

The Chemical, Biological, Radiological, and Nuclear Terrorism Threat from the Islamic State

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Chemical, biological, radiological, and nuclear (CBRN) terrorism emerged as a significant concern to many American policymakers after 9/11. However, although it remains a stated concern in political rhetoric, real concern appears to have waned among some. For example, in their 2005 study, authors Sammy Salama and Lydia Hansell discounted a serious terrorist CBRN threat from al-Qaida due to a general lack of capability to produce the weapons and the potential backlash from using such cruel methods.¹ Notwithstanding, while the same is likely true of the Islamic State (IS) today, the demonstrated ruthlessness and extensive resources of this nonstate actor call for a closer examination of the viability as well as the probability of an IS-sponsored CBRN threat.

CBRN Versus Weapons of Mass Destruction

This article seeks to analyze the threat of IS using CBRN weapons—rather than *weapons of mass*

destruction (WMD)—in warfare or acts of terror. Though the latter term is often equated with CBRN, WMD is a broad and ambiguous term that does not



Iraqi Police discovered this improvised explosive device on 7 November 2005 in eastern Baghdad, Iraq, and disarmed it before it could be detonated in a terrorist attack. (Photo courtesy of U.S. Army)

address the specific tool, its size or amount, its yield, or the purpose of its use. WMD describes an effect, not a specific tool. To clarify the difference further, not all CBRN elements may cause “mass destruction,” and many conventional arms not considered WMD are more destructive than CBRN weapons. In

this article, I will assess the viability of the threat of IS using various types of CBRN weapons.

Ideological Motivation Underpinning Pursuit of CBRN Weapons

The rise and overt brutality of IS caught much of the world by surprise. Beginning as a branch of Abu Musab al-Zarqawi’s al-Qaida terrorist group in Iraq, IS has evolved into a pseudo-state led by a conventional army that frequently resorts to terrorism as a controlling mechanism and as a complementary means of



A militant Islamist fighter riding a trailer mounted with a captured missile gestures as he takes part in a military parade along the streets of Syria's northern Raqqa Province 30 June 2014. The capture of systems capable of delivering CBRN weapons poses a serious threat to the United States and its allies. (Photo by Reuters)

conquest.² Moreover, IS seeks to expand its caliphate through whatever means it can.³

IS is attempting to acquire and integrate elements of a CBRN arsenal to support its uncompromising political objectives. Any success IS has in acquiring such weapons will increase the threat it poses to regional stability, local populations, and opposition forces. Therefore, I will explore several factors to assess the extent of the CBRN threat from IS as follows: interest, attainability, efficacy, and acceptability.

Interest

The extent of IS's interest in CBRN weapons is revealed by its past behavior, its religious motives, and the lack of an effective international deterrent to its activities.

According to several credible news sources, IS has used chemical warfare agents in the past.⁴ The U.S. Army Training and Doctrine Command identifies the previous use of a chemical warfare agent as indicating the potential for a future CBRN attack.⁵ Al-Qaida experimented with the weaponization and use of biological and chemical agents since the 1990s. In "Does

Intent Equal Capability? Al-Qaida and Weapons of Mass Destruction," Salam and Hansell describe how al-Qaida's doctrinal texts, instruction manuals, and social media posts document al-Qaida's intention to develop and use biological and chemical agents, radiological dispersion devices (RDDs), and nuclear weapons.⁶ IS, as al-Qaida's more conservative and brutal spin-off, has publicly expressed in its propaganda its intention to acquire and use them.⁷

Moreover, IS appears dispassionate in its use of such weapons, including callous disregard for the collateral damage to innocents. This stems from its interpretation of ultraconservative Salafi jihadism that aims to establish a caliphate by force and spread its control without regard for human life by whatever means necessary, beginning with the removal of so-called apostate regimes in the Middle East, and followed by a program of merciless religious purification of the Muslim community.⁸ These goals, compounded by the pious obsession of those who believe that IS's war portends the "end times" prophesied in Quranic text, create a completely incompatible world view between IS and any of its

opponents: al-Qaida, Shia, diverse non-Muslim ethnic groups, or state governments. IS's uncompromising commitment to its objectives suggests the futility of attempting to negotiate with it. Its obsession foreshadows instead a brutal fight to the end, in which IS likely would employ any CBRN weapons it could acquire. IS's drive to establish a caliphate also suggests that it would, for now, put its highest priority on targeting opposition forces and *infidel* populations in the Middle East rather than Europe or the United States. Nevertheless, the growth of IS influence in Western countries could lead to opportunities to smuggle some developed CBRN weapons into Western countries to expand its attacks into the West.⁹

IS perhaps has felt it could get away with using chemical weapons because it perceives itself free from effective outside interference in "moderate" use of CBRN weapons. One reason is that the international community did not seriously punish Bashar al-Assad for his use of chemical weapons against Syrian rebels.¹⁰ Moreover, its leaders may feel it can operate with impunity since forces arrayed against it currently do not threaten IS with total destruction. Though IS has lost some terrain, it has proven to be tenacious.

IS and the global community know the West is war-weary and would likely be hesitant to commit heavily to another intervention in the Middle East, even if provoked and taunted by IS using CBRN weapons. This IS perception has been further emboldened by the March 2016 announcement by Russian President Vladimir Putin of withdrawals of Russian forces from Syria. This also could be perceived as signaling Russian reluctance to become further involved in the situation even if IS were to use a CBRN device.

If the United States and Russia were interested in intervening to prevent IS from using CBRN weapons, the question would become, "What can realistically be done to stop their use?" Most actors outside IS (including the United States) do not possess sufficient intelligence on it to craft a feasible and confident deterrent—one that would be expected to de incentivize use of CBRN weapons.¹¹ Also, IS's occupation of urban centers and its presence among civilian populations foster concerns regarding possible collateral damage. Such concerns prevent nations like the United States from using massive bombing campaigns to target IS—and from holding a credible nuclear deterrent against potential CBRN

weapons use. Additionally, IS cares little about international taboos against chemical or nuclear weapons use because it is not interested in participating in the international nation-state system. As a pseudostate, IS uniquely straddles the lines of rationale of state governments (e.g., governing within its borders, and funding itself) and of terrorist groups (e.g., a desire to recruit and mobilize the Sunni Muslim population).

Clearly, IS is interested in weapons that can effect massive destruction and terror. However, its sweeping statements and ambitious objectives do not help narrow the scope of the types of weapons it might use. The past use of chemical weapons identifies a pattern of use of specific tools. Assessing the feasibility of acquiring and the usefulness of implementation of CBRN weapons will help refine the threat assessment.

Attainability

The most practical challenges to using CBRN weapons arise from the acquisition or development, weaponization, and delivery of the weapons. At each stage, nuclear weapons are ruled out as a viable threat. International tracking systems of enriched uranium tend to ensure against IS's ability to acquire fissile material, and IS has no access to the amounts of low-grade uranium and processing facilities required to manufacture its own fissile material. Additionally, acquisition of a "loose nuke" from a country such as Pakistan is highly unlikely. There would be no incentive for a state to sponsor a weapon transfer to IS due to the unpredictability of how IS would use it. Additionally, there is an extreme likelihood of successful attribution, and subsequent retribution by the United States and other nations, against the supplier.¹²

Certain radiological materials that would be useful for an RDD, or "dirty bomb," are potentially more accessible. An RDD requires less quantity and a lower grade of radioactive material than is needed for a nuclear weapon. However, IS would also need significant logistical measures for safe materiel transport and handling, making this an unappealing option of CBRN weapons. In 2014, IS was reported to have acquired ninety pounds of low-grade uranium that might be of limited use for a dirty bomb. However, it would be hard for IS to acquire and appropriately handle radioactive material such as cesium-137, which could cause effects quickly and could be dissolved in water for mass dissemination.¹³



Medics assigned to 2nd Battalion, 502nd Infantry Regiment, Task Force Strike, along with other coalition partners, evaluate a simulated casualty during chemical, biological, radiological, and nuclear exposure training in Erbil, Iraq, 23 May 2016. This was among the first training exercises the regiment's soldiers conducted with their coalition partners during Operation Inherent Resolve. This training is an integral part of multinational efforts to train Iraqi Security Force personnel to defeat the Islamic State. (Photo by 1st Lt. Daniel Johnson, U.S. Army)

Nonetheless, vulnerabilities in legitimate states' control of radioactive material may present opportunities for IS. As IS exploits its territorial holds over areas with civil infrastructure and gains more recruits abroad, it might be able to steal cesium-137, used in cancer therapies, from hospitals. Law enforcement has intercepted attempts by criminal organizations to sell cesium-137, believed taken from Russian hospitals, to IS.¹⁴

Illicit trade offers IS potential access to materials not currently within their reach. There are concerns in Iraq and some Western countries over reportedly stolen iridium-192, and Belgian authorities have speculated that IS operatives are searching for places in Europe to steal radioisotopes to use in an RDD.¹⁵

IS's control over territory provides it access to industrial areas with toxic industrial chemicals and laboratory facilities that could enable the development of biological toxins or chemical agents. Dual-use chemicals such as chlorine are relatively easy to acquire and can be disseminated via aerosols and other crude, easily developed

methods. IS's geographical location in Syria and Iraq, countries that likely hold undisclosed stockpiles of old chemical munitions, also could facilitate IS's acquisition of complete chemical munitions that it could deliver via artillery systems. As long as IS holds territory, it can enjoy a relatively safe haven for unimpeded experimentation with CBRN weapons. However, intelligence leaks present a clear vulnerability. A recently captured IS chemical weapons specialist provided detailed reports on IS's chemical weapons program, resulting in allied air strikes against key targets.¹⁶

Despite some freedom for experimentation, development of deliverable biological toxins would remain very difficult. While IS could easily get strains of toxins like anthrax, very sophisticated technology and expertise are required to produce it into a powdered form for maximum effect.¹⁷ Chemical agents are generally easier to manufacture and weaponize than biological agents.

Two resources other than territory also enable IS's potential to attain CBRN capabilities: money and



Soldiers from the *Yanshuf* (Owl) Battalion of the Israeli Army Defense Force, specializing in CBRN warfare, conduct training 1 November 2010 at the Israeli-occupied Syrian Golan Heights, during the final military exercise of the Squad Commanders Training Course. (Photo by Ori Shifrin, Israeli Defense Force Spokesperson's Film Unit via Wikimedia Commons)

recruits. IS has enormous financial resources, which is unusual for a terrorist group. In February 2015, revenues from oil assets were estimated at \$1–2 million per day, and it uses ransoms, taxes, and human trafficking to raise more.¹⁸ This provides ample funding for its priority missions of fighting and governing while also allowing investment in developing a CBRN program. IS also has a major advantage over other terrorist groups in the expertise of its personnel due to its size. While the core of al-Qaida holds only a few hundred members, in the spring of 2015, IS was estimated to have over thirty thousand fighters with diverse backgrounds from over eighty countries.¹⁹ IS's unprecedented recruitment ability provides a remarkable pool of expertise from which it can draw. This means that IS can find people with the necessary skills to help create weapons while also being able to absorb and replace losses from dangerous experimentation.

Efficacy

Understanding the usefulness of CBRN weapons to IS requires considering conventional warfare and terrorism since IS has shifted across the spectrum

between terrorist group and pseudo-state. Armies can use CBRN agents, particularly chemical weapons, for area denial against enemy forces and to slow enemy movement.²⁰ However, they are inconsistent weapons at best. Dynamic weather conditions such as humidity, temperature, and wind can have a significant effect on the potency and dispersion of agents.²¹ Even if a military possessed the technical capacity to weaponize chemical agents, those weapons are very hard to use to reap mass casualties, as is evident in the relatively low death rates of IS chemical attacks.²² Agents that deliver well over a large area (typically nonpersistent gases) dissipate quickly. Agents that have more long-lasting effects (persistent liquids) do not affect as wide an area and deny all parties, including the source military, access to that terrain.

Most biological toxins are very difficult to engineer and even more difficult to control, making them unfavorable for use in conventional warfare. Blowback during production and dissemination is a concern for both chemical and biological weapons. The risk of exposure to friendly forces is high due to the difficulty of detecting toxins and the communicability of diseases.

Out of an instinct for self-preservation, armies tend to avoid biological warfare.

While I have ruled out nuclear weapons as a viable threat, IS likely is pursuing the capability for an RDD.

However, any dirty bomb that IS detonates will likely be more for experimentation or for inflicting terror rather than for inflicting heavy casualties. The uranium IS currently possesses likely is too low grade to be very effective, but even highly radioactive material poses efficacy issues. Dirty bombs are peculiar devices that instill fear in the public but in reality are not very different from any normal bomb. Radiation exposure is related to material amount, proximity, and time.²³

A bomb's explosion would disperse its radioactive material in small pieces over a wide area. People not killed or seriously injured in the blast would move away from the site, removing them from more damaging exposure. The greatest physical threat comes from the explosion itself and from potential inhalation of radioactive dust particles in the area.²⁴ RDDs work best for area contamination and psychological impact. The public is afraid of the effects of radiation. Although the physical damage caused by an RDD would be limited, its detonation or release (or even a false claim of an RDD detonation) would instill fear in the population and drain resources from any government body trying to detect and decontaminate the area.

Tactical CBRN weapons can have strategic effects through deterrence and intimidation, which can support the perpetrator's political agenda. Here, the

ambiguous term "WMD" works in IS's favor by attaching a stigma of horror and devastation to the public's view of any CBRN tool. IS could use a small chemical weapons arsenal to deter intervention by foreign powers and to intimidate a rebellious domestic population under its control. Use of CBRN weapons could provoke greater sectarian fighting while also discrediting other opposition groups and governments by exposing their inability to protect their populations from suffering, all of which would serve IS's objectives. These examples of strategic effects point to IS leveraging CBRN weapons as an instrument of terror in the region.

Psychological effects, especially fear, are key elements of IS's governance and expansion. The suffering CBRN weapons could cause, and mystery surrounding them, can intimidate potential opponents into submission or desertion. IS likely will continue to use chemical weapons and will attempt to branch out to other

CBRN methods to reinforce fear of resistance as well as to draw attention from the news media. As IS continues to rely upon media coverage to spark recruitment and influx of foreign fighters, CBRN weapons could be a means for it to stay relevant and visible, and to recruit individuals attracted to IS's successes.

Based on IS's probable lack of CBRN protective equipment and its desire to continue expanding the boundaries of the caliphate, IS most likely would resort to using chemical weapons for conventional tactical purposes primarily as a means to slow or hold off a



Army and Navy explosive ordnance disposal technicians prepare unexploded ordnance for demolition at a safe disposal area 11 October 2003 in Baghdad, Iraq. The joint teams work diligently to destroy the sizable quantities of ordnance to reduce and ultimately eliminate weapons and ammunition available to insurgents for use against coalition troops. (Photo by Journalist Seaman Erica Gardner, U.S. Navy)

major enemy ground offensive approaching its defenses. However, the psychological effects for population control and recruitment hold CBRN weapons' greatest value to IS. For a force that is willing to use them, CBRN weapons are likely a psychological weapon, or a measure of desperation.

Acceptability

I have outlined the feasibility and purpose of IS acquiring and using CBRN weapons. The final step in the threat assessment is determining the acceptability within IS to resort to these methods of violence. IS has a history of barbarism paired with feigned religious justifications that reveal no qualms with using such weapons, although a logical analysis of the response costs by IS leadership ought to spark some hesitancy.

IS uses acts of terror on a daily basis as a means of statecraft and conquest. These include the systematic rape and enslavement of women, agonizing public executions (e.g., beheadings, immolations, and crucifixions), and suicide bombings.²⁵ Next to these, the effects of some chemical weapons may seem unremarkable to IS fighters, except in the aura of terror that surrounds the WMD label. IS relies on a *fatwa* (an Islamic religious ruling) to provide religious legitimacy for the use of WMD.²⁶ With many IS fighters holding apocalyptic world views, CBRN weapons would just be other necessary tools for establishing the kingdom of God on Earth. Clearly, IS holds no moral reservations about using CBRN weapons against its enemies.

While IS leadership and fighters would find the suffering caused by CBRN acceptable, they may not welcome certain response costs that would be inflicted by foreign powers or even the local populations.

Nations like the United States and local communities find the use of CBRN weapons abhorrent, and IS most likely does not want to provoke a more significant Western involvement in the region at this time as it continues its struggle to shore up territorial control. Unlike usual terrorist groups, IS perceives and administers itself as a state with infrastructure, territory, and a military, which present vulnerabilities to an intensive Western conventional military confrontation.²⁷ The West's willingness to intervene is limited, and IS would benefit from the West's maintaining that preference because IS would avoid becoming the target of European and American armies. Based on its use of violence, acceptable use of CBRN weapons for IS includes periodic but limited use as an element of psychological warfare to maintain order and discipline, to incapacitate and impede non-Western opponent forces, and in a final measure of conventional defense.

Conclusion

With IS's vicious tactics becoming commonplace and a limited international political will to step in, periodic low-level use of chemical weapons is becoming relatively routine in Iraq and Syria. IS has displayed interest in all aspects of CBRN weapons and currently has the capacity to acquire and effectively use chemical agents. Though it may experiment with radiological and biological means, chemical weapons pose the most likely threat to IS's enemies. ■

The views expressed in this article are the author's and do not necessarily reflect the views of Office of Management and Budget, the administration, or the U.S. government.

Biography

Carole House is a former U.S. Army captain who served as a chemical officer and a military intelligence officer until November 2014. She is currently a presidential management fellow in the Office of Management and Budget. She holds a BA in international affairs from the University of Georgia and an MA in security studies from Georgetown University. She deployed to Kandahar Province, Afghanistan, from 2012 to 2013 in support of Operation Enduring Freedom.

Notes

1. Sammy Salama and Lydia Hansell, "Does Intent Equal Capability? Al-Qaeda and Weapons of Mass Destruction," *Nonproliferation Review* 12, no. 3 (November 2005): 643–44.
2. Daniel Byman and Jennifer Williams, "ISIS vs. Al Qaeda: Jihadism's Global Civil War," *The National Interest* online, 24 February 2015, accessed 19 July 2016, <http://www.nationalinterest.org/feature/isis-vs-al-qaeda-jihadism%E2%80%99s-global-civil-war-12304>; Audrey K. Cronin, "ISIS Is Not a Terrorist Group: Why Counterterrorism Won't Stop the Latest Jihadist Threat," *Foreign Affairs* (March–April 2015), accessed 19 July 2016, <https://www.foreignaffairs.com/articles/middle-east/isis-not-terrorist-group>.
3. William McCants, *The ISIS Apocalypse: The History, Strategy, and Doomsday Vision of the Islamic State* (New York: St. Martin's Press, 2015), 1, 124.
4. In 2014–2016, IS used chlorine and mustard gas against civilians, Kurds, and other rebels. See Frank Gardner, "IS, al-Qaeda, and How Jihad Uses Chemical Weapons," BBC News website, 16 September 2015, accessed 19 July 2016, <http://www.bbc.com/news/world-middle-east-34262447>; Associated Press, "Iraq Officials Say Islamic State Chemical Attacks Kill Child, Wound 600," Fox News website, 12 March 2016, accessed 19 July 2016, <http://www.foxnews.com/world/2016/03/12/iraq-officials-say-islamic-state-chemical-attacks-kill-child-wound-600.html>.
5. Field Manual (FM) 3-11.14, *Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical Vulnerability Assessment*, obsolete, (Washington, DC: U.S. Government Printing Office [GPO], 2004), cited in U.S. Army Training and Doctrine Command (TRADOC), TRADOC G2, Supplemental Handbook 1.04 [to DCSINT Handbook No. 1], *Terrorism and WMD in the Contemporary Operational Environment* (Fort Eustis, VA: TRADOC, 20 August 2007), B-3, accessed 18 July 2016, <https://www.hsdl.org/?view&did=482640>.
6. Salama and Hansell, "Does Intent Equal Capability?" 618–21, 631.
7. "The Perfect Storm," *Dabiq* 9, 2015, 74–77, accessed 20 July 2016, <https://azelin.files.wordpress.com/2015/05/the-islamic-state-e2809cdc481biq-magazine-9e280b3.pdf>; Adam Withnall, "ISIS's Dirty Bomb: Jihadists Have Seized 'Enough Radioactive Material to Build Their First WMD,'" *The Independent* website, 10 June 2015, accessed 19 July 2016, <http://www.independent.co.uk/news/world/middle-east/isis-dirty-bomb-jihadists-have-seized-enough-radioactive-material-to-build-their-first-wmd-10309220.html>.
8. Byman and Williams, "ISIS vs. Al Qaeda."
9. Jack Moore, "CIA Director: ISIS Has Used and Can Continue to Make Chemical Weapons," *Newsweek*, 12 February 2016, accessed 19 April 2016, http://www.newsweek.com/cia-director-isis-has-capability-continue-chemical-weapons-use-425749?piano_t=1.
10. Adam Entous, "Assad Chemical Threat Mounts," *Wall Street Journal*, 28 June 2015, accessed 19 April 2016, <http://www.wsj.com/articles/assad-chemical-threat-mounts-1435535977>.
11. Robert Caruso, "Here's How the U.S. Can Build the Intelligence Capabilities Needed to Defeat ISIS," *Business Insider* website, 8 September 2014, accessed 19 July 2016, <http://www.businessinsider.com/the-us-needs-better-humint-to-beat-isis-2014-9>.
12. John Mueller, "The Atomic Terrorist?" *The CATO Institute's Nuclear Proliferation Update*, January 2010, accessed 19 July 2016, http://object.cato.org/sites/cato.org/files/pubs/pdf/npu_january2010.pdf; Keir Lieber and Daryl Press, "Why States Won't Give Nuclear Weapons to Terrorists," *International Security* 38, no. 1 (2013): 104, accessed 19 July 2016, http://www.mitpressjournals.org/doi/pdf/10.1162/ISEC_a_00127.
13. Alexander Smith, "Nuclear Experts Play down Threat of Uranium Stolen by ISIS," NBC News, 10 July 2014, accessed 19 July 2016, <http://www.nbcnews.com/storyline/iraq-turmoil/nuclear-experts-play-down-threat-uranium-stolen-isis-n152926>.
14. Matthew Weaver and Associated Press, "FBI Foils Plot to Sell Nuclear Material in Moldova," *The Guardian* online, 7 October 2015, accessed 19 April 2016, <http://www.theguardian.com/world/2015/oct/07/fbi-foils-plot-sell-nuclear-material-moldova-isis>.
15. Ahmed Rasheed, Aref Mohammed, and Stephen Kalin, "Radioactive Material Stolen in Iraq Raises Security Concerns," Reuters website, 17 February 2016, accessed 19 July 2016, <http://www.reuters.com/article/us-mideast-crisis-iraq-radiation-idUSKCN-0VQ22F>; Patrick Malone and R. Jeffrey Smith, "The Islamic State's Plot to Build a Radioactive 'Dirty Bomb,'" *Foreign Policy*, 29 February 2016, accessed 19 April 2016, <http://foreignpolicy.com/2016/02/29/the-islamic-states-plot-to-build-a-radioactive-dirty-bomb/>.
16. Helene Cooper and Eric Schmitt, "ISIS Detainee's Information Led to 2 U.S. Airstrikes," *New York Times* website, 9 March 2016, accessed 19 July 2016, http://www.nytimes.com/2016/03/10/world/middleeast/isis-detainee-mustard-gas.html?_r=0.
17. Amanda Onion, "Lessons from Failed 1993 Biological Attack," ABC News, 5 October 2015, accessed 19 July 2016, <http://abcnews.go.com/Technology/story?id=98249>.
18. Ashley Fantz, "How ISIS Makes (and Takes) Money," CNN, 19 February 2015, accessed 19 July 2016, <http://www.cnn.com/2015/02/19/world/how-isis-makes-money/>.
19. Cronin, "ISIS Is Not a Terrorist Group."
20. Persistent agents are used for area denial and nonpersistent agents as an antipersonnel weapon.
21. Joint Publication 3-11, *Operations in Chemical, Biological, Radiological, and Nuclear Environments* (Washington, DC: U.S. GPO, 2013), A-2, I-4.
22. Associated Press, "Chemical Attacks Kill Child, Wound 600."
23. United States Nuclear Regulatory Commission (NRC), "Fact Sheet on Dirty Bombs," NRC Library, last modified 12 December 2014, accessed 19 July 2016, <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/fs-dirty-bombs.html>.
24. Office of Public Health Preparedness and Response, "Frequently Asked Questions about Dirty Bombs," Center for Disease Control and Prevention, last modified 17 October 2014, accessed 19 April 2016, <http://emergency.cdc.gov/radiation/dirtybombs.asp>.
25. Rukmini Callimachi, "ISIS Enshrines a Theology of Rape," *New York Times* website, 13 August 2015, accessed 19 July 2016, http://www.nytimes.com/2015/08/14/world/middleeast/isis-enshrines-a-theology-of-rape.html?_r=0; Cronin, "ISIS Is Not a Terrorist Group."
26. Herald Doornbos, "Found: The Islamic State Terror Laptop of Doom," *Foreign Policy*, 28 August 2014, accessed 19 July 2016, <http://foreignpolicy.com/2014/08/28/found-the-islamic-states-terror-laptop-of-doom/>.
27. Shiv Malik, "The Isis Paper: Leaked Documents Show How Isis Is Building Its State," *The Guardian* online, 7 December 2015, accessed 19 July 2016, <http://www.theguardian.com/world/2015/dec/07/leaked-isis-document-reveals-plan-building-state-syria>.