

The LastWord

Joint Warfare Analysis: The Key to Shaping DoD's Future

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Affordability will dominate the US military's planning for the foreseeable future. America has a history of reducing defense spending following a war, and large-scale operations in our longest war are now coming to a close so defense funding is going down. Because of the debt and deficit situations that the nation faces today, it is likely that these developing reductions in defense spending will endure for a longer period of time than in previous drawdowns. The US military is caught between the funding constraints of this national budget environment and the steadily increasing capability demands of pacing new and globally proliferating technologies that sharply target US military strengths. Focusing flat or declining defense resources on the capabilities that matter most will be critically important over the next decade.

There is a great opportunity in this situation to use a thoughtfully structured program of joint capability analysis to identify the most cost-effective concepts of operations and types of capabilities to deal with our military challenges. Such analysis could also potentially identify the most promising directions for development of new

capabilities to deal with new classes of threats. Because so much of what we know about threats and much of what is most effective in our future capability are both classified above the SECRET level, this analysis would have to be done in a highly secure environment. Because US military operations are conducted jointly, the security environment would also have to be cross-service. Despite the existence of a framework for coordinating joint capability analysis that is tri-chaired by Office of the Secretary of Defense (OSD) Policy, OSD Cost Analysis and Program Evaluation (CAPE), and the Joint Staff J-8 but seldom exercised, this type of analytic coordination is not happening today on the scale and at the rate that the fiscal situation requires. Such work as is being done is being done separately by diverse segments of the Department of Defense (DoD), each working to their own well-intentioned individual agenda. The analytic community is not being utilized efficiently or effectively on a DoD-wide basis to do what we know how to do. No one is coordinating our collective joint efforts. We need to do better.

The foundation of warfare analysis is the definition (always somewhat speculative) of a campaign or scenario that provides the threat, geogra-



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phy, military objectives of both sides, political environment (what nations are involved in what manner), and a projected timeline of events leading up to conflict. This can be either an existing current-year operational plan (OPLAN) campaign from a combatant commander (COCOM), or a future-year defense planning scenario from the OSD (Policy). Both exist in significant numbers and the process of developing new or updating existing ones is fairly healthy, even if painfully slow. A key issue for analytic purposes is what scenario or combination of them should be used in what manner to provide the analytic framework for force and program planning. The exact blend of OPLANs and future-year planning scenarios to be used for force structure analysis is always a point of debate within DoD, especially

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around Quadrennial Defense Reviews, but for most other forms of analysis, each scenario is evaluated separately. So the scenario foundation for analysis is fairly diverse and robust. But what about the structure above it?

The second step in joint warfare analysis is filling in the structural details of a campaign: how we project the enemy will proceed to achieve military objectives and how we would deploy and employ our own forces and capabilities to defeat this and achieve our own objectives. Obviously, this is even more speculative than scenario definition. The process for doing this involves a significant staff effort and the application of warfighter military judgment through workshops and wargames, either at the COCOM level (for OPLANS) or led by the Joint Staff for future-year scenarios. Once again, this is a step where there is a significant amount of effort underway. What is missing from this step at both the COCOM and the OSD levels is the systematic application of fully joint, highly classified campaign-level analysis to inform the selection of the courses of action and types of forces and capabilities that are most likely to be successful in achieving the desired outcome. Much of the work today uses no analysis at all; the rest uses table-top insights with spreadsheets or analytic structures and tools that do not incorporate all services appropriately and do not include the highest classification and most effective US capabilities. The services of the analytic community are not being used in the way that they could and should be.

So why is this critical step in joint warfare analysis, the application of campaign-level analytic techniques, being underperformed? The first reason is a philosophical prejudice against this type of analysis due to the complexity of the models and the long

chain of assumptions that are used in their inputs. OSD CAPE (formerly PA&E) disestablished their unique capability and staff for joint campaign analysis a few years ago over this issue, as did US Pacific Command (PACOM). Although the Joint Staff, PACOM, CENTCOM, and multiple OSD offices other than CAPE have seen a continuing need for this type of work and sought to set up replacement capability since then, none have had the staff resources and/or analytic expertise to succeed. The second reason for not having the right kind of joint campaign analysis is administrative. It is extraordinarily difficult to get bureaucratic approval to put all the technical details for highly classified programs from all services, along with the highest-classification threat information, simultaneously on the same set of computers on a sustained basis and then clear the number of working-level analysts that would be required to do wide-scale joint analysis into this whole set of information.

OSD (CAPE) is correct in saying that campaign analysis is built on many debatable assumptions and complex, labor-intensive models. The power of this type of analysis, however, is that it provides a structured common joint warfare framework within which essential elements of warfighting can be accounted for systematically. Good analysts can use this framework to establish a common operational context for detailed analysis of specific issues with mission-level models. Or they can use campaign-level models to compare the impact of changing scenario assumptions across a range of realistic possibilities. The campaign analysis provides a frame of reference, underpinned by real effectiveness calculations rather than purely military judgment, within which the value of specific systems, elements of force structure and their arrival

rate, new technology options, and various operational concepts can be compared quantitatively. The “scores” that are the direct campaign model outputs are not the value; qualitative comparative insights—often not obvious from intuition alone—about what is likely to work better and why are the key and unique result from the rigor of this framework.

Navy and Air Force use campaign analysis extensively for just these reasons, and began teaming to conduct multiservice campaign analysis incorporating their Air-Sea Battle concept of operations in 2010 after OSD disestablished the fully joint system. The insights that come from campaign-level analysis continue to be extremely useful to the leadership of these two services, and the products that have resulted from their joint effort have been eagerly sought by a range of offices in OSD and several COCOMs. The Defense Department needs this kind of joint warfare analysis work as one of the pieces of an analytic foundation for developing the best possible current-year OPLANS and for cost-effectively shaping the future US military.

The Navy-Air Force work, for all its strengths, still has one weakness. Neither service can populate its respective campaign-analysis computer systems (which both run the same model, STORM, using the same starting database) with the most highly classified or “black” programs of the other service. So each service has to complete the joint campaign with acknowledged programs then go off and do additional runs, separately by service, to fully incorporate their other programs. Although the Joint Staff has, after years of effort, achieved the bureaucratic authority to run campaign-analysis computers with all classified programs of all services, they do not have the

staff capacity or tour length for their largely military staff to do sustained work at the scale needed for fully joint large-scale campaigns. Interestingly enough, various offices in OSD other than CAPE have found such highly classified work useful to their mission and have been granted approval to do it on an episodic basis using nongovernment contractor facilities and staff. There is a clear need for a standing fully joint government-run campaign-level analytic process with full service participation. No one has taken charge at the joint level to assemble the authorities and resources to make this happen.


I spend a great deal of time trying to stay aware of what analytic work is being done throughout the Defense Department on warfighting capability issues of interest to the Navy. This is not easy; each time I think that I have found it all, I discover new pockets of well-intentioned effort being performed somewhere, much of it being done by the technical community of federally funded and university R&D centers with money from one separate office or another in OSD. Most of it is good in technical quality, but the work in each place is often based on entirely different starting assumptions about concepts of operations, scenario, etc., than other work on related

subjects done elsewhere. This makes for good debates about assumptions versus analytic conclusions, but makes it very difficult for any senior leader to integrate the results into a coherent picture, even if they were aware of all the results and the divergent assumptions behind them. And there is significant inadvertent redundancy of effort simply due to lack of awareness of what others are doing or have done. There is no single place or forum for coordination or even exchange of information of who is working on what analytic task. Each service has an internal requirement for such sharing and coordination within their own service, but there is no requirement or method for exchanging or sharing such information within OSD or at the joint level.

When resources decline, the importance of analysis increases. When every dollar in DoD has to be used efficiently, a carefully structured and comprehensive but nonredundant program for coordinated joint analysis should be a key element of making this happen. The Defense Department is in fiscal extremis right now, and we do not have in place a structured joint program of analysis that operates at the scale or with the focus needed to support DoD leadership's ability to

make good capability-based resource decisions. Each service separately has appropriately structured analytic programs that its own leaders use internally, and the services sometimes collaborate where they see opportunities, but they are doing this independently as coalitions of the willing. OSD operates on the separate analytic agendas of its multiple organizations. The DoD-wide joint analytic process has actually gone backward over the last several years, with the OSD/J-8 chaired joint analytic steering committee falling into disuse and DoD-wide campaign analysis being abandoned. Big program and force structure decisions are being made too often on the basis of individual topical and nonjoint analysis, if analysis is used at all. We can and must do better than this.

About the Author

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Union, the once bipolar world would be replaced by a multipolar one. The emerging national and international security problems would likely be quite different from those experienced during the Cold War. We would be faced not only with new problems, but also with new kinds of problems requiring new tools, new ideas, and new analytic approaches for solution. A different format would be needed for the proper exchanges among analysts. Thus, the Cornwallis Group experimented with scheduling fewer papers and allow-

ing presenters sufficient time to fully explore their ideas and approaches in contradiction to the traditional format of symposia. The traditional formula provides for the maximum number of presentations, with 20 minutes of presentation and a few minutes for questions. The Cornwallis format allows for a great interchange between the speakers and the audiences. This unique approach has worked successfully, as the bookshelf of proceedings for the first 18 symposia attest. The proceedings are filed electronically on

the Cornwallis website (www.thecornwallisgroup.org).

As noted earlier, I am proud to be invited to deliver the Professor Ronnie Shephard Memorial Address at the traditional Thursday banquet during the symposium.

Further information can be found on the ISMOR website, www.ismor.com, or by contacting Gene Visco at visco4@cfl.rr.com or Eugene. visco@lmco.com. 