



U.S. Air Force F-22 Raptor aircraft after conducting airstrikes in Syria as part of large coalition to strike Islamic State of Iraq and the Levant targets, September 2014 (DOD/Jefferson S. Heiland)

Three Approaches to Center of Gravity Analysis

The Islamic State of Iraq and the Levant

By Daniel J. Smith, Kelley Jeter, and Odin Westgaard

Since the establishment of the center of gravity (COG) concept as a fundamental planning factor in joint military doctrine, its proper identification has been considered crucial in successful attainment of desired objectives. Joint Publication 5-0, *Joint Operation Planning*, states,

“This process cannot be taken lightly, since a faulty conclusion resulting from a poor or hasty analysis can have very serious consequences, such as the inability to achieve strategic and operational objectives at an acceptable cost.”¹

Since its inception as a core planning tenet, the process for determining

COGs has been a point of contention and debate. Currently, the definition of *center of gravity* and the process for determining it are outlined in joint doctrine, specifically in Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, JP 3-0, *Joint Operations*, and JP 5-0, *Joint Operation Planning*,

as encompassed in the Joint Operation Planning Process (JOPP) within those publications. Speculation on proper COG determination has given rise to other COG methodologies, which have both questioned and challenged established doctrine for COG determination. Therefore, the objective of this article is to compare and contrast different COG determination methodologies to reveal strengths and weaknesses of each and ultimately to make recommendations for changes to joint doctrine. To accomplish this objective, three different COG methodologies are applied to the current Islamic State of Iraq and the Levant (ISIL)² problem set: Dale C. Eikmeier's COG determination method, James P. Butler's Godzilla COG methodology, and the Critical Factors Analysis, outlined in the JOPP.³ Findings of the analyses will be critically compared to produce recommendations for changes in joint doctrine COG determination.

When ISIL initiated large-scale offensive operations into Iraq in early June 2014, it propelled itself onto the global stage. While other contemporary Islamic militant groups have stated similar objectives for establishing an Islamic caliphate,⁴ ISIL is unique in that it has made significant progress in pursuit of that goal by seizing control of large amounts of territory in Iraq and Syria. With manning estimated at around 20,000 to 31,500,⁵ ISIL has been forcefully seizing territory in a conventional military fashion (while still sometimes employing contemporary insurgency-type tactics). In doing so, ISIL has been acquiring more supplies and sources of revenue to fuel its operations. The following COG methodologies will not only explicate each one's structured processes, but also reveal other essential variables in detail.

The Eikmeier COG Methodology

Joint Publication 5-0 defines *center of gravity* as “a source of power that

provides moral or physical strength, freedom of action, or will to act.”⁶ Eikmeier's proposed COG definition states that “the center of gravity is the primary entity that possesses the inherent capability to achieve the objective.”⁷ With this COG specificity, Eikmeier's method is comprised of six steps:⁸

- Identify the desired ends or objectives.
- Identify the ways to achieve the ends, and select the one that evidence suggests is most likely to work. (Ways are actions, so they are expressed as verbs.) Then select the most elemental or essential action—that selection is the critical capability. The ways are critical actions that will achieve the endstate. Critical capabilities (CC) are the same verbs expressed in the ways; therefore, ways equal critical capabilities.
- List the means (critical requirements) needed to enable and execute the ways (critical capabilities).
- Select from the list of means the entity (noun) that possesses the innate way (CC) to tangibly achieve the end. This selection is the center of gravity.
- From the remaining items on the list, select those that are critical for the execution of the critical capability, which are the critical requirements.
- Complete the process by identifying those critical requirements vulnerable to adversary actions.

Once these steps are complete, the results of the COG analysis must pass the “does/uses” test; that is, the center of gravity is the means (critical requirement) that has the intrinsic force necessary, which “does” the action (critical capability), but it “uses” or requires other resources (means) to “do” the action. An example is the game of football. (For simplicity's sake, the example focuses only on offense.)

- Step one: identify ends. The grand strategic objective is to win a championship. Other strategic objectives are winning games or winning a division. Operational objectives are to score touchdowns. Tactical objectives are scoring first downs.
- Step two: the ways (critical capabilities) to achieve the endstate, which are expressed as verbs. Strategically, they would include *assembling* a winning team, *recruiting/retaining* the right players, *emplacing/substituting* the right players, *calling* the right calls. Strategically, the types of offense that coaches *employ* and their *decisionmaking* both determine operationally who will *run, pass/catch, block, kick*, and so forth.
- Step three: means (critical requirements) required to accomplish the ways. Strategically, coaches and their supporting staffs are the means necessary to manage, organize, train, and supply a football team. Operationally, the means are, but are not limited to, adequate equipment, practices, physical training facilities, morale, and the players themselves.
- Step four: entity (noun) from the list of means that intrinsically possesses the capabilities to achieve the ends. From the list, only the players can *run, pass, catch*, and *execute* plays—they are the operational COG. The coaches possess the inherent capability to decide which players will *play* (*run, pass*, and so forth); therefore, they are the strategic COG.
- Step five: critical requirements essential for the centers of gravity to reach the ends. These include recruiting, player placement, practices, fitness facilities/programs, and morale. While these requirements are essential, they are not centers of gravity. Coaches choose/insert players, and players win games.

Now that we understand this methodology, we apply it to determine ISIL's center of gravity (figure 1).

Step One: Identifying ISIL's Ends.
The group's identified strategic objective

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since 2014 has been the establishment of an Islamic caliphate in which it possesses authority over Muslims worldwide and aims to bring most Muslim-inhabited regions of the world under its political control, beginning with the Levant region, which generally includes Syria, Jordan, Israel, Palestine, Lebanon, Cyprus, and part of southern Turkey.⁹ On June 29, 2014, ISIL declared the establishment of a caliphate. Its current leader, Abu Bakr al-Baghdadi, who has renamed himself Amir al-Mu'minin Caliph Ibrahim, was named as caliph.¹⁰

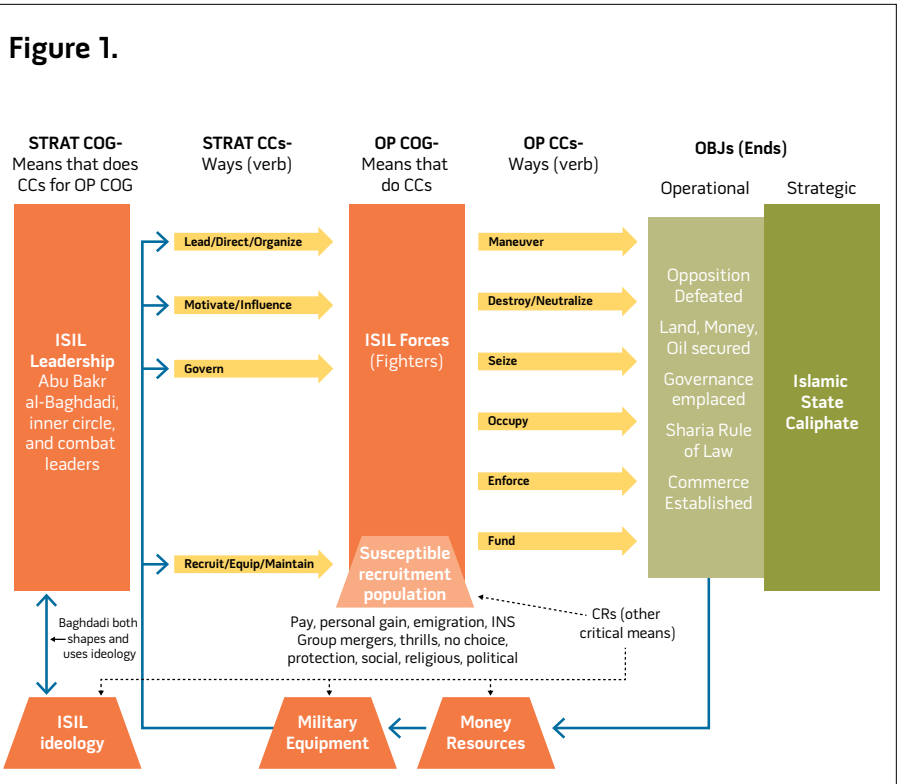
To accomplish this strategic objective, the following operational objectives must be successfully completed: Opposition in Syria and Iraq (military and civilian) must be neutralized or destroyed.¹¹ Land must be seized and secured within Syria and Iraq.¹² Governance must be established in conquered areas.¹³ Sharia law must be established in conquered territory (this is implied as a caliphate requirement). Adequate revenue to establish sufficient commerce for governance and funding must be gained and maintained (with oil as the main resource).¹⁴

Step Two: Ways (CCs) Necessary for ISIL to Accomplish Objectives.

- *Maneuver* to conduct offensive operations
- *destroy/neutralize* opposition
- ability to *seize* territory
- ability to *occupy* seized lands
- *enforce* sharia law
- *govern* provinces, cities, and territory
- *fund* operations and new governance
- *lead, direct, and organize* ISIL
- *motivate and influence* ISIL *recruit* and *maintain* capable forces.¹⁵

Step Three: Means or Critical Requirements Necessary to Execute Ways (Critical Capabilities).

- Adequate fighter strength: ISIL fighters are estimated to number around 20,000–31,500.¹⁶
- Military equipment: ISIL has attained large amounts of assault rifles, machine guns, rocket-propelled grenades, surface-to-air missiles, other antiarmor weapons, artillery, tanks, light vehicles, armored



- personnel carriers, anti-aircraft weaponry, and various other rocket-launcher systems.¹⁷
- Leadership and leadership structure: ISIL has a clear leader with a well-structured cabinet and subordinate leadership. Abu Bakr al-Baghdadi is the declared caliph, and he has a cabinet of advisors that includes two deputy leaders, one for Iraq and one for Syria. There are also 12 local governors with supporting staffs.¹⁸
- Fighter morale/will to fight: Islamic ideology is one morale factor that ISIL leadership uses for recruitment and for exploiting common demographics and psychosociological factors found in many members of terrorist organizations.¹⁹ However, ISIL leadership also lures recruits with pay/housing incentives and protection. Some recruits are thrill-seekers, while some join only for personal gain. Smaller insurgent groups join ISIL as a merger of convenience. Tribes that have surrendered to ISIL are often compelled to join the orga-

nization or face the threat of severe consequences.²⁰

- Funding: ISIL funds itself through the seizure of assets in conquered territory, the sale of oil on the black market, extortion, and external support.²¹

Step Four: Entities That Possess Distinctive Ways to Achieve Operational and Strategic Ends.

These selections are the respective centers of gravity. The critical requirement that possesses the capability to accomplish the identified objectives is the ISIL fighters themselves; therefore, this army is ISIL's operational center of gravity. However, it took significant effort to mobilize the ISIL army. ISIL leadership "does" the work of *recruiting, organizing, governing, and continually motivating* ISIL fighters and "uses" them to *maneuver, defeat, seize, occupy, and enforce* as necessary for ISIL to accomplish its objectives. Therefore, Abu Bakr al-Baghdadi and his inner circle are the strategic center of gravity.



Two U.S. Air Force F-15E Strike Eagle aircraft fly over northern Iraq after conducting airstrikes against ISIL targets in Syria (DOD/Matthew Bruch)

Step Five: Further Validates COG Selection. From the remaining items on the critical requirement list that are vital for the execution of the critical capabilities, the fighters “do” the operational work by “using” the other critical requirements necessary, which were mostly seized by the fighters in the first place. The fighters themselves seized more weapons and equipment for use and did not attain enhanced capabilities as a result of prior government issuing. Furthermore, although ISIL has gained greater capabilities, its fighters—infantrymen—are ISIL’s core strength. Military equipment, money, and other resources cannot be employed, seized, or exploited without ISIL fighters.

ISIL leadership “does” the work to create, maintain, and lead its army, and “uses” this army to accomplish its objectives. If ISIL were already a state actor with an established government, military, and economy, its current leadership would not qualify as the strategic center of gravity, according to Eikmeier.²² However, ISIL is not a state actor. Abu Bakr al-Baghdadi took the helm of the moderately effective Islamic State in

Iraq in 2010 and developed it into the formidable force that it is today.²³ As a kingdom requires a king, a caliphate requires a caliph, and al-Baghdadi established himself as the first caliph. It is one thing to need or employ an existing force; it is another thing to *create* it first. If ISIL becomes more firmly established and continues to be successful, the strategic center of gravity likely will shift toward its revenue sources. Removing a key leader from a securely established entity probably would not cause it to collapse, as a new leader would move in to take his place; however, as of now, ISIL is still a nascent organization that requires astute leadership to hold it together.²⁴

The process concludes by identifying those critical requirements vulnerable to adversary actions. As the ISIL fighters are the operational COG, various factors contribute to the filling of ISIL’s fighter ranks. The mergers of convenience (personal/group survival and protection) indicate that if more ideal options became available, fighters might consider renouncing ISIL. Disruption in revenue could hinder incentives to fight for ISIL, inciting reconsiderations of convictions.²⁵

Events such as these could also potentially increase friction and distrust in leadership. Exploitation of these vulnerabilities could significantly damage ISIL’s centers of gravity.

Eikmeier’s COG determination methodology provides tangible centers of gravity, which are determined through a testable “does/uses” criteria. For the operational COG, identification of this criterion is a more objective process than with identification of the strategic COG, but it is still testable under the criteria. If the methodology is followed correctly, COG identification likely would be more consistent with its results, regardless of who applies the technique.

Godzilla COG Methodology

Another alternative methodology that possesses testable criteria is Butler’s Godzilla COG determination approach. The Godzilla methodology is relatively simple. Butler essentially determines the overall strategic goal of the force to be examined—friendly or enemy—and examines the objective that must be met to achieve that goal. Once the operational objective has been determined,

the critical strengths for achieving that objective are identified. Next, these strengths are removed and examined one at a time. The Godzilla methodology posits that one of these critical strengths is the center of gravity. To identify that center, as a critical strength is removed, the question then asked is: can the objective still be achieved without this strength? If the answer is yes, that strength is not the center of gravity. The strength is replaced and another is removed, asking the same question. Once we find the sole strength—the removal of which precludes the accomplishment of the objective—the center of gravity has been identified (see figure 2).²⁶

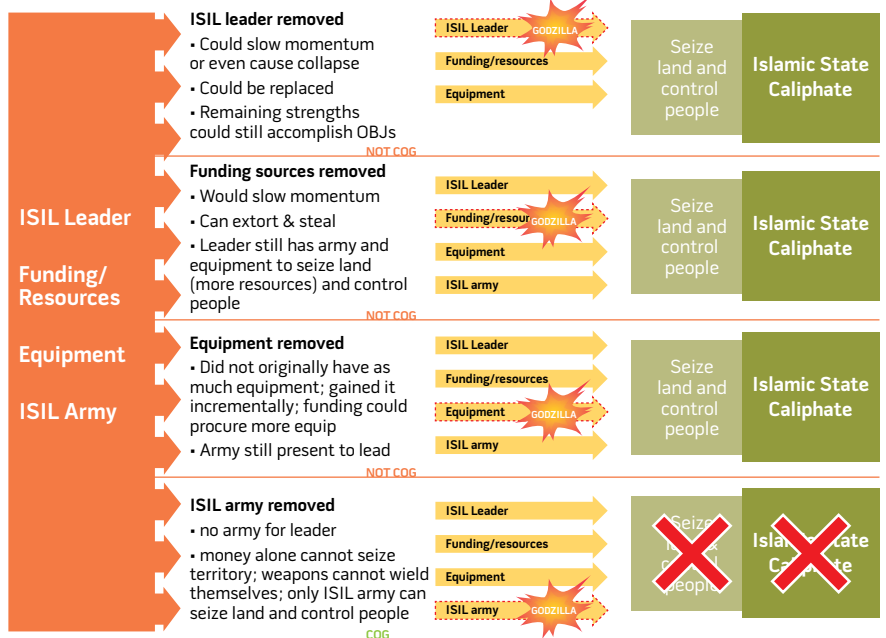
Butler uses Milan Vego’s definitions to best describe critical strengths as the “primary sources of physical or moral potential/power or elements that integrate, protect, and sustain specific sources of combat potential/power.”²⁷ Strengths are therefore considered critical if they “affect or potentially affect achievement of the objective.”²⁸

To get to that point with ISIL, we must examine its stated strategic objective and means for achieving it. ISIL has declared an Islamic caliphate, and its strategic objective is to expand the borders and influence of that caliphate as far as possible, governing all its citizens under strict sharia law. With this as its stated strategic objective, what must ISIL accomplish to make this goal a reality?

First and foremost, what ISIL has so far accomplished is what sets it apart from other Islamic extremist groups. It has seized land, controls a large population, and currently governs as the declared caliphate. Therefore, controlling land and people to spread its sphere of governance is the decisive operational objective that defines the caliphate. Accomplishing these advances has taken several critical strengths unique to ISIL: capable and charismatic leadership, an army of 20,000 to 31,500 armed members, large amounts of equipment, and highly lucrative funding sources. This army has been critical in seizing much of the previously mentioned equipment and revenue. Using the Godzilla methodology, these strengths are

Figure 2.

Center of Gravity Candidates (Identified Critical Strengths)



ISIL leader, funding, and equipment are certainly critical strengths, but these strengths are applied to ensure ISIL has a capable army to accomplish its objectives. The leader needs an army. Critical to amassing a capable army is adequate funding. Only its army can physically seize and control people—other strengths are enablers to this.

Just because the ISIL army is the COG as per the Godzilla method does not mean planning excludes focus on the other critical strengths. Contrarily, if unable to kinetically destroy the army, then focusing on some or all of the identified strengths may be the only way to dismantle the ISIL army.

next removed one at a time to identify the indispensable strength that is the center of gravity.

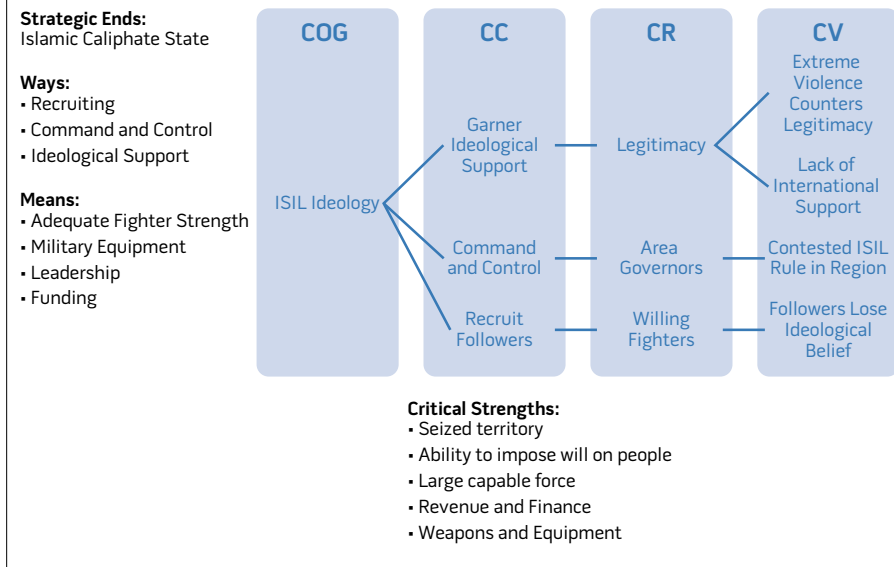
Abu Bakr al-Baghdadi’s leadership and will to expand territory and govern people are key elements that set ISIL apart from its contemporaries. Removing that leadership in the early days of the movement might have completely derailed its progress and dispersed its followers. But the momentum of the organization, as it currently is, has grown beyond just the influence of one man, and removing al-Baghdadi might even promote him to martyr status and galvanize his followers behind his replacement. The replacement might not be as effective a leader, but there is no guarantee that removing this strength would prevent ISIL from attaining its objectives. Therefore, it does not follow at this point that al-Baghdadi is the center of gravity.

The army ISIL has amassed is a motivated group that has obeyed the orders to seize territory and subjugate citizens

throughout its territory in Iraq and Syria. They are well armed, trained, brutal, and, from all outward appearances, motivated and highly capable of conquering, holding, and governing the territories and people they are charged with dominating. ISIL is well armed largely because of the sizeable amounts of military hardware it has captured through progressive victories. Through these victories, ISIL also has seized valuable sources of revenue, notably oil fields, to continue funding its operations.

Large quantities of newly acquired weapons, while critical, cannot exclusively accomplish ISIL’s objectives; someone must wield them. Impeding money and resources could prove critical in suppressing ISIL, but its fighters intrinsically retain the capability to seize territory, subjugate citizens, and hold territory. Removing these militants from the equation would render the leadership of ISIL relatively impotent. Declaring a caliphate will fall on deaf ears if the means for enforcing it and growing

Figure 3.



it are taken away. Therefore, based on the COG identification criteria outlined by the Godzilla method, the substantial army that ISIL has amassed is its center of gravity.

Critical Factors Analysis COG Methodology

Now that non-doctrinal COG methodologies have been applied to the current ISIL problem set, the Critical Factors Analysis COG determination methodology outlined in the JOPP is applied to ISIL. Joint Publication 5-0 states that the first step in COG analysis is to identify the desired objectives.²⁹ Upon examination of ISIL from various open sources, its main strategic objective is to create an Islamic state across Sunni areas of Iraq and in Syria.³⁰ Al-Baghdadi is ISIL's self-declared leader and seeks authority over all Muslims.

Nested with this strategic objective, operational objectives are to control Sunni areas in Iraq, recruit more fighters, and continue to gain funding. As the JOPP COG methodology next outlines, critical strengths, critical weaknesses, centers of gravity, critical capabilities, critical requirements, and critical vulnerabilities must be identified. Finally, decisive points are identified (see figure 3). Below, these variables are outlined with the JOPP process.³¹

- 1a. Strategic Objective(s)
 - a. creation of an Islamic State
 - b. uniting all Muslims
 - c. defeating U.S. and Western allies.
- 1b. Operational Objective(s)
 - a. control of Sunni areas in Iraq and Syria
 - b. recruit more fighters
 - c. gain funding to support efforts.
- 2a. Critical Strengths
 - a. large following of personnel willing to fight for the cause
 - b. weapons seized from captured areas in Iraq and Syria
 - c. financially gain from seized equipment, oil fields, and trafficking operations
 - d. rule by terror to subjugate inhabitants.
- 2b. Critical Weakness(s)
 - a. nonstate actor (seeking to become legitimized state)
 - b. no international endorsement (further delegitimizes ISIL)
 - c. rule by terror (could espouse uprising)
 - d. radical followers' loyalty is tied to religious and ideological beliefs of leader.
- 3a. Strategic Center of Gravity: radical ISIL ideology.
- 3b. Operational Center of Gravity: ISIL forces.
4. Critical Capabilities
 - a. ability to recruit followers
 - b. ability to garner support for ideology
 - c. command and control of forces across wide areas of terrain.³²
5. Critical Requirements
 - a. legitimacy
 - b. sustainment
 - c. fighters.
6. Critical Vulnerabilities
 - a. no cohesive acceptance of Islamic ideology (that is, Sunni versus Shia) in disputed area
 - b. extreme violence could reduce willingness of fighters.
7. Decisive Points
 - a. control of towns and villages within Iraq and Syria
 - b. terrorist activity is a backup to overt rule in Iraq and Syria and will contribute to overall objectives of ISIL.

Based on analysis of the identified critical factors, the conclusion we reach is that the ISIL movement appears reliant on the continuation of popular support for the radical Sunni ISIL ideology, that is, the strategic COG. If belief in the strategic COG followed by al-Baghdadi and his immediate supporters wavers, or if other Islamic ideological variants garner more support, the ISIL movement likely will fall apart.

Comparison Findings

Eikmeier's COG application identified ISIL leadership as the strategic center of gravity, with the ISIL fighters as the operational center of gravity. The Godzilla methodology determined that the ISIL fighters are the COG. The JOPP method identified the ISIL ideology as the strategic COG, with the ISIL fighters as the operational COG. As evident, all three methods yielded similar results for the ISIL fighters as a COG, with differences in the identifica-

tion of the strategic COG. With the Eikmeier application, the ISIL ideology is identified as a critical requirement (means) that its leadership shapes and uses to recruit, motivate, and influence ISIL fighters to accomplish its objectives. Leadership in this JOPP application is not specifically identified as a critical factor but is inherently implied within other outlined critical factors; it is also implied as necessary in the JOPP method conclusion statement.

For argument's sake, whether identified as a COG or a critical requirement, understanding all variables that contribute to the effectiveness of ISIL ideology in recruiting and motivating is essential if planning is focused on countering the ideology. To plan operations centered on the neutralization of an ideology means to focus on the people it is influencing. In addition to the ISIL recruitment base described earlier, much research conducted on ideology-driven terrorist organizations indicates that most terrorists are social solidarity seekers. They search for social acceptance, with a majority of members being poor, unmarried, rejected socially, or dislocated from their native lands.³³ Recent studies on al Qaeda, Fatah, Hamas, Hezbollah, Palestinian Islamic Jihad, and Turkish terrorists have revealed that a key reason for joining was that a friend or relative was already a member, a conclusion consistent with prior research on many other terrorist groups.³⁴ Much terrorism research tends to gravitate toward ideological causation but fails to address consistent socioeconomic and demographic variables that are prevalent within terrorist organizations. ISIL is no exception to this phenomenon.

The COGs identified with the JOPP method are not testable under this process. As different people apply the JOPP process, varying results are inevitable and often become subject to debate. All three methods provide structured processes for identifying critical COG variables. Objectives (ends), critical capabilities (ways), critical requirements (means), and other critical variables are inherent in all three methods. The primary difference is that the Eikmeier and Godzilla applications provide testable criteria for COG



Then-Secretary Hagel and General Dempsey testify before Senate Armed Services Committee regarding President Obama's authorized military strikes in Syria to destroy, degrade, and defeat ISIL (DOD/Daniel Hinton)

determination, whereas the JOPP process lacks a definitive COG qualifying procedure, making it more subjective in nature and thus more susceptible to biases, preferences, or dominant personalities.

With the analyses and findings of these methodologies, current joint doctrine for center of gravity determination should be revised. A new methodology does not necessarily need to directly mirror Eikmeier's or Butler's COG methodologies, but it does need to make joint doctrine COG determination a testable process. Whether it is deliberate elimination symbolized by a mythical creature, a "does/uses" criterion, which singles out a distinctive relationship between two variables, or a hybrid of both, joint doctrine COG determination should be testable. With qualifying standards, COGs are less likely to be misidentified. JFQ

Notes

¹ Joint Publication (JP) 5-0, *Joint Operation Planning* (Washington, DC: The Joint Staff, August 11, 2011), III-23.

² On May 14, 2014, the Department of State officially stated that the Islamic State of Iraq and the Levant (ISIL) will be the terrorist organization's primary name. Department of State, "Terrorist Designations of Groups Operating in Syria," available at <www.state.gov/r/pa/prs/ps/2014/05/226067.htm>.

³ Dale C. Eikmeier, "Redefining the

Center of Gravity," *Joint Force Quarterly* 59 (4th Quarter 2010); James P. Butler, "Godzilla Methodology: Means for Determining Center of Gravity," *Joint Force Quarterly* 72 (1st Quarter 2014); Joint Operation Planning Process (JOPP) Workbook, Naval War College Joint Military Operations Department (Newport, RI: U.S. Naval War College, January 21, 2008), appendix C.

⁴ "ISIS Rebels Declare "Islamic State" in Iraq and Syria," BBC News, June 30, 2014, available at <www.bbc.com/news/world-middle-east-28082962>; "What is ISIS? The Short Answer," *Wall Street Journal*, June 12, 2014, available at <<http://blogs.wsj.com/briefly/2014/06/12/islamic-state-of-iraq-and-al-sham-the-short-answer/>>.

⁵ Jim Sciutto, Jamie Crawford, and Chelsea J. Carter, "ISIS Can "muster" Between 20,000 and 31,500 Fighters, CIA Says," *CNN.com*, September 12, 2014, available at <www.cnn.com/2014/09/11/world/meast/isis-syria-iraq>.

⁶ JP 5-0, III-22.

⁷ Eikmeier references that the use of the word *primary* is attributed to Joe Strange, *Centers of Gravity and Critical Vulnerabilities: Building the Clausewitzian Foundation So That We Can All Speak the Same Language*, Perspectives on Warfighting, no. 4, 2nd ed. (Quantico, VA: Marine Corps Association, 1996), ix.

⁸ Eikmeier, "Redefining the Center of Gravity."

⁹ "Daash Announce the Establishment of the Caliphate State and Renamed the 'Islamic State' Only without Iraq, Syria," *ArabicCNN.com*, June 29, 2014, available at <<http://arabic.cnn.com/middleeast/2014/06/29/urgent-isis-declares-caliphate>>; Office of the Director of National Intelligence, "Abu

Mohammad, letter dated 9 July 2005,” 2, available at <https://web.archive.org/web/20110522153638/http://www.dni.gov/press_releases/letter_in_english.pdf>.

¹⁰ Adam Withnall, “Iraq Crisis: ISIS Changes Name and Declares Its Territories a New Islamic State with ‘Restoration of Caliphate’ in Middle East,” *The Independent* (London), June 29, 2014.

¹¹ Laura Smith-Spark, “Iraqi Yazidi Lawmaker: ‘Hundreds of My People Are Being Slaughtered,’” *CNN.com*, August 6, 2014, available at <http://edition.cnn.com/2014/08/06/world/meast/iraq-crisis-minority-persecution/index.html?hpt=hp_t3>.

¹² Tim Arango and Michael R. Gordon, “Iraqi Insurgents Secure Control of Border Posts,” *New York Times*, June 23, 2014.

¹³ Bill Roggio, “The Rump Islamic Emirate of Iraq,” *The Long War Journal*, October 16, 2006, available at <www.longwarjournal.org/archives/2006/10/the_rump_islamic_emi.php>.

¹⁴ Max Fisher, “How ISIS Is Exploiting the Economics of Syria’s Civil War,” *Vox.com*, June 12, 2014, available at <www.vox.com/2014/6/12/5802824/how-isis-is-exploiting-the-economics-of-syrias-civil-war>; Terrence McCoy, “ISIS Just Stole \$425 Million, Iraqi Governor Says, and Became the ‘World’s Richest Terrorist Group,’” *Washington Post*, June 12, 2014.

¹⁵ J.M. Berger, “How ISIS Games Twitter,” *The Atlantic*, June 16, 2014, available at <www.theatlantic.com/international/archive/2014/06/isis-iraq-twitter-social-media-strategy/372856/>; Harleen K. Gambhir, Dabiq: *The Strategic Messaging of the Islamic State*, Background (Washington, DC: Institute for the Study of War, August 15, 2014), available at <www.understandingwar.org/background/dabiq-strategic-messaging-islamic-state>.

¹⁶ Scitutto, Crawford, and Carter.

¹⁷ ISIL has obtained weapons from Saddam Hussein’s stockpiles, the Syrian civil war, and U.S. involvement in Operation *Iraqi Freedom*. See John Ismay, “Insight into How Insurgents Fought in Iraq,” *New York Times*, October 17, 2013, available at <http://atwar.blogs.nytimes.com/2013/10/17/insight-into-how-insurgents-fought-in-iraq/?_r=1>; Charles Lister, “Not Just Iraq: The Islamic State Is Also on the March in Syria,” *The Huffington Post*, August 7, 2014, available at <www.huffingtonpost.com/charles-lister/not-just-iraq-the-islamic_b_5658048.html?utm_hp_ref=tw>; Thomas Gibbons-Neff, “ISIS Propaganda Videos Show Their Weapons, Skills in Iraq,” *Washington Post*, June 18, 2014, available at <www.washingtonpost.com/news/checkpoint/wp/2014/06/18/isis-propaganda-videos-show-their-weapons-skills-in-iraq/>.

¹⁸ Nick Thompson and Atika Shubert, “The Anatomy of ISIS: How the ‘Islamic State’ Is Run, from Oil to Beheadings,” *CNN.com*, September 18, 2014, available at <<http://edition.cnn.com/2014/09/18/world/meast/isis->

Joint Publications (JPs) Under Revision (to be signed within 6 months)

JP 1-0, *Joint Personnel Support*

JP 1-04, *Amphibious Embarkation and Debarkation*

JP 1-06, *Financial Management Support in Joint Operations*

JP 3-05.1, *Unconventional Warfare*

JP 3-13.3, *Operations Security*

JP 3-15, *Barriers, Obstacles, and Mine Warfare*

JP 3-34, *Joint Engineer Operations*

JP 3-50, *Personnel Recovery*

JP 3-61, *Public Affairs*

JP 3-68, *Noncombatant Evacuation Operations*

JP 4-01.2, *Sealift Support to Joint Operations*

JP 4-01.5, *Joint Terminal Operations*

JP 4-03, *Joint Bulk Petroleum and Water Doctrine*

JP 6-0, *Joint Communications System*

syria-iraq-hierarchy/index.html?hpt=hp_t1>.

¹⁹ ISIL’s foundation is based on al Qaeda’s ideology and follows well-known jihadist principles. This form of Islam is anti-Western and uses violence against those who do not agree with their views. This branch of Islam seeks to return to original thoughts and condemns new ideas, which are believed to be corrupt. See Michael Glint, *Can a War With ISIS Be Won? ISIL/Islamic State/Daesh* (ebook, Conceptual Kings, 2014), 5; *Violent Extremism Smartcard Compendium*, TRADOC Culture Center first draft, September 2012, 45–52.

²⁰ “Islamic State: An Assessment of Capabilities and the Effectiveness of International Intervention,” IHS Jane’s Intelligence Briefing, October 30, 2014.

²¹ Over the past 6 months, since the group began sweeping across eastern Syria and into Iraq, experts estimate that its leaders have gained access to 1.2 billion pounds in cash—more than the most recent recorded annual military expenditure of Ireland. ISIL is developing in a vital oil, gas, and trade area of the world. It can grab as it expands. It might earn up to 5 million pounds a month through extortion of local businesses. In the past year, it has been estimated that ISIL has made 40 million pounds from taking hostages, with each foreign hostage thought to be worth 3 million pounds. See Harriet Alexander and Alastair Beach, “How ISIL is Funded, Trained and Operating in Iraq and Syria,” *The Telegraph* (London), August 23, 2014, available at <[dileast/iraq/11052919/How-Isil-is-funded-trained-and-operating-in-Iraq-and-Syria.html>.](http://www.telegraph.co.uk/news/worldnews/worldnews/mid-</p></div><div data-bbox=)

²² Eikmeier argued that leaders in World War II were not centers of gravity but were critical requirements as leaders for their respective nations and enablers for the actual centers of gravity. In a modernized military, Eikmeier would not identify soldiers as the operational COG. Depending on the military force, the COG could be armor formations, air forces, or some other component—whichever capability is critical for accomplishing the objectives. See Dale C. Eikmeier, “Center of Gravity Analysis,” *Military Review* (July–August 2004), 2–5.

²³ “ISIS Fast Facts,” *CNN.com*, October 9, 2014, available at <www.cnn.com/2014/08/08/world/isis-fast-facts>.

²⁴ “Islamic State.”

²⁵ *Ibid.*

²⁶ Butler, 29.

²⁷ Milan Vego, *Joint Operational Warfare: Theory and Practice* (Newport, RI: U.S. Naval War College, 2009), VII-16.

²⁸ Butler, 27.

²⁹ JOPP Workbook.

³⁰ “ISIS Fast Facts.”

³¹ JOPP Workbook.

³² “ISIL Brings More than Just Brutality to the Battlefield,” *AmericanAljazeera.com*, November 2, 2014.

³³ Max Abrahms, “What Terrorists Really Want: Terrorist Motives and Counterterrorism Strategy,” *International Security* 32, no. 4 (Spring 2008), 97.

³⁴ *Ibid.*, 104.