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Why Operations Assessments Fail—It's Not Just the Metrics

Jonathan Schroden

WHY OPERATIONS ASSESSMENTS FAIL

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In any military campaign, commanders, politicians, and the general public all desire to know whether the effort is succeeding. For conventional conflicts, well developed theories of war give a good understanding of the objectives to pursue and how to pursue them. These theories also enable the derivation of well defined metrics for progress, such as terrain held, numbers of enemy fighters killed or captured, or amount of enemy equipment and materiel destroyed. In unconventional conflicts the theories of war are more complex, objectives and ways to achieve them are less straightforward, and notions of "winning" and "losing" are more difficult to define. As a result, it is also more difficult to gauge and demonstrate progress in such conflicts. For the specific case of counterinsurgency, however, gauging and demonstrating progress is at least as important as in a conventional war, since the former tends to last longer and therefore requires sustained political and public support to conduct—and such support is often tied to proof of progress. Thus operations assessment, designed to show whether progress is being made, should be a vital part of any unconventional conflict, especially counterinsurgency.

For the current conflict in Afghanistan, assessments of progress have been highly criticized. Early in the war, efforts to measure and demonstrate progress were relatively immature, as evidenced by the "initial assessment" prepared by General Stanley McChrystal soon after he took command of the International Security Assistance Force (ISAF) in 2009:

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> ISAF must develop effective assessment architectures . . . to measure the effects of the strategy, assess progress toward key objectives, and make necessary adjustments.

ISAF must identify and refine appropriate indicators to assess progress, clarifying the difference between operational measures of effectiveness critical to practitioners on the ground and strategic measures more appropriate to national capitals.[1]

The fact that General McChrystal did not find such processes and products in place when he took command in 2009 implies that we were poorly assessing progress eight years into the war. In part because there was no single effective campaign assessment at that time, many groups then took it upon themselves to create one. At a recent NATO conference an attendee-generated list showed over twenty different campaign-level operations assessments being prepared by various organizations for Afghanistan.[2] Clearly, the importance of assessing progress in the campaign has been realized, and considerable effort has been exerted to improve our assessment capabilities. However, criticisms of our ability to measure and demonstrate progress in a clear, credible, and transparent manner have only increased. The reasons for these criticisms vary considerably, from confusion in planning to shortfalls in availability of data or in doctrine, to flaws of current processes and products.[3] By far the most popular criticism, however, is that we do not have the right *metrics* for Afghanistan. Many papers have been published on this subject, and in 2010 I was invited to no fewer than three conferences, each convened to generate a better list of metrics for Afghanistan.[4] Even the former head of the ISAF Afghan Assessments Group (AAG) is on record as saying, "Our metrics suck."[5]

Given these efforts, it seems clear that what should be a vital part of the campaign in Afghanistan is not going well. But if the problem were simply one of finding the right metrics, it seems likely the solution would have been found by now, especially since similar criticisms were levied during the war in Iraq.[6] Based on my five years of personal experience with operations assessments in Iraq, in Afghanistan, and at several commands (e.g., U.S. Central Command), I submit that the problem goes beyond the wrong metrics and that more fundamental problems with operations assessment exist—for Afghanistan, for Iraq, and in general. As I will show, operations assessments suffer from a number of serious issues that feed upon and reinforce each other. The resulting "failure cycle" is the reason why the theoretical utility of operations assessment is rarely realized in practice, and for the specific case of Afghanistan it is a large contributor to our inability to measure or demonstrate progress.

DEFINITION, PURPOSE, AND THEORETICAL UTILITY OF OPERATIONS ASSESSMENT

Before launching into a critique, it is worth reviewing the doctrinal definition, the purpose, and the theoretical utility of operations assessment. In terms of definition, Joint Publications (JPs) 3-0 *(Joint Operations)* and 5-0 *(Joint Operation*

Planning) define operations assessment as "a process that measures progress of the joint force toward mission accomplishment";[7] the U.S. Army's Field Manual (FM) 5-0, *Operations Process,* says it is "the continuous monitoring and evaluation of the current situation, particularly the enemy, and progress of an operation."[8] The Army's counterinsurgency manual (FM 3-24) defines operations assessment as "the continuous monitoring and evaluation of the current situation and progress of an operation."[9]

These definitions highlight the main purpose in conducting operations assessment, which is to measure the progress of an operation toward accomplishing its mission. But these documents elaborate in a variety of ways:

- [JPs 3-0 and 5-0] Commanders adjust operations based on their assessments to ensure that military objectives are met and the military end state is achieved. The assessment process is continuous and directly tied to the commander's decisions. Assessment actions and measures help commanders adjust operations and resources as required, determine when to execute "branches and sequels" [optional or successive operations envisioned in a plan of action], and make other critical decisions to ensure current and future operations remain aligned with the mission and military end state.[10]

- [FM 5-0] Assessment involves deliberately comparing forecasted outcomes with actual events to determine the overall effectiveness of force employment. Assessment helps the commander determine progress toward attaining the desired end state, achieving objectives, and performing tasks. It also involves continuously monitoring and evaluating the operational environment to determine what changes might affect the conduct of operations.[11]

- [FM 3-24] Effective assessment is necessary for commanders to recognize changing conditions and determine their meaning. It is crucial to successful campaign adaptation and innovation by commanders. Assessment is a learning activity and a critical aspect of [campaign] design. This learning leads to redesign. Therefore, [campaign] design can be viewed as a perpetual design–learn [assess]–redesign activity.[12]

From these and other documents on the subject one can compile a set of points describing possible theoretical purposes for, and utilities of, operations assessment. These include informing commanders' decision making (e.g., on resource allocation); completing the planning or design cycle (i.e., "observe-plan-execute-assess," or "design-learn-redesign"); recognizing changing conditions in the environment; stimulating and informing adaptation and innovation; reducing uncertainty and bounding risk; showing causal linkages between actions and the achievement of objectives; documenting the commander's decision-making process; and evaluating performance of subordinate units. While these items are not all-inclusive, the list certainly comprises actions that

most commanders would find useful. The question is: How well do operations assessments perform these functions in practice? In my experience with assessments for Iraq and Afghanistan, and in the experience of several objective observers for Afghanistan, the answer is *not very well.*[13]

REASONS OPERATIONS ASSESSMENTS FAIL

There are many reasons why operations assessments fail, by which I mean that in practice they do not realize the theoretical utilities listed above. I will focus on a few key reasons, chosen because they are particularly important and because they result in a cascading chain of issues that reduce the effectiveness of operations assessments and ensure the propagation of these issues into the future.

Doctrinal Deficiencies

One reason operations assessments fall short is that there are deficiencies, contradictions, and confusion in the doctrine that is supposed to guide their conduct. For joint military operations, the first stop for doctrine is the joint publications, especially JPs 3-0 and 5-0. Unfortunately, when it comes to operations assessment, these publications are notably vague. While they do offer guidance on the purpose of conducting assessments, they mainly focus on making clear the distinctions between "measures of effectiveness" (MoEs) and "measures of performance" (MoPs). Nowhere do they discuss in detail *how* to do operations assessment. Thus, to a practitioner they provide little more than a beginner's lesson in vocabulary.

The doctrine issued by individual services is another source of guidance. Field Manual 5-0 provides more detail on how to do assessment, and much of its guidance is useful and sound from a practitioner's viewpoint. However, its guidance also contains many contradictions that detract from its overall utility. Examples include:

- FM 5-0 says detailed analysis is to be avoided, that "committing valuable time and energy to developing excessive and time-consuming assessment schemes squanders resources better devoted to other operations process activities."[14] However, it says later that "establishing cause and effect is sometimes difficult, but crucial to effective assessment. Commanders and staffs are well advised to devote the time, effort, and energy needed to properly uncover connections between causes and effects."[15] While the latter may seem straightforward, in practice it is typically very time-consuming.

- It stresses the need to incorporate quantitative and qualitative indicators in the assessment, observing that "the appropriate balance depends on the situation—particularly the nature of the operation and available resources for assessment—but rarely lies at the ends of the scale."[16] However, in the

FIGURE 1
SAMPLE ASSESSMENT FRAMEWORK
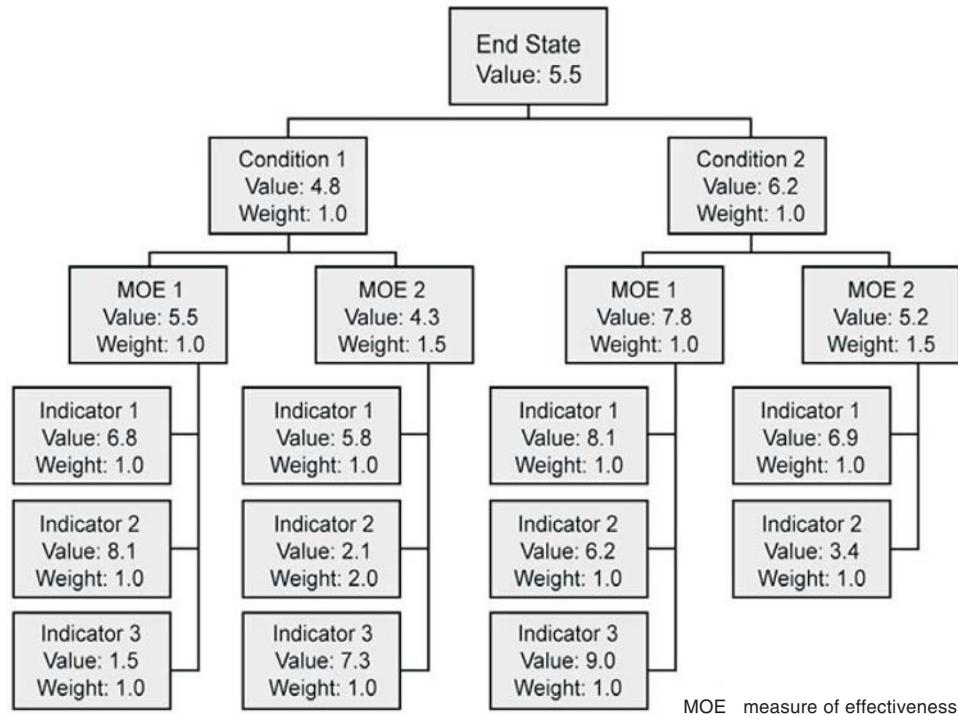
FM 5-0, app. H.

manual's appendix H, which explains how to develop a formal assessment plan, the sole assessment framework presented is strictly quantitative (figure 1).

• It describes the framework in figure 1 as "a hierarchy used in formal assessments that numerically describes progress toward achieving desired conditions." It recommends such an assessment be combined with "expert opinions of members of the staff, subordinate commanders, and other partners. In this way, the commander receives both a mathematically rigorous analysis as well as expert opinions."[17] While this may seem true on its face, the sample framework is actually not mathematically (or even logically) rigorous. It involves weight-averaging numbers with different units, thereby comparing "apples and oranges." Also, the weights used in the framework are entirely subjective (and likely arbitrary), thereby undermining its "mathematical rigor." Finally, the framework implies a model of warfare in which all actions are independent and so can (along with their effects) be counted, added, and averaged together. This is highly unlikely to be true in a military campaign.

These contradictions regarding the importance of analysis and intellectual rigor and the balance between quantitative and qualitative information are just a few of the confusing aspects of Field Manual 5-0 that reduce its usefulness to practitioners of operations assessment.

For counterinsurgency, FM 3-24 has only three pages on how to conduct assessments. While one of them gives a useful set of example indicators, nowhere does the manual discuss how to structure an assessment framework or product, how to collect and analyze data, etc.—which is odd, given that it stresses the critical role that assessments play in design, adaptation, and redesign. Overall, it provides little in the way of value to practitioners of operations assessment.

Some might reply that doctrine exists to provide broad guidance and that we should not expect it to provide detailed instructions on how to conduct operations assessment. Instead, some suggest, practitioners should look to "best practices" guides, such as one produced by the Center for Army Lessons Learned.[18] However, even that handbook has its deficiencies: it simply rehashes much of FM 5-0, its descriptions of the roles of military echelons are unrealistic, it contains few helpful examples of assessment products, and it argues throughout that the U.S. Agency for International Development's Tactical Conflict Assessment and Planning Framework model should be the foundation of stability operations assessment without justifying why or explaining how a tactical model could be used to assess progress at the operational level. Thus even our assessment handbooks provide little value to practitioners.[19]

In addition, there is confusion in our doctrine as to whether the principles of "effects-based operations" (EBO) still apply. General James N. Mattis, then Commander, U.S. Joint Forces Command, instructed his organization in 2008 that the terms and concepts associated with EBO were to be stricken from joint doctrine, training, and education.[20] Yet it remains unclear whether EBO should continue to be used, and one study of Afghanistan concluded that "EBO and EBA [effects-based assessment] are alive and well."[21] This is true in my experience also, and it is perhaps not surprising, since Joint Publications 3-0 and 5-0 have not been fully updated since General Mattis's memorandum. While the Army's FM 5-0 was published afterward, it still contains references to effects, and its sample assessment framework simply replaces "desired effects" with "desired conditions" (figure 1).[22] Thus even our planning doctrine is confusing and deficient. In any case, even if planners do not use EBO, practitioners of operations assessment often still use an effects-based approach, because it is all they can find in doctrine (figure 1). In these cases, it is prudent to ask whether one should expect an effects-based assessment to succeed, since these efforts amount to "cherry-picking" aspects of coherent doctrinal processes. Indeed, I have yet to see this approach succeed in practice.

Lack of Training for Practitioners

Another reason operations assessments fail is that those who produce them are not adequately trained. In my experience, two types of people get tasked to conduct operations assessment: staff officers who, regardless of their skill sets, have been placed in assessments billets (many of them former pilots, for some reason); and "ORSAs" (individuals formally trained in operations research and systems analysis). Neither of these groups receives any specific training on how to conduct operations assessment—they are typically left to decipher doctrine on their own or to hunt for assessment products created by others that they can copy.[23]

Given the deficiencies and confusion that exist in doctrine, it is not surprising that many practitioners fail in their attempts to devise useful assessment processes from scratch. Those who find fully formed assessment products from another command will usually fail, because the products they copy are typically derivations of the framework in figure 1, which suffers from the drawbacks identified earlier. Anyone who has attended conferences on operations assessment can attest that the approaches presented tend to use that structure, with the same weighted-average "roll-ups" of metrics into the same "stoplight chart" (i.e., red/yellow/green coding) products. In the absence of sound doctrine and training, we have left practitioners either to flounder on their own or to steal flawed products from others, both of which are recipes for failure.

Expectations of Audiences

Operations assessments also fail because in practice they rarely live up to the expectations of commanders. More specifically, though commanders establish assessment cells because they desire to reap the theoretical benefits of operations assessment identified earlier, practitioners of assessment are set up for failure by doctrinal and training shortcomings; the results tend to be processes and products that do not deliver the theoretical utilities that commanders expect. When commanders realize this, they stop paying attention to assessments, which leads to the slow death of the latter. A related issue is that commanders who do not see the theoretical promise of operations assessment translated into practical utility do not go on to be advocates for the process. This indifference to assessment allows poor doctrine and practices to persist, since if commanders lose interest in assessment while in command, they certainly will not care about assessment thereafter.

BREAKING THE FAILURE CYCLE

If we now look more broadly at the reasons operations assessments fail, it is clear they are not isolated and independent; rather, they are linked together in what I

FIGURE 2
FAILURE CYCLE FOR OPERATIONS ASSESMENT
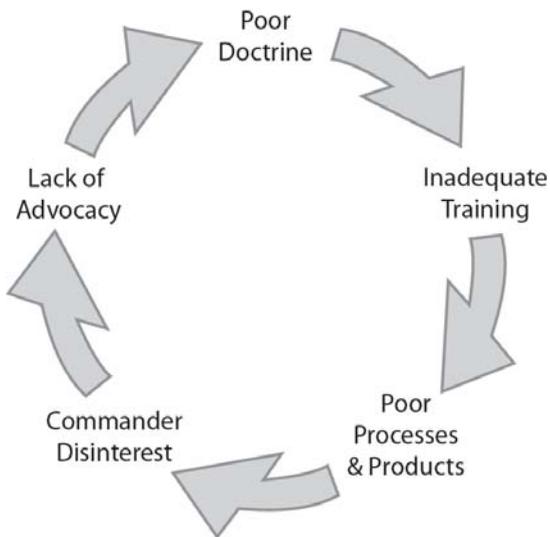
call a "failure cycle." This cycle, which is depicted in figure 2, runs as follows: poor and confusing doctrine leads (in part) to inadequate (or no) training of assessment practitioners, which leads to poor assessment processes and products, which leads to commanders who are uninterested in assessment, which leads to a lack of advocacy for fixing assessment, which leads to a perpetuation of poor doctrine—and the cycle continues.

How can the failure cycle for operations assessment best be broken? In principle, one could start at any point in the cycle, but in practice certain spots would be easier or more logical than others.

Gaining an Advocate. While on their face other aspects of the failure cycle may seem more important, the lack of advocacy within the Department of Defense (and other departments) for operations assessment is in fact the most crucial problem, for several reasons. First, without an advocate to highlight to the department that its current doctrine and processes are inadequate, there will be no impetus for change. It is too easy to republish or slightly tweak current doctrine rather than to rethink completely the way in which operations assessments are designed and implemented—and in the quasi-post-EBO environment in which plans are currently being written and assessed, a complete rethinking is required. Second, without an advocate there is no center of gravity around which to accumulate knowledge and thus there will never be an established cadre of experts in operations assessment. Instead, we will continue to cannibalize other military occupational specialties, most notably the ORSA pool, to conduct assessments. Thus, the first step in breaking the failure cycle is to gain a high-level advocate for operations assessment within the Defense Department.

Improving Doctrine. Once an advocate is gained and the argument can be made at the right levels that our doctrine needs to be dramatically improved, the first issue to be addressed will be whether "effects-based operations" is still an operative planning process for the U.S. military. This is a larger issue than assessment, but the way in which planning is conducted directly impacts the way in which assessments are conducted. If the U.S. military decides to keep EBO, perhaps simply adding more detail to Joint Publications 3-0 and 5-0 (and Field Manual 3-24) and fixing the contradictions in FM 5-0 will suffice. What seems more

likely is that some new planning construct would come to the fore in such a discussion and that as a result we would need to revisit fundamentally the purpose and design of operations assessment. Regardless, those who are responsible for improving this doctrine need to understand that assessing the progress of military operations (especially counterinsurgencies) is difficult and that therefore doctrine needs to provide much more detail on *how* to do it.

Improving Training. Improving doctrine, though necessary, will not in itself improve the ability of practitioners to conduct assessments, for two reasons. First, there is currently no "training pipeline" for practitioners of assessment, so even when doctrine is fixed, practitioners in the field will still flounder. Second, there is no dedicated cadre of experts in the practice of operations assessment, so even if a training program is designed, those who go through it will inevitably revert to their primary military occupational specialties and their knowledge and experience will be lost. This second reason creates two further issues: there will be a lack of feedback from the field to the schoolhouse, so the development of better assessment techniques will stagnate; and there will be no pipeline of advocates for assessment to replace the initial advocate called for above. Thus, improving training for operations assessment relies on three factors: improvement of doctrine, a formal course of instruction, and establishment by the personnel-management community of a military occupational specialty for operations assessment.

The latter deserves further elaboration. There is a popular belief that ORSAs are trained to conduct operations assessment, when in fact they are not. I believe this stems from a broader confusion of the terms "operations assessment" and "analysis" (or "operations research"). A practical way of differentiating the two might be to say that operations assessment focuses on measuring the progress of an operation, while operations analysis focuses on optimizing the performance of units and individuals (i.e., the organization) conducting the operation. These are distinct activities. Accordingly, we should stop presuming that people trained in operations analysis are somehow experts in operations assessment. Additionally, we should realize that by tasking ORSAs with operations assessment we are unconsciously sacrificing our capability to conduct operations *analysis* (i.e., to optimize our performance). Hence my assertion that what is required is both a formal course of instruction for operations assessment *and* a dedicated military occupational specialty in it.

Improving Processes and Products. It would be easier to design better assessment processes and products were doctrinal and training issues resolved, but in the interim there are steps that can be taken. To begin, practitioners of operations assessment should abandon the sample framework in FM 5-0 (figure 1). As discussed above, it does not balance qualitative and quantitative information as

doctrine (and common sense) dictates, nor is it "mathematically rigorous." Adequate arguments in support of this notion have been made, and I will not rehash them here.[24] Instead, I will highlight three key shifts in thinking that, if implemented in the field, would go a long way toward improving our current attempts at assessment.

First, it is absolutely necessary to balance quantitative and qualitative information. While it is easier to work with numbers and their extensive use tends to enhance the appearance of objectivity and robustness of assessment (if only through a facade of rigor), from a practical viewpoint it is silly to expect that one can measure the progress of a military operation through quantitative means alone. Thus, instead of eschewing qualitative information as "unreliable" or "too subjective," we should embrace both qualitative and quantitative sources, so long as the information is useful in addressing progress toward mission accomplishment.

The second shift in thinking is to move away from slide shows and stoplight charts as the products of operations assessment. A recommendation made elsewhere that practitioners move toward narrative formats for their products is solid and should be accepted.[25] Again, from a practical viewpoint, it is naïve to think that something as simple as a colored map or a series of red, yellow, and green circles can convincingly communicate progress in something as complex as warfare. Such presentations inevitably engender questions from the audience that require further explanation; arguments that they can stand on their own are contrary to empirical observation. While narratives can be more time-consuming both to write and to read, for assessment they have a number of advantages: they allow variations and nuances across the area of operations to be captured and appreciated; they remind people of the context and complexity of the operation; they force assessors to think through issues and ensure that their assessment is based on rigorous thought; and they are the only way to ensure that a proper balance is struck between quantitative and qualitative information, analysis and judgment, and empirical and anecdotal evidence.[26]

The third shift in thinking is to realize that to assess progress in a modern military operation properly, it is necessary to gather, analyze, and fuse information on the activities of enemy ("red"), civilian ("white"), and friendly ("blue") forces.[27] Our military is not well suited to doing this. Currently, intelligence organizations focus on information pertaining to the enemy and to a lesser extent on civilian activities, and the good ones perform some fusion of the two.[28] As highlighted above, operations analysts typically gather and analyze information about blue forces. However, there is no entity that currently specializes in fusing and analyzing information across the red, white, and blue spectrum. This is an area in which future operations assessment cells could look to specialize.

Currently, though, what one finds in a place like Afghanistan is a cadre of people gathering and analyzing information on the enemy, a much smaller group focused on civilians, and hardly anyone gathering and analyzing material on blue-force activities (largely because the bulk of ORSAs are manning assessments cells). This absence of blue-force data collection and analysis and of red/white/blue fusion severely constrains our ability to link blue-force actions with changes observed in the environment. These are serious problems that have not yet been widely appreciated as primary reasons why assessments for Afghanistan are failing. Recognition would go far toward improving current assessments and would induce a further realization that more emphasis needs to be placed on data collection, management, and analysis resources across the red/white/blue spectrum for future military operations.

Increasing the Interest of Commanders. If the above issues were worked out, the indifference of commanders as part of the failure cycle would likely fix itself, since many of the theoretical promises of assessment would be realized in fact. However, two additional steps could be taken to ensure that once commanders become interested in assessments they stay interested.[29] The first is to include in the training that commanders receive at least a cursory discussion of operations assessments, their purpose and utility and how they can be effective tools for measuring and communicating progress (this would be useful for planners to hear as well). This discussion should be facilitated by someone with experience with assessments in the field. Second, commanders should be instructed as to the importance of their own involvement in the assessment process, since if a commander does not back the process the staff will quickly stop supporting it. Additionally, commanders can use the process as a means of articulating and periodically adjusting their guidance to the staff regarding broader intent, priorities, and focus of effort.

TIME FOR A RESET

The problems with operations assessment run much deeper than simply having poor metrics. There is an entire failure cycle at work, and until its associated issues are rectified the theoretical promises of operations assessment will continue to go unrealized. To recap, these issues are identifying an advocate for assessments, fixing our planning and assessment doctrine, creating a military occupational specialty and formal course of instruction for operations assessment, and shifting our thinking away from strictly quantitative and picture-based assessment products toward balanced, comprehensive, analytic narratives. Until and unless these issues are addressed, my overarching recommendation is to *stop doing operations assessments altogether.* The bulk of current assessment

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products and processes for Afghanistan, for example, do as much harm as good. As has been argued, they consistently undermine the transparency and credibility of military judgment, because they themselves are neither transparent nor credible.[30] Additionally, current efforts on generating better metrics are simply tweaking the margins of a much larger problem. Until the failure cycle is completely and comprehensively fixed, we should stop pretending that assessments are playing a useful role and acknowledge the opportunity cost of using untrained staff officers and specialists in operations research and systems analysis to conduct them. Overall, we would be better served to take a "time-out" on assessments, fix the failure cycle, and come back with an improved approach. Continuing on our current circular path will simply ensure that progress in the next war will be as difficult to measure as progress in our current wars.

NOTES

1. Stanley McChrystal, letter to Secretary of Defense, "COMISAF's Initial Assessment," 30 August 2009, unclassified redaction, available at media.washingtonpost.com/.

2. NATO Allied Information Sharing Strategy Support to ISAF Population Metrics and Data Conference, Joint Forces Command, Brunssum, the Netherlands, September 2010.

3. For planning, see Jonathan Schroden, "Fixing Assessments in Afghanistan," February 2010, available to U.S. government entities upon request; for data, ibid., and Ann Marlowe, "Fighting a Smarter War in Afghanistan," *Wall Street Journal,* 20 December 2009; for doctrine, William Gregor, "Military Planning Systems and Stability Operations," *Prism* 1 (June 2010), pp. 99–114, and Ben Connable, *An Alternative to Effects-Based Campaign Assessment in Afghanistan* (Santa Monica, Calif.: RAND, forthcoming); for processes and products, Stephen Downes-Martin, "Assessments Process for RC(SW)" (draft, Center on Irregular Warfare and Armed Groups, Naval War College, Newport, R.I., 24 May 2010), and Schroden, "Fixing Assessments in Afghanistan."

4. For papers, see, for example: David Kilcullen, "Measuring Progress in Afghanistan," in *Counterinsurgency* (New York: Oxford Univ. Press, 2010), pp. 51–83; Michael O'Hanlon and Hassina Sherjan, *Toughing It Out in*

Afghanistan (Washington, D.C.: Brookings Institution, 2010), pp. 79–88; John Agoglia, Michael Dziedzic, and Barbara Sotirin, *Measuring Progress in Conflict Environments: A Metrics Framework* (Washington, D.C.: Endowment of the U.S. Institute of Peace, 2010); Jason Campbell, Michael O'Hanlon, and Jeremy Shapiro, "How to Measure the War," *Policy Review,* no. 157 (October/ November 2009), pp. 15–30; Andrew Exum, Nathaniel Fick, Ahmed Humayun, and David Kilcullen, *Triage: The Next Twelve Months in Afghanistan and Pakistan* (Washington, D.C.: Center for a New American Security, 2009), pp. 23–26; Jonathan Schroden, "Measures for Security in a Counterinsurgency," *Journal of Strategic Studies* 32 (2009), pp. 715–44; Anthony Cordesman, *The Uncertain "Metrics" of Afghanistan (and Iraq)* (Washington, D.C.: Center for Strategic and International Studies, 18 May 2007), available at www.csis.org/; James Clancy and Chuck Crossett, "Measuring Effectiveness in Irregular Warfare," *U.S. Army War College Quarterly* 37 (Summer 2007), pp. 88–100; Austin Long, *On "Other War": Lessons from Five Decades of RAND Counterinsurgency Research* (Santa Monica, Calif.: RAND, 2006), pp. 39–40.

5. Joseph Soeters, "Measuring the Immeasurable? The Effects-Based Approach in Comprehensive Peace Operations" (draft revision of a paper presented at the Tenth European

Research Group on Military and Society Conference, Stockholm, Sweden, 23 June 2009).

6. Jason Campbell and Michael O'Hanlon, "Measuring Progress in Iraq," *Wall Street Journal,* 13 July 2007; Frederick W. Kagan, "Measuring Success," *Armed Forces Journal* (January 2006); Andrew Krepinevich, "How to Win in Iraq," *Foreign Affairs* (September/ October 2005); Michael P. Noonan, "Iraq and the 'Metrics' System," *Foreign Policy Research Institute E-Notes* (September 2007).

7. U.S. Joint Staff, *Joint Operations,* Joint Publication [hereafter JP] 3-0 (Washington, D.C.: 22 March 2010, incorporating change 2) [hereafter JP 3-0], p. IV-30, available at www .dtic.mil/; and *Joint Operation Planning,* JP 5-0 (Washington, D.C.: 26 December 2006) [hereafter JP 5-0], p. III-57, available at www .dtic.mil/.

8. U.S. Army Dept., *The Operations Process,* Field Manual [hereafter FM] 5-0 (Washington, D.C.: 26 March 2010) [hereafter FM 5-0], p. 6-1. (Also issued by Headquarters, U.S. Marine Corps, as Marine Corps Warfare Publication [MCWP] 3-33.5.)

9. U.S. Army Dept., *Counterinsurgency,* FM 3-24 (15 December 2006) [hereafter FM 3-24], p. 4-6, available at www.fas.org/.

10. JP 3-0, p. IV-30; JP 5-0, p. III-57.

11. FM 5-0, p. 6-1.

12. FM 3-24, p. 4-6.

13. Downes-Martin, "Assessments Process for RC(SW)"; Connable, *Alternative to Effects-Based Campaign Assessment in Afghanistan.*

14. FM 5-0, p. 6-1.

15. Ibid., pp. 6-6 to 6-7.

16. Ibid., p. 6-7.

17. Ibid., p. H-5.

18. *Assessment and Measures of Effectiveness in Stability Ops,* CALL Handbook 10-41 (Fort Leavenworth, Kans.: Center for Army Lessons Learned, 2010).

19. Ibid., pp. 12, 19–21.

20. James N. Mattis, "Assessment of Effects Based Operations" (memorandum, U.S. Joint Forces Command, Norfolk, Va., 14 August 2008), available at smallwarsjournal.com/.

21. Connable, *Alternative to Effects-Based Campaign Assessment in Afghanistan,* p. 37.

22. FM 5-0, p. H-2. Instead of deriving desired effects (DEs) from a plan's objectives and then writing MoEs to measure the achievement of the DEs, FM 5-0 suggests that a commander broadly describe an operation's end state in the commander's intent. Desired conditions are then derived from the intent (end state) and are measured using MoEs. While the language is slightly different, the end result is much the same.

23. As evidence of this, at the U.S. Naval Postgraduate School, in Monterey, California, the curriculum for operations analysis consists of advanced math, modeling and simulation, and programming courses. It does not contain any courses on campaign assessment. See "Academic Catalog," *Naval Postgraduate School,* www.nps.edu/.

24. Downes-Martin, "Assessments Process for RC(SW)"; Connable, *Alternative to Effects-Based Campaign Assessment in Afghanistan.*

25. Connable, *Alternative to Effects-Based Campaign Assessment in Afghanistan.* His arguments concerning the pitfalls of these approaches are spot-on. Note that by "narrative," neither Connable nor I mean "written opinion" but rather something akin to a research paper (or in Connable's terms, a fully sourced intelligence product). In this format, an argument of progress or regression is put forth in the context of the objectives being assessed, using pertinent facts and figures as support for the argument.

26. A (lengthy) example of this approach can be found in Morgan L. Courtney, *In the Balance: Measuring Progress in Afghanistan* (Washington, D.C.: Center for Strategic and International Studies, 2005). Additionally, the ISAF AAG has begun using a narrative format for its quarterly assessments (though these remain classified).

27. This is perhaps more true in a counterinsurgency, but given the prevalence of the media and the growing likelihood of military conflicts playing out in or near areas of significant civilian populations, information from all three sources will be increasingly important in conventional wars as well.

28. Michael Flynn, Matt Pottinger, and Paul Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan* (Washington, D.C.: Center for a New American Security, 2010).

29. Of course, if these steps are taken but the rest of this paper's recommendations are not, these actions will only inflate expectations and make this problem worse.

30. Downes-Martin, "Assessments Process for RC(SW)"; Connable, *Alternative to Effects-Based Campaign Assessment in Afghanistan.*