming the group's presence as conventional forces arrived.⁵¹



Figure 5: ISIS members burning tobacco products in Benghazi, Libya in a photo released by ISIS's Wilayat Barqa (Eastern Libya) Media Office on December 15, 2015. Source: Twitter, December 2015. For more information contact the author.

ISIS also executed **military information support operations** against foreign governments and populations in the region where it did not yet have a substantial, overt military presence. The group's immolation of a Jordanian pilot within Syria in February 2015 and its assassination of a Saudi security officer near Abu Arish in the Jazan region in February 2016 both aimed to shape the actions of foreign governments and populations.⁵² ISIS's videos of each act aimed to encourage "apostate" governments to accelerate actions against ISIS, thereby forcing citizens to polarize into pro- and anti-ISIS camps. These media operations also served as **strategic communications**, providing a low-cost way for ISIS to amplify its perceived power without actually expending military capabilities. ISIS will likely escalate spectacular attacks in 2017 in order to encourage global destabilization regardless of the status of its military campaign to control territory.

- **OBJECTIVE:** Confuse military forces acting against ISIS

ISIS conducted **military deception**⁵³ to confuse and intimidate opponents while executing military offensives. The organization published rumors of defections to ISIS and a series of defection videos on social media as it initiated the first phase of a campaign against Syrian opposition groups in Deir ez Zour Province in April 2014.⁵⁴ Local ISIS units that had been embedded as sleeper cells also arose in a coordinated manner during this phase, maximizing the psychological effect of ISIS's military actions against opposition groups. Institute for the Study of War analyst Valerie Syzbala argued that ISIS's social media manipulation during this offensive successfully dispersed rebel brigades in Deir ez Zour, enabling ISIS to seize terrain.⁵⁵ ISIS likely repeated this type of tactical deception in subsequent military efforts, particularly in Syria, where opposition groups frequently communicated about intended offensives on Twitter. It is unclear whether ISIS will be able to maintain military deception operations as it moves to an increasingly defensive stance within Iraq and Syria, but it is a potential element of ISIS's planned offensives should they continue in 2017.

- **OBJECTIVE:** Convey narrative of constant expansion to local residents and outside world

ISIS's media output in countries outside of Iraq and Syria generally increased in frequency and quality as the group expanded its military presence. This pattern applied both to areas where ISIS did not have an official wilayat, or governorate, such as Bangladesh, the

Philippines, and Tunisia, as well as in areas where ISIS had already declared wilayats. Jihadi actors in Libya and Egypt provided an early example of ISIS-linked media evolution. The Shura Council of Islamic Youth in Derna, Libya and Ansar Beit al-Maqdis in the Sinai Peninsula, Egypt, each published branded statements, photos, and videos independently prior to pledging allegiance to ISIS in the fall of 2014. Both began publishing higher quality, more frequent ISIS-branded material soon after ISIS's leader Abu Bakr al-Baghdadi declared the establishment of wilayats in those countries in November 2014 (See Figure 6).⁵⁶ This improvement in media came alongside an observable increase in operational sophistication and reported transfusion of leadership from ISIS in Iraq and Syria to both groups.⁵⁷ ISIS's leadership likely assisted affiliates with media production as part of a larger suite of capabilities and support offered to those who establish formal relationships with the organization. ISIS may increasingly export its information-related capabilities to its supporters and affiliates in North Africa, the Middle East, and Asia in order to build enduring ties to local Salafi-jihadi groups and eventually incorporate them, if ISIS's media apparatus endures despite the loss of its major cities in Iraq and Syria.

DIRECTED GLOBAL ATTACK NETWORK

ISIS's global attack network and IO were fully integrated under Adnani. ISIS cultivated an extensive network of attackers and facilitators in Europe,⁵⁹ responsible for numerous coordinated spectacular attacks in Europe in 2015-2016, including highly lethal attacks in Paris⁶⁰ and Brussels.⁶¹ Al-Adnani led ISIS's "Amin al-Kharj"⁶² or External Security Service, a clandestine operation based in Syria that deployed special operators for attacks across the globe.⁶³ Adnani also directed ISIS's IO.⁶⁴ He linked ISIS's attack network and its networking function to ISIS's media houses, particularly al-Hayat media, which publishes ISIS's digital content in multiple foreign languages. He was likely responsible for the synergy and momentum of ISIS's IO targeting pro-ISIS populations in the sphere of influence of the External Security Service.

It is uncertain whether ISIS will be able to innovate and adapt this dimension of its IO without Adnani. ISIS maintained its international attack network beyond Adnani's death, as demonstrated by numerous foiled attacks around the globe.⁶⁵ Al-Hayat media also continued to link media themes to military success through Rumiyah magazine beyond Adnani's death. ISIS replaced Adnani publically. ISIS' al-Furqan Media Foundation released

ISIS's Media Upgrades in External Wilayats

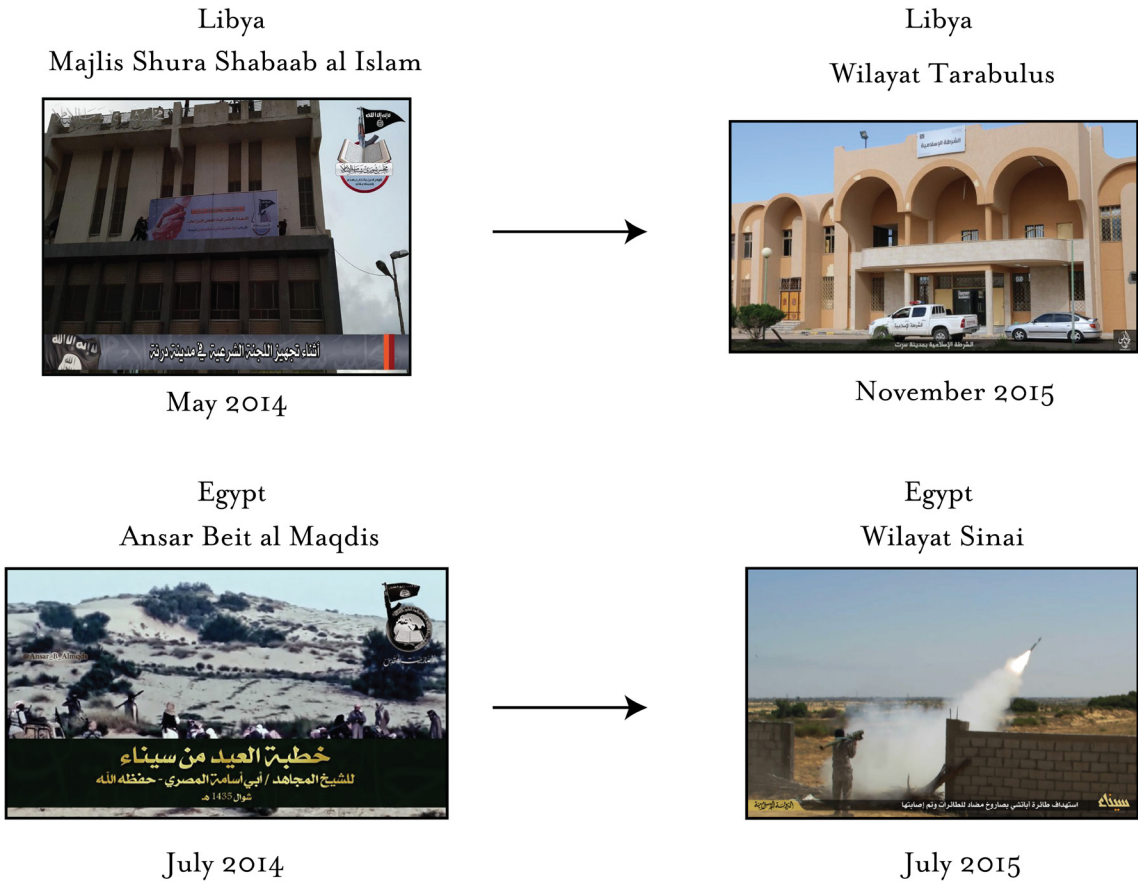


Figure 6

an audio statement on December 5, 2016 from Abu al-Hassan al-Muhajir, a relatively unknown individual, announcing his ascension to Adnani's former role as media spokesman and second-in-command of ISIS.⁶⁶ The announcement followed numerous successful anti-ISIS operations targeting key leaders and could indicate a more significant consolidation of ISIS's overall organization.⁶⁷ With respect to IO, it is unlikely that he will fulfill Adnani's dual leadership of external and media operations. In the short term, this transition may lead to a less synchronized approach between the coordination of attacks outside core terrain and ISIS's media operations.

- OBJECTIVES: Convey narrative of continued operational strength; Intimidate anti-ISIS actors; Encourage and celebrate polarization in the West

ISIS conducted IO as part of its overall campaign to terrorize anti-ISIS actors and polarize the West. ISIS

supported and directed international attacks in order to punish those acting against it in Iraq and Syria, including all members of the U.S.-led coalition and Russia. ISIS also encouraged individual acts of terror in its name to create an environment of fear and suspicion within the U.S. and Europe. Adnani threatened since September 2014 that ISIS would make the "Crusaders" feel unsafe in their own streets, "turning right and left, fearing the Muslims."⁶⁸ ISIS attempted to sow fear in order to trigger state and social backlash against Muslim communities in the West, polarizing communities in a manner that facilitated ISIS's recruitment and weakened Western alliances in advance of ISIS's desired apocalyptic war.

ISIS magnified the psychological impact of its international terror campaign through **strategic communications**. ISIS's affiliates and operatives developed new methods to influence mainstream media narratives, particularly by extending coverage. These adaptations included changes to

the execution of attacks as well as to ISIS's media coverage of them. Adherents to ISIS who conducted attacks in 2016 in Paris,⁶⁹ Orlando,⁷⁰ and Dhaka⁷¹ all took hostages, for example, extending the length of their operation and thereby extend press coverage.⁷² Attackers in both Paris and Dhaka left behind images of themselves at the site of the attack to facilitate independent reporting.⁷³ ISIS often released official branded claims for its spectacular attacks, and featured those attacks heavily in follow-on content including magazines, long-form videos, and pan-organization photo and video campaigns to maximize their resonance.⁷⁴

ISIS also released digital content as quickly as possible after an attack in order to maximize control of the international media narrative. ISIS circulated claims of its October 2015 downing of a Russian jet in Egypt, November 2015 attacks in Paris, and March 2016 attacks in Paris within a day of each event.⁷⁵ The perpetrators of the July 2016 Dhaka attack reportedly photographed victims and sent images to ISIS's media leadership as the operation unfolded, allowing ISIS to report on the attack details nearly in real time.⁷⁶ ISIS-inspired Larossi Abballa meanwhile used Facebook to live-stream a video of himself stabbing a French police officer and his partner in June 2016.⁷⁷ These types of synchronized military and IO enabled ISIS to claim success and remain powerful and intimidating in global media despite accumulating losses in Iraq and Syria throughout 2016.

INSPIRED ACTORS

ISIS mobilized a global community of inspired individual attackers and online supporters beyond the reach of its global attack network. ISIS cultivated it through **digital strategic communications**, **cyberspace operations**, **public affairs**, and **electronic warfare** likely conducted within Iraq and Syria. This dimension of ISIS's IO did not require military forces or co-location of media operatives. ISIS's digital strategic communications will continue if ISIS loses control of Mosul and Raqqa, its traditional media production hubs. Moreover, the global community of online supporters ISIS inspired with the idea of the "Caliphate Now" will remain if ISIS loses control of all its territory. The resultant online community, or Virtual Caliphate, has become a second center of gravity for ISIS in 2016. ISIS could attempt to claim that its caliphate endures through its international, digitally-connected community of supporters rather than in a physical sense in 2017 and beyond, though ISIS is not in danger of losing all of its territory at the close of 2016.

- **OBJECTIVE:** Convey narrative of global war and ultimate victory

ISIS's digital strategic communications ignited a global phenomenon by leveraging shock and awe. ISIS shocked the world with its seizure of cities, mass executions, and tanks in Iraq and Syria. ISIS used footage of battles recorded in Iraq and Syria in several major media publications after the declaration of its caliphate in June 2014 and the initiation of the U.S. air campaign in Iraq in August 2014.⁷⁸ ISIS also executed multiple American and British hostages in Syria in the fall of 2014, beginning with U.S. journalist James Foley. ISIS produced high-quality videos of these beheadings using multiple takes and a carefully prepared script.⁷⁹ The group released the videos in series, with the executioner naming the next victim at the end of each installment. ISIS later featured photos of the beheaded victims in its English-language magazine Dabiq along with a letter allegedly written by James Foley, ensuring that Western news sources could easily access the commentary.⁸⁰ These coordinated, dramatic videos and publications helped ISIS capture global attention and maintain dominance in the international news cycle months after its capture of Mosul. Strategic communications in this case gave ISIS international influence exceeding its kinetic accomplishments.

- **OBJECTIVE:** Radicalize and recruit populations globally

ISIS's online community provided an immersive environment that accelerated radicalization and enabled ISIS to recruit individuals quickly to act on its behalf. U.S. Federal Bureau of Investigation (FBI) Director James Comey observed that ISIS had reduced the "flash to bang," or length of time between an initial exposure of a potential recruit to extremist ideas online and an attempt to join ISIS or launch a lone wolf attack.⁸¹ ISIS did so by providing a sense of community through what Wilson Center fellow Dr. Gabriella Weimann called a "virtual pack."⁸² Individuals tempted by ISIS's promises of domination, power, and a life of meaning and belonging could tune in at any time of day or night to watch videos or view endless photos depicting those ideals. ISIS's digital broadcast included depictions of idyllic life in ISIS-held cities such as Raqqa and Mosul, as well as combat scenes sometimes filmed using combat cameras.⁸³ Pro-ISIS social media propagated a virtual reality in which the caliphate exists as an immediately accessible utopia. This narrative became more attractive to vulnerable audiences than al

Qaeda's vision, which treats the caliphate as a long-term goal that will be hard-won.⁸⁴ Whereas ISIS's message urged supporters to emigrate or launch attacks immediately.

- **OBJECTIVE:** Facilitate and encourage individuals and small cell attacks internationally in support of ISIS

ISIS maintained a network of digital recruiters that facilitated and encouraged attacks, blurring the line between ISIS's global attack network and inspired actors. Publishers of pro-ISIS content frequently offered advice and connections to those seeking to join ISIS or its affiliates. Online recruiters, some of whom previously emigrated to Iraq and Syria, would link interested parties to local or Turkey-based facilitators after ensuring that the recruit's intentions were genuine. The facilitators then provided cash or assisted with travel arrangements for prospective recruits in some cases.⁸⁵ ISIS's fighters also encouraged individuals unable to emigrate to ISIS-held territory to launch domestic attacks. Foreign fighters such as British citizen Junaid Hussain and Australian citizen Neil Prakash provided guidance to prospective individual and small cell attackers before their deaths in August 2015 and May 2016, respectively.⁸⁶ Junaid Hussain reportedly instructed Boston resident Usaama Rahim to behead far-right blogger Pamela Geller in May 2015, before FBI investigators killed Rahim as he attempted to launch a stabbing attack in June 2015.⁸⁷

Hussain also encouraged individuals in Britain to bomb an Armed Forces Day parade in South London in June 2015. The plot was thwarted when Hussain unwittingly recruited a British reporter posing as a potential ISIS recruit.⁸⁸ Neil Prakash was linked to a failed plot to behead a police officer in Victoria, Australia during Anzac Day celebrations on April 25, 2015. Both men encouraged these plots while residing in ISIS-held territory, likely in Syria.⁸⁹ Mohamed Daleel, a Syrian national, detonated a suicide bomb outside of a music festival near Ansbach, Germany, wounding 15 others on July 24, 2016. Investigations later found that Daleel was in contact with suspected ISIS-linked militants outside of Germany, some of whom were using Saudi Arabian telephone numbers.⁹⁰ ISIS's campaign to radicalize internationally will remain effective in 2017 because of the organization's continued ability to engender support with its online content and then to translate that support to action.⁹¹

ISIS'S MEDIA APPARATUS

ISIS's successful IO stemmed from its effective institutions. ISIS centralized its global media production under a single command. This centralized approach allowed ISIS to direct its media forces with the speed and discipline of military forces. The depth of ISIS's media bureaucracy must have required dedicated resources and training, as well as a single chain of command, responsible for its agile and adaptive behavior. ISIS's media apparatus behaved synergistically with ISIS's religious and military organs. ISIS was able to align its military and IO particularly well, likely because of its centralized command. It managed multiple lines of effort and employed new technologies at a pace that distinguished ISIS from its competitors in the IO space.

ISIS's media bureaucracy likely existed within ISIS's controlled territory. Successful U.S. targeting of Adnani and ISIS Central Media Department leader Abu Mohammed al-Furqan near Aleppo and Raqqah in August 2016 and October 2016, respectively, corroborates this assessment.⁹² ISIS may seek to move its media leadership and infrastructure to locations outside of Iraq and Syria as it loses terrain, particularly to regional wilayats in Sinai and Libya. Under extreme pressure ISIS may even attempt to decentralize its media bureaucracy, using dispersed operators that previously comprised the extensions of its media organization abroad. It is possible that the deaths of Adnani and Furqan will drive ISIS to decentralize in 2017. The following sections detail the centralized manner of ISIS's former media apparatus to baseline and observe future change.

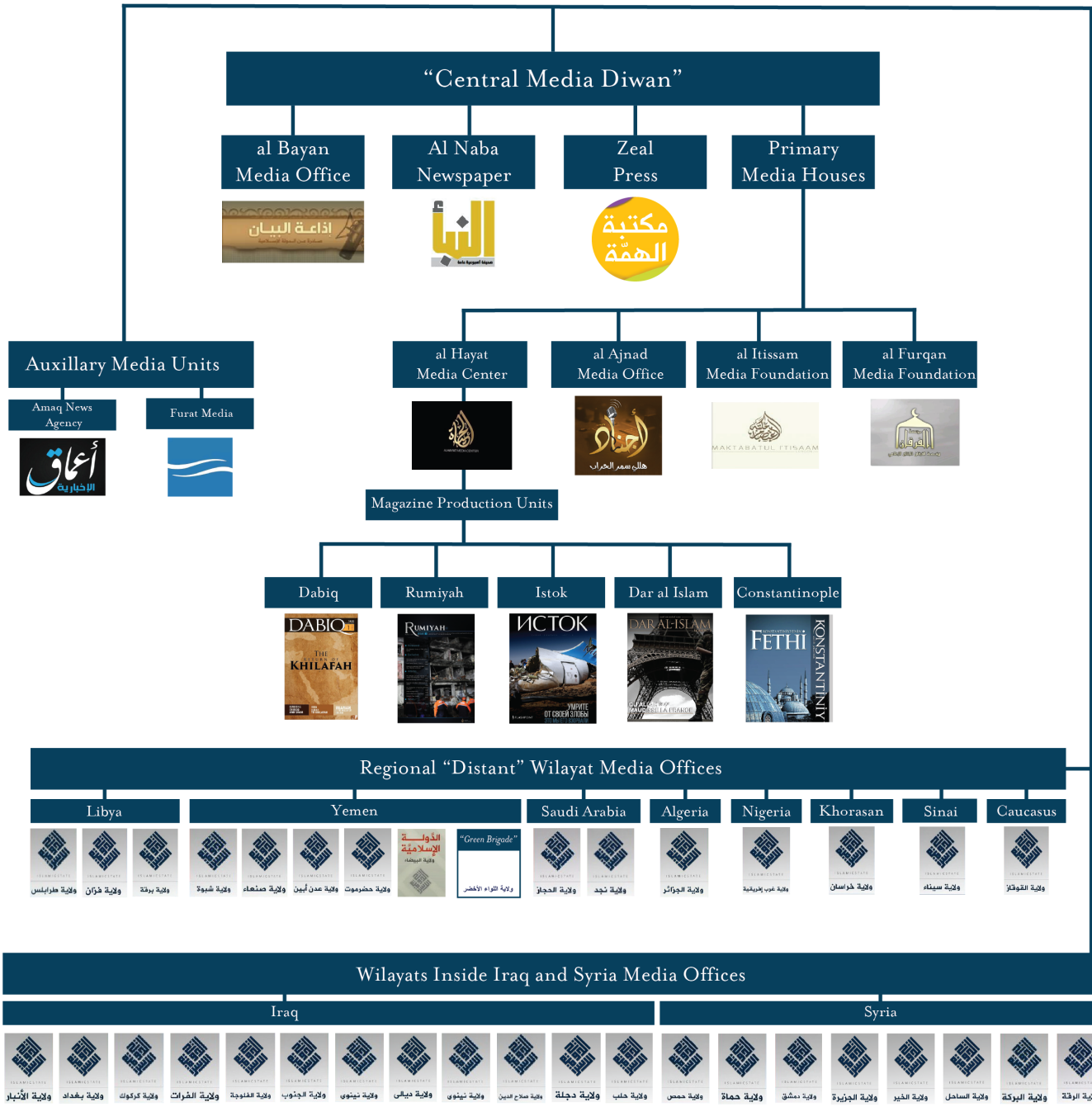
CENTRALIZED BUREAUCRACY

ISIS created a highly structured, well-resourced bureaucracy to support its media operations. This bureaucracy was responsible for all of ISIS's official media, including battlefield photosets, recruitment videos, and foreign-language magazines. Researcher Aymenn al Tamimi and British newspaper *The Guardian* published an alleged internal "blueprint" of ISIS's administrative activities, including its media operations, in December 2015.⁹³ The blueprint described the ideal organization of ISIS's media bureaucracy, as allegedly written by an ISIS administrator in late 2014. Separate Western reporting and ISW's study of ISIS's media practices corroborate the bureaucracy described in Tamimi's translation.



ISIS's Media Apparatus

ISIS Base Media Foundation



Parts of this graphic were based on ISIS's *Structure of the Caliphate* video released on July 06, 2016

Figure 7

Graphic by Caitlin Forrest

The administrator referenced by Tamimi identified centralization as the core requirement for successful media operations. He explained that ISIS should have “one media foundation branched out within multiple pockets” to promote ISIS’s ideology and activities in a “comprehensive” way. This central office was called *al-Mu’asat al-Um* or “The Base Foundation,” which reported directly to the caliph, ISIS’s *shura*, or advisory council, and ISIS’s military commander and chief security official. This central office was likely the same *Diwan al-I’lam al-Markazi* or “The Central Media Office” that ISIS identified in a July 2016 video describing the organization of the caliphate.⁹⁴ The Base Foundation “define[d] the priorities of publication and broadcasting as well as media campaigns,” according to Tamimi’s source. It also managed the creation of new subordinate media offices, supervised their activity, and trained and funded the caliphate’s media staff. The Base Foundation’s close relationship with ISIS’s *shura* council and military leadership allowed the media organization to formulate overall messaging themes and specific media campaigns that maximally supported ISIS’s organizational and military objectives. The Base Foundation was likely located in Iraq or Syria, leveraging ISIS’s core defenses for security and command and control.

The Base Foundation administered ISIS major media houses, which include al-Hayat, al-Furqan, al-Ajnad, and al-Itissam, as well as the *wilayat* media offices and the auxiliary Amaq News Agency. Al-Hayat produced ISIS’s long-form magazines including *Konstantinyye*, ISIS’s Turkish language magazine, and its newest magazine *Rumiyah*, which it translated into numerous languages. Al-Hayat also likely produced similar longform magazines *Dar al-Islam*, *Dabiq*, and *Istok*, although these publications did not bear the media foundation’s logo.⁹⁵ As of late 2016, *Rumiyah* has apparently supplanted other internationally oriented publications, as al-Hayat has ceased publishing them.

The Base Foundation also incorporated other media houses beyond al-Hayat. Al-Furqan, a relic of ISIS’s al-Qaeda heritage, released videos of religious sermons and speeches from leading figures in the organization. Al-Ajnad published *anashid*, musical pieces glorifying Islam and its defenders, along with Koranic recitations.⁹⁶ Al-Itissam became dormant in April 2015, but historically produced videos targeting recruits in neighboring Muslim-majority countries. As evidence of its dormancy, the July 2016 video detailing ISIS’s structure⁹⁷ and a November 2015 infographic highlighting ISIS media successes⁹⁸ do not include al-Itissam.

The Base Foundation also ran ISIS’s overseas al-Bayan radio, the weekly Arabic-language military update *al-Naba*, and *Maktaba al-Himma* or “Zeal Press.” Al-Bayan radio was broadcast in major cities under its control including in Raqqa, Mosul, and previously Sirte until Libyan and U.S.-led coalition forces forced most ISIS militants from the city in July 2016. Al-Bayan broadcasted news updates as well as *anashid* and discussions. Al-Naba recounted battlefield success in a weekly Arabic-language newsletter, which most often contained an infographic. *Maktabat al-Himma*, or Zeal Press, primarily releases religious doctrinal studies. It also released an app for children to learn of the Arabic alphabet, using examples from life under ISIS control such as tanks and rifles.⁹⁹ Some content from multiple *al-Naba* articles also appeared in *Rumiyah* (See Figure 7).

The Base Foundation also commanded media offices linked to ISIS’s 35 Iraqi, Syrian, and external *wilayats*, or governorates. These *wilayat* media offices coordinated with the military, security, and administrative officials in each governorate, while also reporting to a supervisor in the Base Foundation. They produced content related to military operations, service provision, and day-to-day life in areas under ISIS’s control. ISIS’s Base Foundation published this content online, disseminating it with the aid of ISIS’s community of online supporters. The *wilayat* offices also printed and distributed hard copies of official ISIS media to civilians under ISIS’s control, supporting ISIS’s larger efforts to intimidate and recruit amongst local populations. Al-Hayat also produced a “Top 10” video roll-up of videos from the provincial media offices.

The Base Foundation maintained ultimate control over all “auxiliary” media agencies, which were established “according to the mother office’s needs and interests.”¹⁰⁰ The auxiliary agencies reported on ISIS’s activities without a direct link to a given *wilayat*. This category likely includes ISIS-linked Amaq News Agency, which frequently released online reports on ISIS’s attacks hours or days before ISIS’s official media organization claims them. Amaq likely maintained reporters on the ground in Iraq and Syria and as well as digital links to ISIS’s global network. It reported on ground activities in Iraq and Syria as well as regional *wilayats*; and it also covered the activities of ISIS’s directed attack network and individual adherents.¹⁰¹ Amaq appeared to play a larger role in ISIS’s media efforts by late 2016, releasing long form event descriptions with photos, campaign maps, and videos via its Telegram channel.

ISIS devoted substantial resources to its media bureaucracy. The Base Foundation and its subordinate offices employed



Figure 8

“hundreds of videographers, producers, and editors” within Iraq and Syria alone as of late 2015, according to defected members of the media office.¹⁰² Media employees reportedly underwent a special month-long training program after receiving two months of ISIS’s standard military training. They formed a “privileged, professional class” with a higher monthly income than ISIS’s fighters and exemption from ISIS’s taxes.¹⁰³ The media operators reportedly received regular shipments of video equipment smuggled through Turkey. ISIS’s prioritization of its media operations indicates the importance the group placed on crafting and propagating a compelling narrative.

ISIS aligned media and military operations at the highest levels, a reflection of the thought leadership of Adnani. Adnani led monthly meetings. prior to his death to choose which ISIS videos to promote “based on battlefield events,” according an ISIS defector in August 2016.¹⁰⁴ Defectors further claimed ISIS’s media operatives were “directly involved in decisions on strategy and territory,” with optics informing how a given operation would be conducted. ISIS’s media leadership may have provided guidance on the way ISIS executed an offensive to seize the Syrian Arab Army’s Seventeenth Division headquarters in the summer of 2014, for example. ISIS’s fighters beheaded the division’s commander soon after entering the facility and quickly announced the accomplishment on a loudspeaker and posted photos of the act on Twitter. These acts demoralized the regime soldiers and helped ISIS seize the base.¹⁰⁵ ISIS’s combat engagements provided the organization with military gains and media footage that intimidates ISIS’s local enemies and proves its claims of success and dominance on the global stage. ISIS sometimes shaped military operations to maximize their value for ISIS’s IO, a function that may not endure beyond Adnani’s death.

MEDIA LINES OF EFFORT

ISIS’s media promoted several themes emphasizing the strength and success of the caliphate (See Figure 8). This content supported ISIS’s international recruitment and claim to govern terrain as a political and religious authority. ISIS released footage of its global conventional, guerrilla, and terrorist attacks in order to demonstrate its continued military strength. The group also published photos, videos, and essays depicting life in ISIS’s caliphate as idyllic. This content included images of bustling markets, livestock, and landscapes to demonstrate the wealth and beauty of ISIS’s caliphate, as well as images depicting ISIS’s service provision to prove the organization effectively met the requirements of a state and properly implemented effective shari’a governance. ISIS continued to release this type of content even as it suffered military defeats in Iraq and Syria in 2015 and 2016. ISIS also released content to encourage hatred for its opponents, including the West, Shi’a populations, ethnic and religious minorities, regional governments, and al Qaeda. ISIS maintained these themes since the declaration of its caliphate in June 2014, and they will likely continue to drive ISIS’s media content in 2017.

ISIS’s Base Foundation designed and executed discrete media campaigns to promote the organization’s centrally approved narrative on emerging trends and conflicts. ISIS could mobilize as many of 14 of its subordinate media offices to create videos responding to a recent event, using centrally mandated themes and phrases. This capability demonstrated the Base Foundation’s command and control, which made it possible for ISIS to quickly release a trans-regional response to current events. This relationship became evident in March 2015, when five of ISIS’s wilayat media offices released videos on congratulating Boko Haram’s pledge of allegiance to ISIS over a period of eight

days (with one final wilayat offering a similar message two months later). Each video featured one or more fighters who spoke of their joy in response to Boko Haram's pledge and repeated ISIS's call for other wilayats to extend their congratulations. ISIS conducted at least ten similar media campaigns subsequently, some with as many as 14 wilayat media offices participating. The simultaneous video releases were sometimes accompanied by related content in ISIS's weekly newsletter or long-form magazines or in speeches by leaders. ISIS's wilayats disseminated media on other coordinated themes throughout 2015 and 2016, including a campaign about Middle Eastern refugees in September 2015 and Egyptian-Saudi relations in April 2016.

ISIS developed tailored products for niche audiences. ISIS's magazines al-Naba, Dabiq, Dar al-Islam, Istok, and Konstantiniyye target Arabic, English, French, Russian, and Turkish-speaking populations, respectively. ISIS also produced a large body of recruitment videos targeting specific populations. Many of these videos targeted external audiences for recruitment, such as residents of the Balkans, China's Xinjiang Province, or Trinidad and Tobago.¹⁰⁷ This focus on niche audiences distinguished ISIS's media from that of al Qaeda and its affiliates, which typically appealed to local communities in its areas of operation or alternately to the global Muslim population, or ummah. ISIS published content that channeled a viewer's nationality, degree of religious fervor, militant affiliation, ethnicity, geographic region, or gender.

ISIS used tailored content as a gateway to introduce potential supporters to its more generalized stream of military and governance-related media. ISIS's online supporters and recruiters circulated this targeted content among networks with similar traits, helping ISIS connect with the identity most important to the viewer. ISIS reduced its efforts to develop tailored content with its newest publication Rumiyyah, which it released in eight languages in September 2016.¹⁰⁸ The consolidation of previous media lines of effort may reflect limited resources and a desire to streamline the organization for efficiency. The magazine borrowed heavily from other publications, such as ISIS's weekly Arabic-language military operation update al-Naba magazine. Alternatively, it may reflect cohesion in ISIS's target audience.

DECENTRALIZED DISSEMINATION

ISIS leveraged an extensive, decentralized community of online supporters to disseminate its content globally.

ISIS did not maintain an official website or singular social media account, unlike other Syrian militant groups or global jihadi groups, in part due to international efforts to curb its online presence (see Figure 9).¹⁰⁹ Instead, ISIS's Base Foundation posted photos, videos, digital magazines, and audio broadcasts on jihadi forums and file sharing websites, allowing anyone online to download and repost the content. This approach allowed ISIS to "crowd source" its publicity while maintaining a strategically unified message. ISIS's international and multi-lingual supporter network promoted the group's content actively. ISIS's supporters on Twitter alone posted more than 90,000 messages on behalf of the group each day by February 2015.¹¹⁰ ISIS's supporters produced an average of fifty more tweets per day than ISIS's opponents from July 2014 to April 2015, according to an August 2016 study by the RAND Corporation.¹¹¹ ISIS automated additional tweets through programmed "Twitter bots" applications such as the Dawn of Glad Tiding, an Android application that provides users with reports of ISIS's activities and also allows ISIS's operatives to send periodic tweets from the Twitter account of the application's user.¹¹² The application posted as many as 40,000 tweets when ISIS captured Mosul in June 2014.¹¹³

ISIS's supporters adapted to numerous efforts to destroy their digital presence since the declaration of ISIS's caliphate. Twitter claimed in early 2016 that it had deleted 125,000 accounts since mid-2015 for threatening or promoting terrorist activity. Yet well-known pro-ISIS accounts endured by creating new accounts with the same profile picture and account names appended by numbers that increased with each iteration.¹¹⁴ Other pro-ISIS Twitter users found these new accounts then posted "shout out" messages with the new account names so interested users could quickly re-follow the account.¹¹⁵ One ISIS supporter named Abu al Walid regenerated his presence 463 times through this method as of May 2015.¹¹⁶ ISIS's supporters also migrated to more secure platforms such as Telegram and Threema in order to create redundancy in case a single platform succeeded in eradicating pro-ISIS accounts.¹¹⁷

ISIS's supporters recognized the benefit of the resilient "fanboy" network, referring to obsessive and overly enthusiastic fans. An unofficial, pro-ISIS publication released in 2015 explained:¹¹⁸

The Islamic State's content (videos, ebooks, social media accounts) are scattered all around the internet. Just like the different provinces of the Islamic State are

scattered in different locations. ... By decentralizing everything from the core leadership, even if a province fails online or offline, the leadership and overall Khilafah (Caliphate) leadership project is still safe and can grow elsewhere.

The U.S. and its allies cannot eliminate ISIS's online community of supporters, in large part due to the organization's groundbreaking use of a dispersed social media network.¹¹⁹ As technology incubator Jigsaw's founder Jared Cohen notes, the strength of ISIS's supporters "lies both in their numbers and in their willingness to mimic ISIS's official line without having to receive direct orders from its leadership."¹²⁰ The mass, decentralized dissemination of ISIS's media created an online echo chamber that amplified and repeated ISIS's unified narrative. ISIS's multitude of messengers gave the group the appearance of wide acceptance and credibility online, which accelerated global radicalization.

ISIS maintained a formidable digital presence using a variety of online platforms. In addition to Twitter, ISIS's

supporters posted official ISIS media on file-sharing websites such as justpaste.it, and through broadcasting applications such as Telegram.¹²¹ This proliferation persists as of late 2016 despite the efforts of Twitter and other platform owners to eliminate pro-ISIS accounts and content. ISIS's supporters became adept at regenerating networks since 2014, for example by following a predictable and possibly automated account renaming convention.¹²² Additionally, those with the goal of posting content supportive of ISIS have in many cases moved from Twitter to encrypted communication techniques.¹²³ In response to claims in July 2016 that ISIS's Twitter resonance dropped, ISIS began to ask its followers to reconstitute a robust presence on Twitter to counter the narrative that it lost its online followership.¹²⁴

ISIS's usage of decentralized dissemination represents a key vulnerability for the organization. Online supporters have become accustomed to accessing and sharing a regular stream of professional content. A combination of continued high-value targeting, loss of terrain, and digital denial on popular platforms could disrupt ISIS's ability



Figure 9

to produce and distribute this content in 2017. Other Salafi-Jihadi groups could capitalize on this opportunity by offering alternative content. The online echo chamber could also take on a life of its own, generating content outside of ISIS's strategic objectives. The online community enacted its own social media campaign in the wake of Adnani's death, for example.¹²⁵ The independent activity of ISIS's online community of supporters will propel ISIS's global agenda in the near term. But it could overtake ISIS's campaign in the long term, producing a different strand of Salafi-jihadism with willing attackers that are harder to detect, interdict, and prevent.

ELEMENTS OF ISIS'S SUCCESS IN INFORMATION OPERATIONS

ISIS's IO succeeded due to its use of physical and digital presence and its formulation of effective institutions. ISIS's IO were also successful because of the organization's thought leadership, control of its message, and adaptability. ISIS demonstrated agility by releasing timely strategic communications, to the point that it could support military operations that are in progress. ISIS's IO were also adaptive—the group was able to find new platforms to share content and new types of encryption when necessary. ISIS's decentralized and crowd-sourcing online support base ensured its content proliferated despite the efforts of the U.S.-led coalition and online platform owners.

THOUGHT LEADERSHIP

ISIS's thought leadership was creative and assured quality of content that provided a sense of legitimacy and immediacy for its audience. ISIS also sought to grab headlines continually as an aspect of its IO. It maintained a continuity of argument and accepted the risk associated with lying and other ethical concerns that prohibit anti-ISIS actors from keeping pace with all of ISIS's IO methods. ISIS's thought leaders incorporate many voices, shown by ISIS's prolific content and the continuation of media production after the death of multiple key media leaders. They effectively identified niche audiences for recruitment such as residents of the Balkans or Trinidad and Tobago, and tailored media to target them. ISIS has also released multiple branded products each day, making it seem like the group is very active on the ground. Each element of ISIS's success in IO set an example that other actors may seek to adopt.

CONTROL OF MESSAGE

ISIS sought to project the image of a legitimate state through its media publications, including control of its message. The group standardized its logos and formatting across print and digital mediums to promote a unified aesthetic image (see Figure 10).¹²⁶ It typically based its attack claims on actual events that could be corroborated by independent news reporting, though often inflating casualty counts and exaggerating the sophistication of its attack. ISIS claimed it caused fifty casualties with a vehicle-borne improvised explosive device (VBIED) in Raqqa Province on June 30, 2016, for example, while independent reporting indicated a maximum of thirty-five casualties.¹²⁷ ISIS claimed it killed fifteen Iraqi soldiers with a suicide VBIED (SVBIED) near Ramadi on June 21, 2016, with local news claimed via an Iraqi commander that ISIS had only launched IEDs and injured five guards.¹²⁸ ISIS skirted factual inconsistencies by claiming it was providing the “true” account of events in contrast to that of biased Western news organizations.



Figure 10: Example of a branded ISIS attack claim. This claim is from ISIS's Wilayah Diyala, claiming a suicide attack against Iraqi police in Baqubah, Diyala province, Iraq on June 2, 2016. For more information contact the author.

ISIS's unified media format was part of a larger effort to retain centralized control over the caliphate's messaging. Soon after the declaration of the caliphate in the summer of 2014, ISIS began publishing its attack claims as image files, rather than as plain text statements. This switch ensured that those reposting ISIS's content could not alter the bureaucratically approved version. Pro-ISIS online communities began to police against counterfeit content by identifying and circulating fraudulent claims with warnings about their illegitimacy.¹²⁹ ISIS also instituted strict regulations within Iraq and Syria to ensure that only its version of events would come out of ISIS-controlled

areas. ISIS limited Internet access in Syria's Raqqa and Deir ez Zour Provinces in 2014 and 2015. ISIS also required independent journalists living in its areas of control to register with caliphate authorities and only publish content approved by the organization from the fall of 2014 onwards.¹³⁰ It also restricted its own media operatives in controlled terrain, reportedly ordering them to delete footage from their devices after transferring it to memory sticks for editing crews.¹³¹ ISIS strengthened its narrative by eliminating potentially contradictory reports from other actors in the caliphate. ISIS conducted strategic communications clearly and quickly because of its control of message. Without such control ISIS would not have been able to achieve the close alignment of its military and IO that makes it uniquely effective.

ADAPTABILITY

ISIS's IO were dynamic and responsive to the strategic needs of the group. ISIS's IO incorporated real-world developments. ISIS creatively combatted efforts to destroy its digital presence. It also rapidly adopted new and improved platforms to communicate with its online supporters, including methods of encryption that impeded efforts by authorities to track the group. Without sacrificing quality, ISIS adapted its methods of communicating to meet organizational requirements. As mentioned, the group shifted to place attack claims in easily-shared image files, rather than text, in order to address the proliferation of unofficial information. ISIS established a resilient online community that became a secondary source of strength for the group as it lost terrain in Iraq and Syria in 2016.

ISIS's information warfare will change as the group evolves. ISIS may lose some information capabilities in its areas of control due to anti-ISIS military operations. ISIS may also improve or intensify capabilities used in its other areas of operation in support of changing military priorities. ISIS responded to military losses in Iraq and Syria in the spring of 2016 by directing and encouraging its affiliates and supporters to launch frequent terror attacks during the month of Ramadan.¹³² ISIS adjusted its IO to maximize the impact of these attacks. ISIS-affiliated actors in Bangladesh sent photos of their victims to the ISIS-linked Amaq news agency, and ISIS-inspired actor Larossi Aballa live streamed an attack on Facebook. ISIS's fighters used new tools and techniques in both cases to shape mainstream media coverage of their actions, thereby increasing their global resonance. ISIS also adapted its methods of mobilizing online jihadi communities online.

ISIS's supporters embraced new social media platforms and encrypted communications tools to compensate for law enforcement and platform owner actions against ISIS since June 2014.¹³³ The adaptation of ISIS's IO, particularly outside Iraq and Syria, will make ISIS resilient in the long term.

ISIS may intensify strategic communications related to its campaigns outside of Iraq and Syria in coming years to support the group's global strategy. ISIS could continue to deflect the loss of territorial control in Iraq and Syria by prioritizing its regional and international military campaigns. Adnani called for supporters unable to travel to Iraq and Syria to emigrate to ISIS's regional affiliates in March 2015, thereby placing legitimacy and importance on ISIS's campaigns in North Africa, Asia, and the wider Middle East.¹³⁴ Adnani also urged supporters in the U.S. and Europe to launch domestic attacks if they were unable to travel to the caliphate in May 2016.¹³⁵ ISIS may increasingly seek to fund and facilitate military attacks and IO outside of Iraq and Syria using its regional wilayats as well as its supporters and operatives in other parts of the world. Strategic communications focused on ISIS's regional and international efforts would allow the group to continue to project strength even as it loses terrain in Iraq and Syria as an interim approach until ISIS can reconstitute a physical caliphate that appears strong.

LONG TERM EFFECTS OF ISIS'S INFORMATION WARFARE

ISIS's highly visible information warfare has drawn the attention of international state actors, thus providing other Salafi-jihadi groups like al Qaeda with increased freedom to conduct IO in line with its covert, locally focused methodology. Other jihadi groups meanwhile are adopting ISIS's methods of mobilizing supporters globally through social media, in addition to other elements of ISIS's information warfare. These trends will encourage global radicalization and therefore enable ISIS to build a resilient, radicalized online community that may outlast ISIS's current iteration as a force that controls and governs terrain. This Virtual Caliphate will encourage jihadi violence globally and threaten U.S. national security if left unaddressed.

AL QAEDA'S INFORMATION OPERATIONS VS ISIS'S INFORMATION OPERATIONS

ISIS viewed itself as a revolutionary, uncompromising force. It sought to polarize and recruit international populations

by publicizing its successes and crushing its opponents.¹³⁶ This framing led ISIS to emphasize the power of its brand. ISIS centrally controlled its global media network, leveraging its local control to produce programs such as the al Bayan radio program, which summarized major actions conducted by ISIS, its affiliates, and supporters across the globe each day.¹³⁷ This centralization enabled ISIS to appear prolific and militarily active. The strength and notoriety of ISIS's official brand, paradoxically, often increased international media coverage of unofficial messages produced by hyper-local groups or actors that pledged support to ISIS. International audiences elevated and circulated pro-ISIS videos produced by militants in Tanzania and an individual in France in May and June 2016, for example, because both claimed to be acting on behalf of the organization.¹³⁸ Jihadi actors thus had an incentive to pledge to ISIS in order to gain recognition from this global audience, fostering a cycle of mutually generated publicity.

Al Qaeda, in contrast, operates as a covert facilitating organization. Al Qaeda believes its affiliates can most effectively indoctrinate Muslim populations by providing high-level military and governance support to local militant groups. Al Qaeda aims to build in-person connections with local insurgencies in order to slowly transform Sunni populations and eventually declare a global caliphate.¹³⁹ In line with this locally focused outlook, al Qaeda's leadership encourages its regional affiliates to produce their own media, with some training and assistance from al Qaeda's leadership.¹⁴⁰ Most of al Qaeda's IO leverage decentralized but dense local presence. Al Qaeda's affiliates do not typically emphasize their links to the international organization in their media products. They also do not participate in cohesive media campaigns across multiple regions as ISIS's affiliates do. Al Qaeda's affiliates instead release media focused primarily on local grievances and events in order to encourage support among target audiences in the organization's midst.

Al Qaeda's decentralized approach to IO enables the organization to build indigenous support in multiple regions as the international community focuses on anti-ISIS efforts. ISIS's repulsion of some populations, such as some of the Syrian opposition, allows al Qaeda to intercept their loyalty by accentuating its contrast to ISIS as a more gradualist, superficially less barbaric organization. Al Qaeda will likely continue to foster radicalization through its decentralized network rather than adopt ISIS's hierarchical, centralized model of IO. This choice reflects al Qaeda's strategic patience and unwillingness to center

its popularity on a single brand. Al Qaeda is even willing to encourage its own affiliates to abandon its brand when beneficial, as demonstrated by their "split" from Jabhat al-Nusra on July 29, 2016,¹⁴¹ which was intended to re-legitimize Jabhat al-Nusra among Syrians. Al Qaeda is unlikely to align its various media outlets to promote itself in a manner similar to ISIS until it reaches a later stage in its methodology; namely, until it has indoctrinated a large portion of the global Muslim population and is prepared to launch a unified, trans-regional war against the West.

Al Qaeda's digital IO, particularly its Western-oriented strategic communications, have not achieved the same resonance as those of ISIS. Al Qaeda in the Arabian Peninsula (AQAP) has published an English-language magazine *Inspire* since July 11, 2010, advocating international attacks in its name and criticizing the West.¹⁴² Al Qaeda also conducted outreach to Western audiences through video lectures by U.S. citizen Anwar al Awlaki using its digital presence. Awlaki also conducted operations to inspire and communicate with several exterbak attackers including Fort Hood shooter Nidal Malik Hussain and "Underwear Bomber" Umar Farouk Abdulmutallab.¹⁴³ ISIS's emphasis on strategic communications since the declaration of the caliphate in June 2014 far outstripped al Qaeda's global media, however. ISIS encouraged the undiscerning recruitment of potential inspired fighters. It also published magazines, attack claims, religious chants, and leadership speeches in English and other Western languages. ISIS's openness to a global membership and its dedication of resources to Western-oriented material facilitated the group's creation of a diverse, international community of supporters. The virtual community ISIS convened boosts the global Salafi-jihadi cause broadly, however, and ISIS's legacy supports al Qaeda's global objectives in kind.¹⁴⁴

EMULATION OF ISIS BY LOCAL JIHAI GROUPS

The success of ISIS's IO encourages other jihadi organizations to target new audiences, embrace social media, and promote an immersive narrative of victory. These organizations include individual al Qaeda affiliates that adopt isolated best practices from ISIS's media apparatus. For example, Syrian al Qaeda affiliate Jabhat al Nusra responded to ISIS's regular production of *Dabiq* by creating its own highly produced English-language digital magazine *Risalah* in June 2015.¹⁴⁵ *Risalah* demonstrated Nusra's interest in communicating its narrative directly to Western audiences in order to mobilize them for al

Qaeda rather than ISIS. The first issue of *Risalah* featured reviews of Nusra's military victories, a woman's story of emigrating to Syria, and an interview with an alleged defector from ISIS—all topics that mirrored similar pieces ISIS had published. Nusra directly refuted ISIS's claim to a caliphate and presented an alternate version of jihad in a way that Western audiences without religious education could understand, effectively teaching a new population about the ongoing conflict between ISIS and al Qaeda.

Local jihadi groups may also increasingly emulate elements of ISIS's IO, particularly to increase domestic recruitment. Taliban militants in Afghanistan adopted ISIS's practice of live broadcasting attacks on social media to create drama and present a "virtual reality" for online supporters to follow in December 2015. The group published information about a December 8 attack on the Kandahar Airfield as it unfolded, posting photos on their website and circulating a video addressing U.S. President Barack Obama on Telegram.¹⁴⁶ Taliban militants also claimed responsibility for a December 11 attack on a guesthouse in Kabul in near-real time, posting photos on Twitter and Telegram as it occurred.¹⁴⁷ The close temporal alignment of military and IO was unusual for the group, suggesting it may have responded to ISIS's methods. Militant groups also adopted new social media platforms as ISIS publicized its content. Al Qaeda-associated Salafi-jihadi insurgent group Ansar al Sharia in Libya began sharing its radio broadcasts on the social live audio platform Mixlr on February 9, 2016, for example, three days after ISIS launched a website allowing users to stream its al Bayan radio broadcasts.¹⁴⁸ Jihadi groups will likely continue accelerating their social media efforts to compete with and leverage ISIS's global information warfare. This expansion of digital IO will grow the groups' fighting populations, increasing their effectiveness.

The U.S. will thus likely face increasingly sophisticated IO by ISIS, al Qaeda, and other Salafi-jihadi groups on the ground and online. Organizations will improve their ability to translate military successes into international recruitment appeals by producing immersive, high-quality media and targeting social media outreach as ISIS has. Increased online activity by Salafi-jihadi groups will encourage greater radicalization of isolated individuals. It will also increase the global connectivity of the Salafi-jihadi movement. Militant elements within the same region may use social media and other online communication platforms not only to encourage recruits and celebrate jihadism, but also to coordinate attacks and move people, weapons, and funds on the ground. ISIS's new model

for multi-range IO will survive even if the organization is defeated. The U.S. must develop means of countering jihadi IO with the expectation of a long term challenge.

ISIS'S SOURCES OF RESILIENCY

ISIS intends to remain. Its military campaign has shown signs of readiness to mount new offensives before it loses all of its controlled territory. ISIS may respond to major military defeats within Iraq and Syria by withdrawing to desert sanctuaries, regenerating strength, and exploiting slow rehabilitation and reconstruction efforts over the course of several years. But ISIS will ultimately renew its attempts to claim control of physical territory, especially cities within Iraq and Syria. The organization maintains that tactical withdrawal and regeneration is a key "consolidation" step in its eventual path to declaring a caliphate, allowing ISIS to maintain a fluid reaction to temporary losses.¹⁴⁹ This is the approach that ISIS's predecessor al Qaeda in Iraq (AQI) adopted after its near-defeat in 2010.¹⁵⁰ The question of how ISIS will use IO to maintain international notoriety and support must remain tethered to ISIS's intent to sustain its military campaign. ISIS may nevertheless contend with a crisis of success in that it has created a Virtual Caliphate that may endure independently.

ISIS will likely maintain the capacity to align its military and IO in the coming years. Ongoing conflicts and slow reconstruction will likely enable ISIS to retain physical sanctuary and command and control capability in Iraq, Syria, and North Africa, even if it loses control of major cities. ISIS will use this sanctuary to export its expertise and its IO to its affiliates and supporters worldwide. ISIS's commanders will teach the organization's affiliates to effectively employ ground-based information-related capabilities such as presence, posture, and profile, civil-military operations, key leader engagement, public affairs, military information support operations, military deception, and combat cameras. ISIS's Base Foundation will likely retain the ability to coordinate digitally based information-related capabilities such as strategic communications, cyberspace operations, joint electromagnetic spectrum operations, and military information support operations, with the support of regional and international operators.

ISIS's affiliates in North Africa, the Middle East, and Asia will continue to execute local campaigns to undermine states and exacerbate conflicts, thereby providing ISIS's Base Foundation and its subsidiary agencies with continued

content related to military and governance activities for videos, photosets, magazines, radio broadcasts, and other publications. Moreover, prolonged sectarian and factional conflicts in Syria, Iraq, Libya, Yemen, Nigeria, Afghanistan, and other countries will likely encourage trends of global disorder, as will continued great power struggles between the U.S., Russia, Turkey, Iran, Saudi Arabia, and others. ISIS's affiliates will attempt to increase international disorder by weakening states, preventing failed states from recovering, and provoking local and regional conflict. Other violent extremist organizations, particularly Salafi-jihadi groups, will also exploit ongoing conflicts to expand operations in the physical and digital domains, adopting lessons learned from ISIS's example.

THE VIRTUAL CALIPHATE

ISIS's unique execution of global IO may give rise to a Virtual Caliphate that can pose a new threat to U.S. national security. The trends of heightened global conflict, jihadi adoption of ISIS's IO, and increased global radicalization will accelerate the consolidation of an adaptive, resilient online jihadi community. ISIS has incentive to resource and strengthen this virtual community as it suffers military defeats. ISIS will seek to bolster the resiliency of its digital network of supporters more quickly than the anti-ISIS coalition can destroy it, in order to hedge against a future in which it does not hold populated terrain. ISIS's brand in this case would not be contingent upon the existence of a physical caliphate, though it will likely endure, but rather upon ISIS's ability to encourage and facilitate terrorist attacks worldwide.

ISIS has already cultivated an accessible, active online jihadi community. ISIS's network of supporters propagates an immersive virtual reality on social media, posting constantly about the caliphate and its successes. The pace and extent of pro-ISIS online activity encourages rapid radicalization of individuals who otherwise may not have any contact with jihadi actors.¹⁵¹ ISIS's international supporters communicate with each other in addition to consuming the organization's media. Key users facilitate fundraising, recruitment, and attacks across multiple regions.¹⁵² Inspired individuals, such as Amedy Coulibaly, Elton Simpson, and Omar Mateen, interact with this online community and subsequently launch domestic attacks.

Over time members of these online communities may begin to launch attacks not in celebration or defense of ISIS's caliphate, as they have in the past, but rather

because they are inspired by watching the acts of others like them. The volume of individuals planning and executing jihadi attacks would be sufficiently great enough that the success and notoriety of the attackers would become the recruitment mechanism for the next attacker. Online facilitators and jihadi media producers may provide sufficient activation energy to maintain momentum for this phenomenon.

Participants may begin to rally around the Virtual Caliphate, rather than ISIS's physical caliphate, even though the latter endures. The movement would consist of a network of like-minded individuals interacting via chat rooms, jihadi forums, and social media platforms, as ISIS and al Qaeda's supporters do now. This group would not follow the exploits of al Qaeda or ISIS, however, by watching the organizations' attack videos, reading their propaganda, and discussing how to emigrate. Rather, this group would follow its own exploits, and possibly self-organize to prioritize target and attack types and promote best practices. The group would benefit greatly from ISIS's legacy and would likely feature some aspects of ISIS's present day online recruitment network, proliferation of immersive content, and principles of immediate and uncompromising violence.

The Virtual Caliphate will not necessarily be tied to terrain. Its members will operate in the physical domain, as they log onto computers and mobile phones, film content, and launch attacks. Many core aspects of the organization will be digitally executed, however, including communications, recruitment, cyberspace operations, public affairs, and possibly command and control. The group may self-organize in an analogue to the hacking collective Anonymous, except it will launch attacks in both the digital and physical domains. The Virtual Caliphate's physical footprint will be roughly proportional to the sophistication of its attacks. Simple stabbings or attacks with cars may not require in-person facilitation or efforts to obtain weapons. Combined arms attacks such as the December 2015 San Bernardino attacks or the March 2016 Brussels attacks may require access to training areas, explosive facilities, and weapons dealers.

The Virtual Caliphate may not be explicitly linked to ISIS. The formation of a radicalizing, self-propelling online jihadi community is not mutually exclusive with the other visions for ISIS's adaptation outlined in this paper. ISIS may play a facilitating role in the formation of the Virtual Caliphate. In particular, ISIS may provide expertise, funding, or media savvy to bolster the notoriety

of pro-ISIS international attacks, thereby feeding a vicious cycle in which individuals radicalize and launch attacks internationally because of attacks they have observed online.

The Virtual Caliphate would significantly challenge the U.S. and its allies, as they are organized to battle coherent enemy groups that operate in the physical battle space rather than diffuse and instant digital social movements. The formation of such a resilient online jihadi community becomes more likely the longer that ISIS's physical caliphate exists. Once formed, it may outlast ISIS and re-characterize the threat of the global Salafi-jihadi movement.

CONCLUSION

The anti-ISIS campaign is not on a path to block ISIS's global or local influence. ISIS can compel obedience among local populations even after it temporarily loses control of cities. ISIS can infiltrate cities with terrorist attacks and recruitment networks in Iraq, Syria, and regionally, setting conditions for future campaigns. The U.S.-led coalition's primary lever to act against ISIS's influence is to destroy its military and reduce its ability to project a message of hard power. Accomplishing this goal means framing a military campaign that will deny ISIS the ability to return to the cities it once held; to reach populations in new places; to organize terrorist attacks globally; and to resonate with global audiences on the basis of its projected military might. Shy of that objective, current military efforts in Iraq and Syria will not last, and will ultimately be undercut. ISIS will leverage IO to reframe military realities to suit its political objectives.

The U.S. remains the global leader in terms of hard power, but it is losing the influence war as new trends like the Virtual Caliphate emerge. ISIS and al-Qaeda are not the only actors who are challenging these norms. Russia does as well. The U.S. can preserve its national interests and its principles, but it will need to develop a strategic culture that allows for more agile engagement and more creativity to compete with enemies and adversaries that are positioning globally to constrain U.S. influence and freedom of movement. The war will be won by the actors who can mobilize visions and strategies that attract a global audience, aligning IO with military and political action.

The U.S.-led coalition requires a coherent concept of operations to prevent ISIS from developing a new center of gravity. ISIS cannot be fought on a military plane alone.

The coalition's strategy will also fail if it oversimplifies the task of countering ISIS online. Coalition military and IO against ISIS must consider how the group will likely adapt. Simultaneous action against ISIS's IO on the ground and online is necessary to ensure ISIS cannot accelerate its international terror campaign, thereby wittingly or unwittingly fostering the creation of a self-sustaining Virtual Caliphate.

The U.S. and its allies have a number of viable advantages to challenge ISIS, but also key vulnerabilities. The U.S. is uniquely positioned as a global hegemon with outsize military and economic strength. It commands a global network of alliances and fulfills an indispensable role in international organizations. The thriving technology sector and start-up culture in Silicon Valley gives the U.S. influence in the orientation of technology companies, a key component to contemporary IO. The U.S. can leverage its convening power to bring together allies, technology companies, and non-profits to meaningfully address radicalization. Our legacy as a nation of ideals offers a compelling narrative to compete with rival propaganda.

The U.S. is not yet well positioned, however, to systematically respond to robust enemy IO. The U.S. government conducted centralized information campaigns after the Cold War through the United States Information Agency (USIA), which directed Voice of America radio broadcasts, American libraries abroad, and the Fulbright educational exchange program. The Department of State and Broadcasting Board of Governors serve similar functions, but do not directly address propaganda efforts by U.S. adversaries. A cohesive approach to counter-propaganda and strategic messaging could leverage our endogenous advantages as a diverse and successful global power. The U.S. can fight ISIS and the Virtual Caliphate asymmetrically using regional partners in the anti-ISIS coalition, from which resonant messages to counter Salafi-jihadism can flow.

The U.S. should reorient to address both contingencies—the continuation of ISIS's physical caliphate and the manifestation of a virtual one. Countering ISIS's IO will require shifting the group's realities, disrupting technical capacity, and helping present a competing narrative. The U.S. will need to be prepared to employ its military capabilities to change the ground realities that fuel successful IO and leverage its technical capabilities to prevent ISIS from reaching its intended audience. Such a response is not limited to ISIS and similar Salafi-jihadi groups but also extend to other authoritarian adversaries

that use propaganda to achieve their strategic aims. The U.S. must stand up for its objectives and values, and empower its allies and partners to present a compelling alternative narrative.

The U.S. has attempted some of these measures with mixed results. In order to change ground realities, the U.S. has offered materiel support and a limited special operator presence to support on-the-ground partners to force ISIS from cities in Iraq and Syria. Denying ISIS urban refuge has forced ISIS to reconsider its global narrative of territorial legitimacy. The long term political realities of empowering certain partners over others may, however, create more problems than it solves. Furthermore, ISIS sustains its military momentum over time, despite military losses. When facing strong enemies, it can blend in with populations, especially IDPs, and resume its influence operations insidiously. On a global scale, ISIS's mobilized supporter network can blend into peaceful society while maintaining a radicalized presence online, developing plans for attacks, including in the West.

The U.S. has also targeted ISIS's media leaders through airstrikes. Targeting ISIS's media leadership with kinetic strikes can also disrupt its operations by de-linking military and information actions, denying ISIS the initiative, and eliminating thought leaders responsible for ISIS's visionary and religious messaging. The U.S. pursued this strategy in a successful targeted strike against Adnani in August 2016,¹⁵³ as well as other hybrid media and attack coordinators such as Junaid Hussein and Neil Rakash.¹⁵⁴ ISIS media production nevertheless continued after his death, including the launch of a new multi-language publication *Rumiyah* in September 2016.¹⁵⁵

Effective disruption of ISIS's control over its media would require sustained action against the leadership of both ISIS's Base Foundation, which determines the group's overarching media campaigns and themes, and its subsidiary organizations. A single successful targeting operation would not disrupt ISIS's media operations, as ISIS retains a "deep bench" of personnel.¹⁵⁶ Legal authorities to undertake such a campaign are unclear and must be examined thoroughly, particular in terms of whether the U.S. defines ISIS's media operations and cyber activity as hostile acts that can be addressed with force.¹⁵⁷

The U.S. has worked to disrupt ISIS's technological connectivity and ability to disseminate its message. For example, U.S. airstrikes have targeted ISIS's FM

radio towers, disrupting its ability to broadcast its radio content.¹⁵⁸ The U.S. has also worked with technology companies to eradicate ISIS from online platforms, especially Twitter. On Twitter, ISIS-related hashtag channels have gone quiet, popular handles have been taken down, and videos and photos have been removed.¹⁵⁹ In response, ISIS has migrated to other platforms, many of which are hosted outside of the U.S.. These measures are positive steps, but they are insufficient. ISIS is still active online, and the broader threat of a Virtual Caliphate remains despite disruptive measures.

The anti-ISIS coalition and online platform owners cannot feasibly seek to eliminate all pro-ISIS content from social media and search engines. The U.S. should continue to encourage online platform owners to aggressively remove pro-ISIS content, however, including through automation. As of 2016 Facebook and YouTube are reportedly applying the same technology used to identify and automatically remove copyright-protected video content to quickly take down terrorist-related content already identified as unacceptable, such as an ISIS beheading video.¹⁶⁰ This approach does not rely on individual platform users to flag violating content each time it is reposted. Rather, the platforms can automatically scan the unique signature of each video to see if it matches a previously banned item. This approach will not completely remove ISIS-related content from social media websites. It will make reposting ISIS-related content more difficult, however, by forcing ISIS's supporters to digitally manipulate videos each time they wish to re-upload them to popular social media sites.

The U.S. has not yet embraced a cohesive global narrative to counter that of ISIS. There are principled reasons why the U.S. does not engage in IO the way that ISIS does. For example, the U.S. is proud of the fact that it does not lie; it intends to preserve the privacy of its citizens; and it does not engage in propaganda directed at U.S. persons.¹⁶¹ These principles are integral to our way of life and worth retaining. There is also good reason for the U.S. to avoid engaging in a "war of ideas" with ISIS, because such an ideological approach could facilitate ISIS's goal to polarize Muslim and non-Muslim communities. There are, however, legal and principled means by which the U.S. can empower a viable alternative to ISIS's narrative.

Unlike its European allies, the U.S. has not placed as much focus on countering violent extremism (CVE) programs, either at home or abroad, as it has on disrupting ISIS's platforms. The "Global Coalition against Daesh" maintains an informative, up-to-date, and visually

appealing website, that is nonetheless overshadowed by ISIS's compelling narrative and media prowess.¹⁶² On the diplomatic side, the U.S. State Department debuted a Global Engagement Center in 2016, a successor to the Center for Strategic Counterterrorism Communications. The GEC disseminates anti-ISIS messages in Arabic through "Muslim governments, religious leaders, schools, youth leaders and advocacy groups with credibility in local communities."¹⁶³ These partners are currently posting messages emphasizing ISIS's military losses, cruelty, and inability to govern. These efforts are nonetheless dwarfed by ISIS's prolific and provocative messaging. ISIS's resonance online will only truly be dampened if its online audiences are targeted with effective counter-narratives.

The U.S. must conduct a thoughtful reevaluation of our adversaries' IO and craft a cohesive strategy to challenge them. The Coalition must design information campaigns that relate to timely ground events, a hallmark of ISIS's IO. The coalition is conducting strategic messaging, chronicling its military operations, and posting on social media, but not as prolifically or effectively as ISIS's supporters. The U.S. has the military might, convening power, and powerful narrative to help reverse this tide; it must now develop the proper strategy that reflects the values and strength of our global leadership.

NOTES

¹ “Kerry: ISIS targeting airports because it’s ‘desperate,’” CBS News, July 28, 2016, <http://www.cbsnews.com/news/istanbul-airport-attack-secretary-of-state-john-kerry-isis/>.

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² Carl von Clausewitz, *On War*, Ed. and trans. by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press), 1984. Relevant quotes: “Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed.”

³ Frederick W. Kagan, Kimberly Kagan, Jennifer Cafarella, Harleen Gambhir, and Katherine Zimmerman, “U.S. Grand Strategy: Destroying ISIS and al Qaeda, Report One” Institute for the Study of War, January, 2016, <http://www.understandingwar.org/sites/default/files/PLANEX%20Report%201%20--%20FINALFINALFINAL.pdf>; Frederick W. Kagan, Kimberly Kagan, Jennifer Cafarella, Harleen Gambhir, Christopher Kozak, Hugo Spaulding, and Katherine Zimmerman, “U.S. Grand Strategy: Destroying ISIS And Al Qaeda, Report Two,” Institute for the Study of War, January, 2016, <http://www.understandingwar.org/sites/default/files/PLANEX%20Report%202%20FINALFINAL.pdf>; Jennifer Cafarella, Harleen Gambhir, and Katherine Zimmerman, “U.S. Grand Strategy: Destroying ISIS And Al Qaeda, Report Three,” Institute for the Study of War, February, 2016, <http://www.understandingwar.org/sites/default/files/PLANEX%20Report%203%20FINAL.pdf>.

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¹⁹ **Presence, Posture and Profile:** "Although not considered a traditional information-related capability, units often use presence and posture of other combined arms assets to deliver a commander's message to an audience...Conducting a Soldier and leader engagement with Soldiers carrying weapons in full battle uniform sends a different message from sending unarmed Soldiers in standard uniform." (FM 3-13)

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²⁴ **Civil-Military Operations:** "CMO activities establish, maintain, influence, or exploit relations between military forces, governmental and nongovernmental civilian organizations and authorities, and the civilian populace in a friendly, neutral, or hostile operational area in order to achieve US objectives." (JP 3-13)

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²⁷ These comparisons to U.S. military doctrine are useful to explain the influence-related outcomes of ISIS's governance and outreach. They do not accurately explain

the relationship between ISIS's governance and military forces, however. ISIS manages its administrative, *hisbah*, and internal security personnel separately from its military forces. ISIS's local governance and outreach can support military objectives but is not directly executed by military personnel.

²⁸ Caris and Reynolds, "Middle East Security Report 22."; "Islamic State suicide bombers strike in Iraqi refinery town," Reuters, July 5, 2015, <http://www.reuters.com/article/us-mideast-crisis-iraq-idUSKCN0PF0EA20150705>.

²⁹ **Key Leader Engagement:** "KLEs are deliberate, planned engagements between US military leaders and the leaders of foreign audiences that have defined objectives, such as a change in policy or supporting the JFC's objectives. These engagements can be used to shape and influence foreign leaders at the strategic, operational, and tactical levels, and may also be directed toward specific groups such as religious leaders, academic leaders, and tribal leaders; e.g., to solidify trust and confidence in US forces." (JP 3-13); "IS Video Focuses On Structure Of The 'Caliphate,' Provinces And Committees Inside And Outside Iraq And Syria," SITE Intelligence Group, July 6, 2016, <https://news.siteintelgroup.com/Jihadist-News/is-video-focuses-on-structure-of-the-caliphate-provinces-and-committees-inside-and-outside-iraq-and-syria.html>.

³⁰ Harleen K. Gambhir, "Dabiq: The Strategic Messaging Of The Islamic State," Institute for the Study of War, August 15, 2014, http://www.understandingwar.org/sites/default/files/Dabiq%20Backgroundunder_Harleen%20Final.pdf.

³¹ **Public Affairs:** "PA comprises public information, command information, and public engagement activities directed toward both the internal and external publics with interest in DOD. External publics include allies, neutrals, adversaries, and potential adversaries." (JP 3-13)

³² Contact the author for more information: Charlie Winter, "ISIS' offline propaganda strategy," Brookings Institution, March 31, 2016, <http://www.brookings.edu/blogs/markaz/posts/2016/03/31-isis-propaganda-strategy-winter>.; "ISIS Newsletter Touts Role Of The Organization's 'Media Points' In Indoctrination and Recruitment," MEMRI Cyber & Jihad Lab, March 10, 2016, [\[touts-role-of-the-organizations-media-points-in-indoctrination-and-recruitment/\]\(http://www.brookings.edu/blogs/markaz/posts/2016/03/31-isis-propaganda-strategy-winter\).](http://cjlaboratory.org/lab-projects/tracking-jihadi-terrorist-use-of-social-media/isis-newsletter-</p>
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³⁷ Pamela Engel, "How ISIS monitors and restricts internet access in the 'caliphate,'" Business Insider, November 7, 2015, <http://www.businessinsider.com/how-isis-governs-its-caliphate-2015-11>.

³⁸ **Operations Security:** "OPSEC is a standardized process designed to meet operational needs by mitigating risks associated with specific vulnerabilities in order to deny adversaries critical information and observable indicators. OPSEC identifies critical information and actions attendant to friendly military operations to deny observables to adversary intelligence systems." (JP 3-13); [WWW.UNDERSTANDINGWAR.ORG](https://www.washingtonpost.com/world/national-security/inside-the-islamic-states-propaganda-machine/2015/11/20/051e997a-8ce6-11e5-acff-</p>
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³⁹ **Cyberspace Operations:** “CO are the employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace. Cyberspace capabilities, when in support of IO, deny or manipulate adversary or potential adversary decision making, through targeting an information medium (such as a wireless access point in the physical dimension), the message itself (an encrypted message in the information dimension), or a cyber-persona (an online identity that facilitates communication, decision making, and the influencing of audiences in the cognitive dimension).” (JP 3-13)

⁴⁰ **Joint Electromagnetic Spectrum Operations:** “JEMSO, consisting of EW [Electronic Warfare] and joint EMS [Electro-Magnetic Spectrum] management operations, enable EMS-dependent systems to function in their intended operational environment. EW is the mission area ultimately responsible for securing and maintaining freedom of action in the EMS for friendly forces while exploiting or denying it to adversaries.” (JP 3-13); *see also* **Cyber Electromagnetic Activities:** “activities leveraged to seize, retain, and exploit an advantage over adversaries and enemies in both cyberspace and the electromagnetic spectrum, while simultaneously denying and degrading adversary and enemy use of the same and protecting the mission command system (ADRP 3-0).” (FM 3-13); Stephen Kalin, “Islamic State seeks news blackout in Mosul as Iraqi army nears,” Reuters, May 6, 2016, <http://www.reuters.com/article/us-mideast-crisis-iraq-communications-idUSKCN0XVOXF>.

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⁴³ **Military Information Support Operations:** MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. MISO focuses on the cognitive dimension of the information environment where its TA includes not just potential and actual adversaries, but also friendly and neutral populations.”

(JP 3-13)

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⁴⁸ Caris and Reynolds, “Middle East Security Report 22.”

⁴⁹ Kevin Casey and Stacey Pollard, “The Islamic State’s Strategy in Libya,” Carnegie Endowment for International Peace, March 25, 2015, <http://carnegieendowment.org/sada/?fa=59488>.

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⁵³ **Military Deception:** "MILDEC can be characterized as actions executed to deliberately mislead adversary decision makers, creating conditions that will contribute to the accomplishment of the friendly mission. While MILDEC requires a thorough knowledge of an adversary or potential adversary's decision-making processes, it is important to remember that it is focused on desired behavior. It is not enough to simply mislead the adversary or potential adversary; MILDEC is designed to cause them to behave in a manner advantageous to the friendly mission, such as misallocation of resources, attacking at a time and place advantageous to friendly forces, or avoid taking action at all."

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