



Information Systems Technicians monitor communication systems aboard USS *Theodore Roosevelt*, January 2018, Arabian Gulf (U.S. Navy/Alex Corona)

# Paradigm Change

## Operational Art and the Information Joint Function

By Scott K. Thomson and Christopher E. Paul

As Brigadier General Alexis Grynkewich, USAF, states in the preceding article, the Chairman of the Joint Chiefs of Staff approved information as the first addition to the joint functions since the other six were codified in doctrine over 20

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years ago. General Joseph Dunford's approval of this function is a vital step on the pathway to achieve the endstate articulated in the 2016 Department of Defense (DOD) *Strategy for Operations in the Information Environment* (SOIE): "Through operations, actions, and activities in the IE [information environment], DOD has the ability to affect the decisionmaking and behavior of adversaries and designated others to gain advantage across the range of military operations." The strategy correctly

explains that "Effects in the physical and informational dimensions of the IE ultimately register an impact in the human cognitive dimension, making it the central object of operations in the IE."<sup>1</sup>

The need for this addition to the joint functions has become increasingly obvious to military leaders over time. It reveals itself in the difficulty of addressing gray zone challenges, which often displace the strategic utility of physical power; the survival of violent extremist organizations (VEOs) despite sustained physical punishment; and in the rapid proliferation of, and the U.S. military's reliance on, information technology. During a recent effort by the Joint Staff to update Joint Publication (JP) 3-13, *Information Operations*, leaders recognized that the joint force was already attempting to use information as a function and that the time to institutionalize information as a function was therefore overdue.

This change in capstone doctrine is by itself insufficient to solve contemporary

challenges. Without supporting efforts and adequate resourcing, little will change. The real work of institutionalizing and operationalizing information is in stride throughout various DOD components. If implemented boldly and thoughtfully, the new function will cause military commanders, strategists, and planners to revisit and revise their understanding of military operations and operational art. The information function will serve as a vital accelerant for various developmental efforts, such as the *SOIE, Capstone Concept for Joint Operations, Joint Concept for Integrated Campaigning, Joint Concept for Operating in the Information Environment, and Joint Concept for Human Aspects of Military Operations*.<sup>2</sup>

Indeed, the recently released 2017 National Security Strategy (NSS) and 2018 National Defense Strategy both repeatedly highlight threats to U.S. national security stemming from adversarial use of information. Skillful leveraging of information power has enabled competitors and adversaries such as Russia, China, and VEOs to realize important gains in ways that our traditional views of war and warfare struggle to answer. The NSS is particularly direct in admonishing that “U.S. efforts to counter the exploitation of information by rivals have been tepid and fragmented. U.S. efforts have lacked a sustained focus and have been hampered by the lack of properly trained professionals.”<sup>3</sup> These documents mandate that DOD, as part of a whole-of-government effort, take the use of information power seriously. The information joint function is an important accelerant that, if properly implemented, should strengthen the joint force’s ability to achieve strategic aims across the range of military operations.

This article briefly answers a number of questions that this new joint function has prompted across the joint force. First, why must the joint force perform the information function? Second, how must we change our thinking about objectives and endstates? Third, how must we change our thinking about information? We conclude by acknowledging and responding to a number of common

arguments against information as a joint function, discussing the way ahead, and highlighting the benefits of the new function to commanders.

## The Joint Force and the Information Function

There are at least five reasons to elevate information in joint force operations. First, the world has changed. Over the past few decades, the IE has seen significant changes driven by evolving technology. The contemporary IE can be characterized not only by its unprecedented breadth, depth, and complexity, but also by its ubiquity, hyperconnectivity, and exponential growth. Second, our adversaries’ use of information has changed. Adversaries seek and find asymmetrical advantage over the joint force in and through the IE, both allowing near-peer competitors to become much more near-peers and allowing those who we still unambiguously overmatch to gain advantage under certain circumstances.

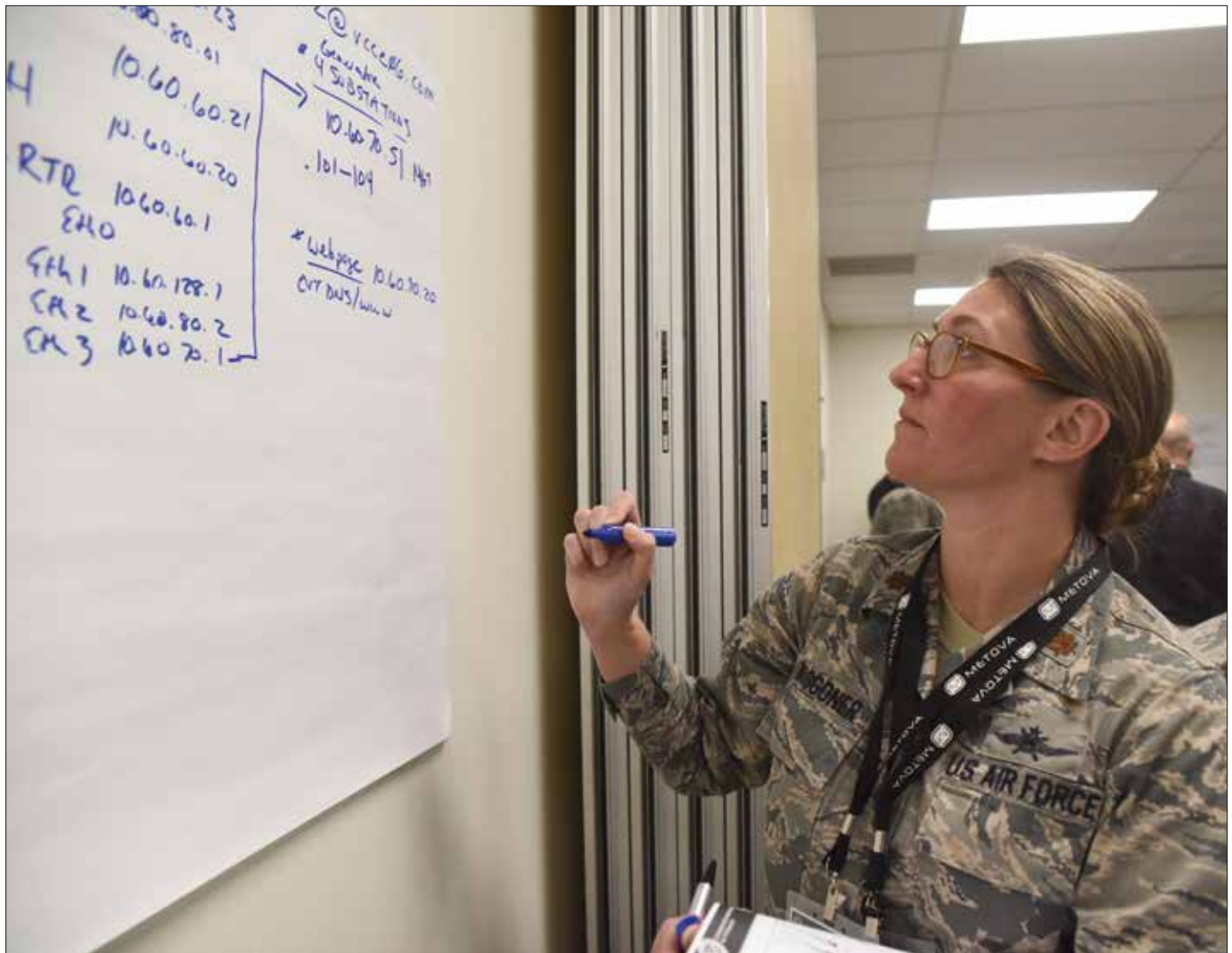
Third, the joint force is vulnerable to attacks in and through the IE—not only in our networks and technical communications, but also in our decisionmaking processes, perceptions, and will. Vulnerability to manipulation or degradation of will includes the will to fight and the political will of the American people, both of which are essential to the ability of the joint force to operate across the range of military operations. Fourth, we cannot *not* communicate, and actions speak louder than words. Every action and utterance of the joint force sends a message, intended or otherwise. This is part of the inherent informational aspects of all military activities. Furthermore, military actions are often much more powerful and influential communications than broadcast messages. If a picture is worth 1,000 words, then a Joint Direct Attack Munition is worth 10,000. Fifth, all outcomes and endstates of joint force operations hinge on the perceptions and decisions that lead to the actions and behaviors of relevant actors. Defeat of an adversary, by whatever mechanism, is a cognitive outcome. Very few battles or

engagements have concluded with the death or wounding of every combatant on one side or the other, but battles typically conclude with one side being defeated. Even the outcomes of operations without an adversary, such as humanitarian assistance and disaster relief, hinge on the perceptions, decisions, and resulting behaviors of the assisted civilian population. Perception, cognition, intention, and decision—these are the terrain of the information function.

## Changing Thinking about Objectives and Endstates

During the 1973 negotiations to end the Vietnam War, Colonel Harry Summers, USA, remarked to a Vietnamese officer that the United States never lost a battle in that war. The Vietnamese officer agreed, but retorted that while Summers’s observation may have been true, it was “also irrelevant.”<sup>4</sup> Indeed, Army Doctrine Publication (ADP) 1, *The Army*, acknowledges that “lethality, by itself, is not enough. If Army forces do not address the requirements of noncombatants in the joint operational area before, during, and after battle, then the tactical victories achieved by our firepower only lead to strategic failure and world condemnation.”<sup>5</sup>

Both Colonel Summers’s conversation and ADP 1 reveal a concern that many share about how the joint force understands planning and operations. Many DOD leaders focus primarily on lethality and battlefield dominance. However, strategic success—not tactical victory—is what leaders must emphasize. The Vietnam War vividly exposed a situation where physical power alone did not produce the desired results, and our recent experiences in Afghanistan and Iraq, where tactical victory has been common but strategic success elusive, echo that point. The relevance of lethality is further diminished in the contemporary operating environment where our adversaries can displace the utility of physical might by operating below the threshold of war (gray zone operations) or operate in loosely networked organizations that easily reorganize and are therefore immune



Airman analyzes coding necessary to maintain operational capabilities for power grid of simulated city as part of Cyber Security Incident Response Training (U.S. Air National Guard/Kayla K. Edwards)

to systemic collapse when their members are killed or captured (VEOs).

To avoid losing wars where we have won all our battles and to gain the full benefit available from the information joint function, we must change how we think about objectives and endstates. The descriptive language of the new joint function calls us to influence relevant actor perceptions, behavior, and action or inaction in pursuit of the commander's objectives and endstate. To do this, commanders must specify objectives and endstates in terms of required behaviors and actions: identify the relevant actors (the troops in enemy formations and their commanders, surely, but likely also enemy national leadership and supporting civilian constituencies) and

identify the actions necessary to enable shorter term objectives (inaction, orienting in the wrong direction, retreat, movement to a vulnerable position, waste of force or resources, civilian protest) as well as those necessary to the endstate (demobilization, withdrawal, cessation of force generation, abdication of leadership, entering settlement negotiations, suspension of legitimacy). Specifying behavioral objectives and endstates further enables mission command and mission tactics, as junior leaders can assess the likely impact of their choices on the actions and behaviors of the relevant actors and exercise initiative in the absence of specific guidance.

Changing the actions and behaviors of others is called "influence," and

influence must therefore become the lingua franca of operational art. By focusing on influence rather than simply "defeat" of an enemy (which is but one possible outcome of influence), we can avoid what Chief of Staff of the Army General Mark Milley has described as "the 'tactization' of strategy."<sup>6</sup> If commanders express objectives and endstates in terms of actions and behaviors of relevant actors, the connections between tactical actions and strategic results become clearer.

We must emphasize that this approach is in no way intended to argue that the joint force does not require lethal overmatch. Such an argument would be counterproductive and foolish. Lethality can be incredibly influential and remains essential to national defense. Our

mandate is to better plan the influential effects of joint force activities to avoid unintended consequences and to better achieve strategic goals.

## Changing Thinking about Information

Realizing that the information joint function has vital technical implications in areas such as cyber and electromagnetic spectrum operations, it is the persuasive psychological aspects of information that remain frustratingly elusive to the joint force. We have identified the key terrain for implementing the information joint function as operational art—the way joint leaders plan, execute, and assess operations. While this realization is evolutionary in its origins, it is possibly *revolutionary* in its effect on military operations. The origin of calculus provides a useful illustration: rather than being the spontaneous discovery of profoundly new ideas, the invention of calculus was the result of incremental improvement over existing mathematical knowledge. Yet this incremental improvement had a profound effect on mathematical practice and application. General John Hyten, USAF, commander of U.S. Strategic Command, believes that the “military that figures out how to control information will be the most powerful military on the planet.”<sup>7</sup> General Hyten’s is but one among a chorus of senior leader voices expressing the joint force’s mandate to elevate the importance of information in plans, operations, and investments. Business as usual carries far too much risk to national security.

Most military leaders who hear “information” will instinctively equate the function with information operations (IO), but the two are not analogous. IO has been a joint capability for many years, but many continue to skeptically view it as a marginal military activity or as a failing enterprise.<sup>8</sup> If IO is marginal or failing, it is first a problem with the way leaders understand the importance and functioning of information, and second, a logical failure in doctrine.

Doctrinally, IO is simply a coordinating staff function that has no organic

capabilities. IO is intended to coordinate and deconflict the use of information-related capabilities (IRCs)—such as military information support operations (MISO), military deception, civil affairs, electronic warfare, and others—with each other and operations in general to achieve the joint force commander’s objectives.<sup>9</sup> Problems arise when we refer to information as an “operation,” separate from other operations. JP 1, *Doctrine for the Armed Forces of the United States*, defines *operations* as a “sequence of tactical actions with a common purpose or unifying theme.” Since the joint force generates information simply by operating, how can operations and IO remain logically separate?

Commanders and staffs frequently miss the inherent relation between physical capabilities and information—and misunderstand the largely intangible nature of information. Even if misunderstood, positive rhetoric from senior leaders illustrates their sincere appreciation for the importance of information. In practice, though, field-grade leaders who do the heavy lifting during planning frequently relegate IO to a segregated staff function. If the J6 can establish network operations, or the J4 can handle sustainment, both with minimal input from the J3, why can the J39 not similarly perform IO in a vacuum? On most staffs, IO remains a secondary effort that supports maneuver, is allocated minimal resourcing, holds minimal space in base orders, and is given little focus during operational updates to joint force commanders.<sup>10</sup>

This segregated application of IO typically focuses on the integration of a narrow subset of IRCs. The implicit thinking equates information with themes and messages, and assumes that the communication of themes and messages is something that happens separate from—and in a supporting role to—operations. However, all military activities have inherent informational aspects because they change the way adversaries, populations, and allies perceive and act on their environment. The use of information is ultimately about generating effects that achieve objectives, and as noted above, *you cannot not communicate*.

The way we (the joint force) view ourselves and think (Service cultures) overlays the use of operational art (planning and operating), and seems to produce a fairly predictable range of planning outcomes that inhibit our ability to competently leverage information. This unfortunately narrow range can prevent clear and creative thinking and critically impede achieving favorable strategic outcomes.

When the joint force uses physical power, it creates far more information (and potentially, influence) than any of the IRCs. The Air Force dropping a “MOAB” (GBU-43/B—the so-called mother of all bombs) in Afghanistan, the Navy maneuvering a carrier strike group off the coast of North Korea unannounced, or the Army or Marines conducting exercises in Europe near the Russian border all create large volumes of information—information that affects the perceptions, cognitions, intentions, and decisions of a range of relevant actors. The information function, once woven into operational art (and supported by important low-density expertise), stands to enable commanders to better anticipate the strategic effects of their actions.

Information is as vital tactically as it is strategically. Iraq and Afghanistan provide numerous examples of tactical operations working at odds with desired strategic outcomes because they did not contribute to the desired perceptions and behaviors of relevant actors. General Stanley A. McChrystal, USA (Ret.), observed that an “inability to understand our surroundings often left a burned-out building or a cratered road—a stark symbol of our shortcomings—and wasted precious time in the overall campaign. Waging such campaigns, *designed to persuade people to behave in a certain way* is complex.”<sup>11</sup>

It is imperative that we reorient our approach to operational art toward influencing relevant actor perceptions, behavior, action, or inaction in order to address this complexity. If we express objectives and endstates in terms of actions and behaviors desired of others, we will avoid many missteps and produce more predictable enduring strategic outcomes.

Information, along with the other joint functions, will support the pursuit of those outcomes.<sup>12</sup>

It remains unclear what the eventual fate of IO as a doctrinal construct will be. IO could remain in doctrine, or its purpose could simply be absorbed into the staff through other means. As DOD views on information power evolve, and as the Joint Staff works through the implementation of the information joint function, what is clear is that the elevated importance of information requires a new paradigm that far surpasses the traditionally limiting IO construct.<sup>13</sup>

The eventual fate of IO as a doctrinal or staff construct aside, a willingness to express commanders' objectives in terms of others' actions and behaviors and to bake informational considerations into base plans will not alleviate the need for information-related expertise. If anything, the new emphasis on the role of information increases the need for such expertise. As commanders and staffs seek to use all available military capabilities to influence the actions and behaviors of relevant actors, they will need to understand the predictable and common patterns in human behavior and the means by which information is collected, disseminated, and processed.

While all leaders will need to possess basic knowledge of the IE, information function, and IRCs, they will often also need the support of highly educated subject matter experts in order to realize the full potential of information. The fact remains that human behaviors are notoriously challenging to diagnose, understand, and change. Both the intelligence and IRC communities must possess the education and skills to assist the commander in the technical and psychological aspects of information as it relates to plans, operations, and assessment.

### Challenging the Strawman

When presenting an argument elevating the importance of information and behavior, routine objections surface:

- "This is not our job."
- "This cannot be done."

- "We already do this."
- "This will cost the Services combat capability."

*"This Is Not Our Job."* This assertion usually emerges when one mentions the word *influence*. But even conventional combat operations have a purpose larger than destruction. There, the purpose is to defeat the will of the enemy in traditional Clausewitzian terms. But "will" is incomplete by itself. It is *the will for somebody to do something*, and that means that any realization of will is actually some form of behavior. The will to resist or the will to fight are embodied in actions and behaviors. We only know we have broken an enemy's will when it stops fighting or resisting, and it begins to engage in defeated behaviors, such as fleeing or surrender. If the behaviors of relevant actors define strategic success or failure, and objectives and endstates are specified in these terms (as they should be), then influence is the ultimate purpose of the joint force.

*"This Cannot Be Done."* Some critics deny the possibility of effectively specifying objectives and endstates in behavioral terms. Surely this is not how commanders and staffs habitually plan, but it is far from impossible. Planning toward behavioral outcomes is not only possible, but it is also routine for certain elements of the joint force. MISO already has an analytical process called target audience analysis, focused on understanding the behaviors of relevant actors, and which is used to plan and shape MISO efforts to influence (routinely including physical actions as well as communication).<sup>14</sup> Military deception, being behaviorally focused, is similar in nature. A rich body of literature reveals the effectiveness of applied behavioral planning approaches to policy implementation by governments around the world. Typically referred to as behavioral economics, these approaches rely on social and cognitive psychological research to dramatically improve policy outcomes defined by human behavior.<sup>15</sup> That the joint force has yet to adopt these methods makes them no less valid.

*"We Already Do This."* This statement usually refers to either operations

focused on a commander's endstate or the relatively minor inclusion of information considerations in plans and operations. While planners inherently direct operations toward a commander's desired endstate, the explicit behavioral component is typically absent. In those cases, planning toward behavioral outcomes that support strategy is implied rather than specified. Furthermore, the best routes to persuasion and influence are assumed rather than planned using valid behavioral analysis and informed by a knowledge of behavioral science. It is true that units "execute IO," but, as stated earlier, IO is often a separate and supporting staff activity. To be effective, information must not only be understood as central to how objectives are stated, but also fully integrated with other capabilities (and functions) in pursuit of those objectives.

*"This Will Cost the Services Combat Capability."* There may be limited merit to this concern. For example, the Army does not have the MISO forces it needs to support long-term stability operations—something that became obvious during the heights of operations in Iraq and Afghanistan. Similarly, the Intelligence Community is simply not yet ready to support the information function, and this function will affect intelligence investments in all the Services and some defense agencies. However, two facts stand out. The first is that excellent tactics and physical capability are irrelevant if they do not achieve strategic aims. Physical destruction rarely defines strategic success. More often, strategic success is defined by collective social behaviors. Second, implementing the information function is not an argument for massive investment in influence capabilities. While new investments are necessary, the first and most effective approach is to better use the force at hand by improving the way the joint force employs its current assets. Information-related capabilities are less expensive than physical combat power capabilities. The Marine Corps is already reorganizing its information-related force structure into Marine Information Groups, showing a willingness to invest in new structure.



Airmen work with 179<sup>th</sup> Airlift Wing Communications Flight, presented with Air Force Lieutenant General Harold W. Grant award for best communication flight in Air National Guard, January 26, 2018, Mansfield, Ohio (U.S. Air National Guard/Joe Harwood)

It has even assigned a three-star deputy commandant for information. Service capability and capacity count, but ultimately, adopting the information joint function is about clearer thinking.

### The Way Ahead

Those involved in the efforts to implement the information joint function realize that they are trying to solve a strategically important, but inherently ambiguous, complex problem. The Joint Staff has already issued the change to JP 1 and is in the process of analyzing and implementing changes to down-trace doctrine such as JP 3-0, *Operations*, and JP 3-13, *Information Operations*. The decisive point for realizing the potential of information as a joint function will rest in improving two other pieces of doctrine, though. Sharpening JP 5-0, *Joint Planning*, specifically operational design and the joint

planning process, will largely define our ability to harness the power of information to enable strategic success. Simultaneously, we must improve the Joint Intelligence Preparation of the Operational Environment (JIPOE) process as contained in JP 2-01.3. Since JIPOE feeds course of mission analysis and course of action development, it must enable the staff to produce solid analysis of the drivers of human behavior so the commander understands how best to execute the information joint function. Vague statements in doctrine accomplish little. The Intelligence Community needs specific processes to assess the existing and likely behaviors of relevant actors. Perhaps making the MISO target audience analysis process an intelligence responsibility and integrating it as part of JIPOE would be a logical place to start. This could enable staffs to produce logics of behavior change that

inherently link tactical actions to strategic outcomes defined by relevant actor behavior.

Targeting and assessments are the final big pieces of the puzzle. Targeting must account for both a short- and long-term focus. Some concerns, such as countering propaganda or moderating crises to dampen negative effects, are immediate in nature. However, targeting must focus just as intently on long-term strategic objectives and account for the fact that enduring changes to human behavior are far more likely to take years than days. Therefore, we must consider modifying JP 3-60, *Targeting*, to support the information function. Evaluating campaign success remains an elusive problem to solve. A behavioral focus in plans and operations, enabled by the information function, may produce tangible progress toward this end.<sup>16</sup>

The way ahead for implementing the joint function is not purely doctrinal. The Office of the Secretary of Defense is revising policy to enable the joint force to better operate in and through the IE. Professional military education must thoroughly educate leaders at all levels—from initial entry through strategic-level education—on both technical and psychological aspects of information for both offensive and defensive operations. The Intelligence Community must devote resources to the analysis of social and individual behaviors as well as the technical aspects of the IE. The Services will need to make new investments to develop both human-focused and technically focused IRCs.

In April 2017, U.S. Army Special Operations Command (USASOC) hosted a senior leader forum composed of a large group of general officers and civilian equivalents to discuss expanding the way the Army views operations. The USASOC proposition is that schemes of maneuver should include cognitive objectives resulting in relevant actor behavior favorable to U.S. interests. Their commander, Lieutenant General Ken Tovo, challenged the group to begin to think differently. He lamented that while we do win the fights that we engage in, we still fail to achieve our campaign objectives. Furthermore, he stated, our planning systems too frequently tilt us toward battle when battle may not be the appropriate solution to our strategic problems. “The problem,” he continued, “is *like* IO, but it’s bigger.”<sup>17</sup> The solution he and other senior leaders seek is *informational*. Contemporary DOD organizational culture and planning systems are virtually blind to the proper importance, role, and function of information. Commanders, our educational institutions, and our training bases must move out absent enumerated guidance and pursue General Dunford’s intent when he signed the change to JP 1.

The potential benefit of information as a joint function to commanders is clear. Their staffs will be able to better support them by developing plans that do in fact link tactics and strategy.

Commanders will be able to measure campaign success by evaluating emergent behavior of relevant actors that defines strategic outcomes rather than focusing too intently on the physics of fighting. In 2009, then-General James Mattis stated that “capturing perceptions is the new ‘high ground’ in today’s conflicts, as the moral is to the materiel as three is to one.”<sup>18</sup> It is time to capture that ground.<sup>19</sup> JFQ

## Notes

<sup>1</sup> *Strategy for Operations in the Information Environment* (Washington, DC: Department of Defense, 2016), 2–3.

<sup>2</sup> *Ibid.*; *Capstone Concept for Joint Operations: Joint Force 2020* (Washington, DC: The Joint Staff, September 10, 2012), available at <[www.defenseinnovationmarketplace.mil/resources/JV2020\\_Capstone.pdf](http://www.defenseinnovationmarketplace.mil/resources/JV2020_Capstone.pdf)>; *Joint Concept for Integrated Training* (Washington, DC: The Joint Staff, February 1, 2017), available at <[www.arcic.army.mil/app\\_Documents/SLTF/Joint\\_Concept\\_for\\_Integrated\\_Campaigning\\_v0\\_25\\_14\\_Jan\\_2016.pdf](http://www.arcic.army.mil/app_Documents/SLTF/Joint_Concept_for_Integrated_Campaigning_v0_25_14_Jan_2016.pdf)>; *Joint Concept for Operating in the Information Environment* (Washington, DC: The Joint Staff, September 1, 2017, draft version 0.80); *Joint Concept for Human Aspects of Military Operations* (Washington, DC: The Joint Staff, October 19, 2016), available at <<http://nsiteam.com/social/wp-content/uploads/2017/01/20161019-Joint-Concept-for-Human-Aspects-of-Military-Operations-Signed-by-VJCS.pdf>>.

<sup>3</sup> *National Security Strategy of the United States of America* (Washington, DC: The White House, 2017), 35.

<sup>4</sup> David Wood, “The Afghanistan War: Tactical Victories, Strategic Stalemate,” *The American Audacity*, February 14, 2011, available at <<https://theamericanaudacity.blogspot.com/2011/02/afghanistan-war-tactical-victories.html#/2011/02/afghanistan-war-tactical-victories.html>>.

<sup>5</sup> Army Doctrine Publication 1, *The Army* (Washington, DC: Headquarters Department of the Army, September 2012), 1–7.

<sup>6</sup> Personal notes from small group discussion with General Mark A. Milley, USA, at Tufts University, Boston, November 10, 2017. In this discussion, General Milley lamented the need to develop higher level strategic thinkers on par with people like Henry Kissinger.

<sup>7</sup> Bill Gertz, “Stratcom Worried by Slow Pace of U.S. Nuclear Modernization,” *Washington Free Beacon*, July 31, 2017, available at <<http://freebeacon.com/national-security/stratcom-worried-slow-pace-u-s-nuclear-modernization/>>.

<sup>8</sup> Jerome Lynes, deputy director for Joint Education and Doctrine, Joint Staff J7, notes that “IO [information operations are], anecdotally, one of the most misused terms in the DOD Dictionary being used variously to mean the integration of the IRCs [information-related capabilities], public affairs, strategic communication themes, and talking points.” Email message to authors, August 24, 2017.

<sup>9</sup> Maneuver and fires, for example, as well as public affairs—an IRC that does not fall under IO.

<sup>10</sup> Isaac R. Porche III et al., *Redefining Information Warfare Boundaries for an Army in a Wireless World*, MG-1113-A (Santa Monica, CA: RAND, 2013), available at <[www.rand.org/pubs/monographs/MG1113.html](http://www.rand.org/pubs/monographs/MG1113.html)>.

<sup>11</sup> Stanley A. McChrystal, “Foreword,” in Andrew McKay and Steve Tatham, *Behavioural Conflict: Why Understanding People and Their Motivations Will Prove Decisive in Future Conflict* (Essex, United Kingdom: Military Studies Press, 2011), v. Emphasis added.

<sup>12</sup> The other joint functions are command and control, intelligence, fires, movement and maneuver, and protection. See Joint Publication 1, *Doctrine for the Armed Forces of the United States* (Washington, DC: The Joint Staff, March 25, 2013, Incorporating Change 1, July 12, 2017), I-18–I-19.

<sup>13</sup> Mr. Lynes refers to this as a “seismic shift.” Email messages to authors, August 24, 2017.

<sup>14</sup> Special Text 33-01, *Military Information Support Operations Process* (Fort Bragg, NC: United States Army John F. Kennedy Special Warfare Center and School, 2014), 2-1–2-34.

<sup>15</sup> For example, see Alain Samson, ed., *The Behavioral Economics Guide 2017*, available at <[www.behavioraleconomics.com/the-behavioral-economics-guide-2017/](http://www.behavioraleconomics.com/the-behavioral-economics-guide-2017/)>.

<sup>16</sup> Christopher E. Paul et al., *Assessing and Evaluating Department of Defense Efforts to Inform, Influence, and Persuade: Handbook for Practitioners*, RR-809/2-OSD (Santa Monica, CA: RAND, 2014), available at <[www.rand.org/pubs/research\\_reports/RR809z2.html](http://www.rand.org/pubs/research_reports/RR809z2.html)>. While written toward information-related efforts, the methods in this study could easily apply to evaluating campaigns writ large.

<sup>17</sup> Conference discussion, Expanding Maneuver Senior Leader Forum, Tyson’s Corner, VA, April 5, 2017.

<sup>18</sup> James Mattis, “Launching NATO’s New Strategic Concept,” Brussels, July 7, 2009, available at <[www.nato.int/cps/en/natolive/opinions\\_56392.htm](http://www.nato.int/cps/en/natolive/opinions_56392.htm)>.

<sup>19</sup> On September 15, 2017, Secretary Mattis issued a memorandum to the Department of Defense endorsing the new joint function, and admonishing leaders across the Department to support efforts related to the function.