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14. ABSTRACT

Geographic Combatant Commanders and Design. Despite a vigorous debate within the joint community, it appears that joint doctrine will soon incorporate tenets of design, similar to U.S. Army and U.S. Marine Corps service doctrine. Regardless of the debate, this paper objectively evaluates and concludes that there is substantial merit in design, particularly as it relates to critical thinking, unity of effort and regressive planning processes. While awaiting doctrinal inclusion, geographic combatant commanders should include tenets of design in key staff agencies. This paper recommends incorporation of design into two primary organizations within the existing structure of geographic combatant commands that would benefit most from the inclusion of design: the Joint Interagency Coordination Group and the Standing Joint Force Headquarters-Core Element. These two organizations will deliver the best results for geographic combatant commanders in the interim period.

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Design, Geographic Combatant Commander, Decision making, Operational Planning, Critical Thinking, Unity of Effort, Joint Interagency Coordination Group, Standing Joint Force Headquarters

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<u>GEOGRAPHIC COMBATANT COMMANDERS AND DESIGN</u>

by

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Lieutenant Colonel, U.S. Air Force

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the
requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily
endorsed by the Naval War College or the Department of the Navy.

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Contents

Abstract

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INTRODUCTION

Design[1] has quickly followed on the heels of Effects Based Operations (EBO) as the hot topic of recent operational art thought. While EBO has lost favor in the joint community, design is surging and has usurped EBO in real terms of doctrinal incorporation. Indeed, the Army and Marine Corps have fully embraced basic tenets of design, while the Navy and Air Force appear content to sit on the sidelines, at least for the near term. At the joint level, design ideas will likely be incorporated into doctrine, even as the debate over its value continues. This conundrum leaves Geographic Combatant Commanders (GCC) and their staffs in a precarious position as they attempt to anticipate how design will be parceled out as doctrine, and more importantly, what to do in the interim.

At the crux of the issue is whether design, by definition less of a tangible science and more of an esoteric art, is actually a new way of approaching problems, or whether it is merely restating an obvious fact, that campaign decision making and planning is complex. The debate is large, and works its way into multiple lines of thought, both pro and con. A quick glance at the U.S. Army's Combined Arms Center blog can give operational art professionals and Monday morning armchair quarterbacks alike plenty of arguments for their respective camps.[2] This short essay certainly will not end the debate. However, it will demonstrate that GCCs can realize substantial advantages by incorporating design into their decision making and planning efforts while awaiting doctrinal amalgamation at the joint level. Furthermore, this should be accomplished not because it is the latest operational art fad or because some services are already beginning to integrate it into doctrine. Instead,

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[1] Throughout this paper, the term design will be used to refer to recent conceptual ideas, as opposed to traditional military concepts of operational design.
[2] U.S. Army, Command and General Staff College, History Department, Combined Arms Center Blog, "Design: answering the right question wrongly," http://usacac.leavenworth.army.mil/blog/blogs/hist/archive/2010/09/22/design-answering-the-right-question-wrongly.aspx (accessed 24 September 2010).

GCCs should take the initiative and seize upon design concepts for tangible reasons, such as promoting critical thought through valuable new vocabulary, improving unity of effort by aiding traditional planning processes, and assisting regressive planning efforts by holistically understanding the environment and problem. While awaiting joint doctrinal implementation, in whatever form it may take, this essay will also include some recommendations for GCCs as they struggle with perhaps the most difficult question of all--where to incorporate design into their staff processes and how to use it. Finally, it will promote additional thought on the subject, encouraging further deliberation for GCCs and the entire debate writ large.

BACKGROUND

The theory of design is somewhat abstract, similar to Clausewitz's *coup d'oeil* or even the practice of operational art itself. In simple terms, design is an attempt to describe how to address problems that seem too complex for human comprehension, thus rendering "traditional methods for understanding and potential approaches to problem solving" ineffective.[3] The Joint Operation Planning Process and the Army's Military Decision-Making Process are two examples of such methods. Because of the complexities involved, Colonel Stefan J. Banach, Director of the U.S. Army's School of Advanced Military Studies, explains that design attempts to provide "commanders with an additional layer of understanding for incomprehensible problem situations that promote conscious problem-setting and critical reflection."[4] It does this through critical and reflective thinking, understanding the operational environment, setting the problem, creating a theory of action and then working the problem to achieve a strategy, or design concept, understanding all

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[3] Stefan J. Banach, "Educating by Design: Preparing Leaders for a Complex World," *Military Review*, March-April 2009, 97.
[4] Stefan J. Banach, "The Art of Design: A Design Methodology," *Military Review*, March-April 2009, 113.

along that circumstances will likely change.[5] This may describe a quandary presented to GCCs and their key staffs, charged with planning campaigns or major operations as they seek desired end states in consonance with national strategic aims. Faced with such complex problems, GCCs and their planning staffs should learn the basic concepts of design, as it will assist them in their contingency planning efforts.

DISCUSSION / ANALYSIS

<u>Design's vocabulary will enhance critical thought.</u> The status quo for GCC decision making and planning processes has been insufficient in meeting recent challenges where conventional annihilation campaigns have been replaced with counterinsurgencies, hybrid warfare and nation-building efforts, to name a few. As Colonel D. King, Director of Concepts and Plans Division, U.S. Marine Corps, states, "our conventional military preeminence virtually guarantees adversaries will resort to irregular means."[6] While unconventional forms of warfare increase, deliberate critical thinking will be increasingly required to conceptualize campaigns and major operations. Two authorities on the subject of national security, Steven Metz and Raymond Millen, have further argued that "as the United States confronts this threat [in this case, the authors were speaking specifically of insurgencies], extrapolating old ideas, strategies, doctrine, and operational concepts is a recipe for ineffectiveness. Reconceptualization is needed."[7] Design can assist in this "reconceptualization" by reinvigorating critical thinking.

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[5] Banach, "Art of Design," 108-113.

[6] U.S. Marine Corps, *Tentative Manual for Countering Irregular Threats: An Updated Approach to Counterinsurgency Operations* (Quantico, VA: Marine Corps Combat Development Command, 7 June 2006), ii.

[7] Steven Metz and Raymond Millen, *Insurgency and Counterinsurgency in the 21st Century: Reconceptualizing Threat and Response* (Carlisle Barracks, PA: U.S. Army Strategic Studies Institute, November 2004), vi.

Critical thinking skills are highly advocated in various levels of professional military education. Dr. Peter Facione, a leading international critical thinking expert, defines critical thinking in simple terms as "how you approach problems, questions, issues."[8] Not ironically, a basic definition of design could use the same phrase; the concepts are that complementary. It is not surprising, then, that design fully embraces critical thinking skills as it applies to dealing with complex problems. In fact, U.S. Joint Forces Command's Joint Warfighting Center's *Design in Military Operations: A Primer for Joint Warfighters*, defines design as "a methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them."[9] Even while critical thinking concepts have become increasingly interwoven throughout doctrinal and operational art vernacular, however, a vein of resistance to design terminology has emerged. Dr. Milan Vego, an operational art expert from the U.S. Naval War College, has argued that design vocabulary is "unintelligible" and ultimately "will result in having two sets of terms-- one for [systemic operational design] SOD[10] and another for the traditional military decision making process."[11] He further warns that "such a situation will be untenable and should never be allowed."[12] Vego's concerns are justified, since decision makers and planners must use terminology that is clearly defined and understood. In addition, a review of the literature in this paper's bibliography demonstrates that numerous design proponents have advocated different precepts of design inclusion into military decision making and planning processes,

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[8] Peter A. Facione, *Critical Thinking: What it is and Why it Counts* (Millbrae, CA: Measured Reasons and The California Academic Press, 2010), 9.
[9] U.S. Joint Forces Command, *Design in Military Operations: A Primer for Joint Warfighters,* Joint Warfighting Center, Joint Doctrine Series, Joint Innovation and Experimentation Directorate, Pamphlet 10 (Suffolk, VA: U.S. Joint Forces Command, 20 September 2010), 4.
[10] systemic operational design, or SOD, is congruent with the term design used in this paper.
[11] Milan N. Vego, "A Case Against Systemic Operational Design," *Joint Forces Quarterly*, no. 53 (April 2009), 74.
[12] Ibid.

each accompanied with similar, although varied, terms. [13] As these theories are relatively new to military thinkers, however, it will take time for better comprehension and standardization of terms and definitions. Presumably, joint doctrine writers are currently tackling this issue. Discarding design ideas simply based upon so-called "unintelligible" vocabulary would stagnate a valuable new tool which can assist decision makers and planners in breaking through traditional military decision making and planning processes to get to real understanding of complex problems.

If every situation confronted by GCCs and their staffs were similar, a simple checklist-type format would prove valuable, and traditional military templates, such as the Joint Operation Planning Process, would be more than adequate. Design, however, emphasizes that no two problems are the same, so a proper framing of the environment and the problem is required. Therefore, a new approach must be undertaken for each and every problem. In addition, even when reassessing an existing problem (during operation plan reviews, for example), design assumes the situation has likely changed due to the nature of complex or adaptive systems, requiring a new frame of reference, or reframing.[14] With traditional planning processes, there is no such guarantee as its inherent methodology tends to automatically place information into a particular compartment, never intending to deal with it again--categorizing a piece of information is progress, while revisiting that same piece of information is a setback. Even if challenged, existing assumptions may simply be reinforced, since the process used to revalidate assumptions was likely the same one that created the assumptions in the first place. For example, in Operation Iraqi Freedom, "the Pentagon assumed that U.S. troops would be greeted as liberators and that an Iraqi

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[13] The focus of this paper is not to define design terms. If the reader requires a deeper understanding of design and its associated terminology, refer to the bibliography for appropriate sources of information.
[14] Ideas similar to: U.S. Joint Forces Command, *Design in Military Operations*, 16-17.

government would be stood up quickly."[15] This assumption, despite multiple iterations of

the plan, was never critically challenged after having been initially assessed and categorized.

Armed with an understanding of design ideas via its associated lexicon, however, a GCC and

a specialized staff, such as a Joint Interagency Coordination Group or a Standing Joint Force

Headquarters-Core Element, could take a new look at the problem. With design, they would

inherently realize that it has likely changed. Depending upon the situation, the previous

assumptions may or may not be revalidated, but the process has ensured a fresh look at the

problem through the lens of a well-thought-out conceptualizing model, design.

The new terminology of design need not be feared, especially with critical thinking as

its cornerstone. Doctrine, along with decision making and planning processes should always

be shifting, incorporating best practices and ideas that further collective understanding.

Dogmatic, protectionist thinking to preserve current thinking on doctrine and processes

should not be allowed. Even concepts of now-discarded Effects Based Operations had

valuable lessons for the military, as the United States is presently all too aware of unintended

second- and third-order (cascading) effects in our current operations in Afghanistan and Iraq,

concepts that were central to EBO theories. Introduction of design and its terminology will

be no different. New words, definitions and subsequent practices will assist GCCs in

preparing to tackle complex problems, not hamper traditional efforts. Design will bolster

critical thinking. This, in turn, will lead to better unity of effort.

Incorporation of design into decision making and planning processes will

enhance unity of effort. In *A Case Against Systemic Operational Design,* Dr. Milan Vego

states, "in a traditional operational planning process, operational design is not separate but is

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[15] Thomas E. Ricks, *Fiasco: The American Military Adventure in Iraq* (New York, NY: Penguin Books, 2006), 111.

an integral part of decision making and planning."[16] He then argues that the introduction of

design theories may be "potentially harmful" and that it "unnecessarily fragments the entire

operational decision making and planning process" because design is separate from the

planning process.[17] Vego is correct that there can be no daylight between the decision

making and planning processes. If there is, a disjointed process would exist, hampering unity

of effort. These concerns about design, however, are an oversimplification, postulated as an

all or nothing argument. There is actually plenty of room for a methodology which includes

design in decision making and planning processes. If applied practically, design will not

"fragment" these processes. Instead, design will ensure a better unity of effort as planners

undertake their business with a clearer understanding of the complex environment and

problem. With design, decision making and planning do not need to operate in their

respective vacuums; they are mutually supportive, not mutually exclusive.

During contingency planning, GCCs and their planners must make all attempts to

fully understand the problem presented to them. Joint doctrine captures this in simple terms.

For example, the Mission Analysis step of Joint Publication 5-0, *Joint Operation Planning*,

asserts that "the primary purpose of mission analysis is to understand the problem and

purpose of the operation and issue appropriate guidance to drive the rest of the planning

process."[18] Inherently then, the initial stages of the Joint Operation Planning Process require

as complete an understanding of the problem as possible. If the problem is not thoroughly

understood up front, guidance for combatant command and subordinate unit planners may

not be clear, or even if it is clear, it may be misguided. At precisely this critical juncture

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[16] Vego, "Case Against Systemic Design," 74.
[17] Ibid.
[18] Chairman, U.S. Joint Chiefs of Staff, *Joint Operation Planning*, Joint Publication (JP) 5-0 (Washington, DC: CJCS, 26 December 2006), III-20.

where the problem is understood and transmitted to planning staffs as guidance, design will assist the existing process. As Dr. Richard Swain states, "It is an error of perspective to consider design as either a competitor or an inconvenient supplement to formal planning processes…in the end, design is what commanders do before formulating their commander's guidance and statement of intent that initiate formal planning."[19]

The U.S. Army believes in the value of design at the juncture between decision making and planning. A review of current Army doctrine demonstrates that design theories can work in conjunction with the planning process, promoting unity of effort. The Army's Training and Doctrine Command has highlighted the importance of the framing (understanding) effort which "defines the art of the possible, warns what may be unachievable, and anticipates the potential evolution of the problem as operations are executed."[20] Army Field Manual 5-0, *The Operations Process*, further elaborates upon this concept, cementing the belief that "the design concept is the link between design and detailed planning" and that the detailed planning staff should receive guidance through the "problem statement, initial commander's intent, commander's initial planning guidance, mission narrative and other products created during design."[21] By targeting design-influenced guidance throughout these five existing constructs, the Army has identified how to incorporate the theories of design into existing methodology as something tangible for decision makers to grasp, improving unity of effort as planning commences. The GCC level, however, is still operating under existing doctrine without design concepts.

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[19] Richard M. Swain, "Commander's Business: Learning to Practice Operational Design," *Joint Forces Quarterly*, no. 53 (April 2009), 61.
[20] U.S. Army, *The U.S. Army Commander's Appreciation and Campaign Design*, U.S. Army Training and Doctrine Command Pamphlet 525-5-500 (Washington, DC: Department of the Army, 28 January 2008), 22.
[21] U.S. Army, *The Operations Process*, Field Manual (FM) 5-0 (Washington, DC: Department of the Army, March 2010), 3-12.

As a functional combatant commander charged with joint innovation and experimentation, General James Mattis, U.S. Joint Forces Command Commander, has put his stamp of approval on the Army's incorporation of design, and is advocating its importance to the entire joint force."[22] He is particularly concerned with the unity of effort that may be achieved via inclusion of design concepts. In his Memorandum for U.S. Joint Forces Command, *Vision for a Joint Approach to Operational Design*, he states, "Unity of effort is essential to meet the complex challenges described in the *Joint Operating Environment*. Participation of our interagency and multinational partners in the interest of a comprehensive, unified approach to operations is important to the commander's effort to design effective operations."[23] The implied imperative is for GCCs to follow suit. By juxtaposing U.S. Army initiatives at the GCC level, unity of effort can be enhanced with subordinate component commands and also with external agencies and multinational partners, as General Mattis envisions. This is especially valuable as GCCs already have conduits, such as Joint Interagency Coordination Groups and Standing Joint Force Headquarters-Core Elements which typically interact with multiple agencies and foreign governments on a regular basis. The benefits of these important existing relationships can be further enhanced by design. Just as critical thinking will gain traction through inclusion of design, unity of effort will be enhanced as all subordinate commands, interagency departments and multinational partners begin to operate under the same frames of reference. Ultimately, all instruments of national power will be more focused on obtaining desired political end states which will assist traditional regressive planning efforts.

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[22] Gen James N. Mattis, Commander, U.S. Joint Forces Command, Memorandum for U.S. Joint Forces Command: Vision for a Joint Approach to Operational Design, 6 October 2009.
[23] Ibid.

Design will aid regressive planning efforts. Critical thinking and unity of effort will be improved as design concepts are integrated into military decision making and planning processes. This will naturally complement actual operations during transition from the shaping phase into the deterrence, seizing the initiative and dominating phases. Design's real nexus, however, will be through focusing decision makers and staffs on the stabilizing and enabling civil authority phases of an operation. This is especially true today as irregular warfare appears to be on the rise, as discussed earlier. Taking the time up front to properly understand the environment and the problem during contingency planning will provide the Joint Force Commander with a more effective plan as crisis action planning takes over. GCCs can posture key staffs, such as the Joint Interagency Coordination Group and the Standing Joint Force Headquarters-Core Element, for success by more clearly relating the desired ends throughout the entire continuum of operation plan phases. The goal is to ensure regressive, detailed planning begins with the ultimate political end state in mind.

Similar to other elements of design, there is opposition to its applicability in terms of traditional regressive planning. Dr. Milan Vego states that design proponents "assert that by clearly confusing the desired end state and the objective, the envisioned end state serves as a distant and general aiming point rather than a specific objective."[24] Of course, this does not mesh with traditional processes that are rightly "based on a so-called regressive or inverse process, in which the starting point is the ultimate objective of a campaign or major operation."[25] There are two problems with this opposition. The first is something that has always been true of designing campaign or operation plans: the desired state often is a complex, future idea which may invariably prove to be different during execution than

[24] Vego, *Case Against Systemic Design*, 74.
[25] Ibid.

envisioned from the start. This may affect the ultimate objective as well. Due to these complexities, design merely recognizes that the desired state and the objective may change as the complex or adaptive systems change. There is no deliberate attempt to confuse end states and objectives. Instead, the goal is to try to understand the environment and problem as much as possible to predict, prevent or minimize these changes. The second is the assumption that design will try to replace regressive planning with a more "forward planning" view.[26] Vego is absolutely right that regressive planning is essential. Planners must begin at the end and work backwards to create a plan that is achievable.   Design, however, will not threaten traditional regressive planning efforts. In fact, U.S. Joint Forces Command has recently provided some guidance on how design's "holistic" approach will serve to frame the problem and "produce a broad approach to guide detailed planning."[27] Even more importantly, because design looks at the entire system holistically, regressive planning will place greater emphasis on desired states and ultimate objectives that will set up the stabilizing and enabling civil administration phases of operations for success.

Operation Iraqi Freedom (OIF) provides some insight into how design may have assisted with regressive planning efforts. As United States and coalition troops completed the dominating phase of OIF, the shift to stabilization operations was poor. There are many reasons for this, but in a strictly germane scope, the lack of a holistic understanding of the environment and framing of the problem prevented planners from obtaining a smooth transition. This was not entirely due to a lack of planning. Prior to the invasion, U.S. Central Command (CENTCOM) planners had begun preparations for post-conflict operations. General Anthony Zinni, the CENTCOM Commander before General Tommy Franks, had

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[26] Vego, *Case Against Systemic Design*, 74.
[27] U.S. Joint Forces Command, *Design in Military Operations*, 27-28.

war-gamed with an Iraqi contingency Phase IV (stabilize) plan.[28] Michael Gordon and

General (retired) Bernard Trainor criticized the plan, however, pointing out in their book,

Cobra II, that the "effort was preliminary and focused more on short-term humanitarian

problems than on designing a new U.S.-led organization to run the country after the war and

before the installation of a new Iraqi government."[29] When Zinni left office, the plan was

abandoned. Later, as the war approached, General Franks assigning Brigadier General Steve

Hawkins to head up the stabilization planning effort. However, according to Thomas Ricks'

book, *Fiasco: The American Military Adventure in Iraq*, no post-conflict plan was ever

produced.[30] Finally, with just two months until the start of hostilities, Secretary of Defense

Donald Rumsfeld stood up another organization, the Office of Reconstruction and

Humanitarian Assistance (ORHA); but it was unclear to whom ORHA reported to, Franks or

Rumsfeld.[31] With this brief background, there are a couple of lessons with regard to

regressive planning and design, even while understanding that there were numerous political

and personality reasons which presumably would have stymied improved stabilization and

enabling civil authority initiatives.

First, it is interesting to note that humanitarian-type activities were the extent of

stabilization planning, even as early as General Zinni's watch. This demonstrates that a

holistic approach to the complex problem was not pursued in contingency (known then as

deliberate) planning even well before the conflict. Existing assumptions were largely left

unchallenged. Design's inherent goal of learning about the environment and problem may

have generated deeper understanding about reasonable consequences of military action.

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[28] Michael R. Gordon and Bernard E. Trainor, *Cobra II: The Inside Story of the Invasion and Occupation of Iraq* (New York, NY: Vintage Books, 2006), 158.
[29] Ibid., 159.
[30] Ricks, *Fiasco*, 109-110.
[31] Ibid., 80-81.

Second, as the war approached, CENTCOM was nearly entirely focused on obtaining

President Bush's immediate goal "to remove Saddam Hussein's regime, including destroying

its ability to use weapons of mass destruction or to make them available to terrorists," while

largely ignoring "the broad, longer-term objective" to help Iraq rebuild.[32] Although Zinni,

Franks and Rumsfeld all realized they needed some post-conflict planning, all stabilization

and enabling civil administration preparations were completely tangential to the main

planning effort. Essentially, CENTCOM decision makers and planners were focused on

what the military and its existing processes were good at (dominating) while ignoring the

much harder and very complex problem (rebuilding). Regressive planning was working

backwards, as it should, but it began with the conclusion of the domination phase in mind,

arguably somewhere in the early stages or middle of obtaining the ultimate long-term desired

political end state. Design, by its very nature, would object to isolation of these different

phases. When learning of the environment and problem, the whole of the system must be

analyzed.[33] Design is, therefore, opposed to the compartmentalization which occurred in

OIF, extending even to the fact that different and sometimes geographically separated staffs

were used for conflict and post-conflict planning, respectively. If employed as properly

understood, design may have shifted more emphasis to the post-conflict phases, not by

intrinsically opposing regressive planning as opponents have argued, but by correctly

focusing regressive planning on the desired political end state through a holistic methodology

of understanding. Design and regressive planning are complementary.

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[32] Catherine Dale, *Operation Iraqi Freedom: Strategies, Approaches, Results, and Issues for Congress*, CRS Report 7-5700 (Washington, DC: Congressional Research Service, 2 April 2009), 1-2.
[33] U.S. Joint Forces Command, *Design in Military Operations*, 26.

RECOMMENDATIONS

Design promotes critical thinking, improves unity of effort and complements existing regressive planning efforts. As such, GCCs should incorporate tenets of design into their staff processes. Awaiting inclusion of these ideas into joint doctrine, however, will be slow and methodical while the joint community debates its merits. This is normally the case with new ideas and concepts as the doctrine train moves slowly. Existing decision making and planning processes will also take time to be restructured. In the interim, GCCs are left with the knowledge that design will eventually emerge in joint doctrine, but not quite sure what form it will take. So the question as to how to get ahead of the doctrine and capitalize on design's inherent benefits is an important one to GCCs. There are some logical process-driven areas where design will likely surface with forthcoming design-influenced doctrine, including the Mission Analysis and Joint Intelligence Preparation of the Operational Environment steps of the Joint Operation Planning Process, for example. Completely new processes may be developed as well. Looking at the staff functionally, there are also some J-code directorates where design will likely be infused, such as the intelligence directorate (J-2), operations directorate (J-3), and the plans directorate (J-5). Using design in the above process areas and functional directorates would certainly add value to a GCCs staff. There is a problem, however. Inserting design ideas throughout these various processes and directorates may result in wasted time and effort when joint doctrine is updated, perhaps causing confusion if the doctrine is dissimilar to what was envisioned by a particular GCC. For best results, there are two staff agencies where GCCs should focus their design efforts. These organizations already exist and span the entire spectrum of a respective GCC's staff. In addition, they are small enough to be immediately responsive and effective. Together,

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they provide expertise from all J-codes and have inherent liaison to interagency departments and host-nation and regional governments. These two organizations are the Joint Interagency Coordination Group and the Standing Joint Force Headquarters-Core Element.

Joint Interagency Coordination Groups (JIACG) exist in all six geographic combatant commands. As stated in U.S. Joint Forces Command's *Commander's Handbook for the Joint Interagency Coordination Group*, "The JIACG provides the critical linkage between the military and engaged [United States Government] USG agencies that allow the coordinated application of all instruments of national power."[34] As such, the goal of the JIACG is to obtain as much coordination and unity of effort as possible, ensuring all diplomatic, information, military and economic instruments are effectively exploited in pursuit of U.S. strategic aims. Armed with design, JIACGs can increase their understanding of complex environments and problems in their respective areas of responsibility. Although different GCCs utilize interagency assets in varying ways, the JIACG commonly provides a convenient structure for pulling information, knowledge and experience from disparate U.S. agencies, and has routinely been used as such. However, JIACGs should also regularly push operation plans to outside agencies, welcoming and insisting upon skeptical criticism of assumptions to gain further holistic understanding and thus unity of effort. This is how design will reap rewards for the GCC. While all J-code staffs and subordinate component commands have the responsibility of highlighting erroneous assumptions to the GCC, the JIACG is the only standing organization that can operate throughout the "full spectrum of

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[34] U.S. Joint Forces Command, *Commander's Handbook for the Joint Interagency Coordination Group*, Joint Warfighting Center, Joint Innovation and Experimentation Directorate (Suffolk, VA: U.S. Joint Forces Command, 1 March 2007), II-1.

interagency activities."[35] Therefore, GCCs should insist upon JIACG confirmation of all contingency plan assumptions. Through the lens of design, JIACGs should immediately begin a regimen of reviewing all contingency plan assumptions, applying critical thinking skills as they work with their interagency contacts. Perhaps some of the assumptions in an operation plan are wrong (coalition troops as liberators in Iraq, for example); or perhaps the assumptions only address the military's domination desired end state versus the political desired end state (again, Iraq example). Design in the JIACG will promote critical thinking and unity of effort to more clearly drive traditional regressive planning efforts, particularly through challenging operation plan assumptions. GCCs should begin their design efforts by focusing first on this important organization when determining where and how to use design.

Standing Joint Force Headquarters-Core Element (SJFHQ-CE). As an existing organization charged with "creating situational understanding of focus areas that a combatant commander designates," SJFHQ-CEs already strive to maintain an in-depth understanding of potentially complex problems within their respective areas of responsibility.[36] Arguably, the SJFHQ-CE has a more vested interest than any other staff agency in getting the planning right, since the organization will either forward-deploy as the Joint Task Force Headquarters staff, or it will provide vital reach-back or augmentation during execution.[37] Because they are formed with "habitual relationships with other elements of the GCC staff, subordinate and supporting commanders, and interagency partners," SJFHQ-CEs are naturally poised to achieve successful results during execution.[38] By incorporating design into this highly-

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[35] U.S. Joint Forces Command, *Joint Interagency Coordination Group (JIACG): A Prototyping Effort*, Fact Sheet (Suffolk, VA: U.S. Joint Forces Command, January, 2005).

[36] Douglas K. Zimmerman, "Understanding the Standing Joint Force Headquarters," *Military Review*, July-August 2004, 29.

[37] Ibid.

[38] *A Primer for the Standing Joint Force Headquarters—Core Element (SJFHQ-CE)*, Naval War College Paper #2003A (Newport, RI: U.S. Naval War College, 4 February 2010), 5.

specialized staff, GCCs can better posture planning efforts for success. GCCs should insist upon design education among all SJFHQ-CE staff members, and, more importantly, that all products for the commander's review have been scrutinized with design thinking. When meeting with the SJFHQ-CE, GCCs should participate by asking in-depth, design-focused questions. With the commander's attention squarely fixed on design, the staff will follow suit. This will lead to a more holistic knowledge of the complexities associated with their specified tasks. Working in conjunction with identified agencies, component and supporting commands, and other combatant command staffs, including the JIACG, they will challenge assumptions and be able to frame the environment and the problem more clearly and earlier than might be achieved using traditional planning processes. All participants will have "buy-in" up front as they were all included in the framing process, leading to fewer component and supporting command or interagency "surprises" during execution. This will enhance overall unity of effort. As with JIACGs, GCCs should import design into their SJFHQ-CEs while awaiting joint doctrine updates.

Despite the ongoing debate over its value, design has tangible benefits. Promoting critical thought, improving unity of effort, and assisting regressive planning efforts are three areas where design will prove valuable for GCCs. Therefore, GCCs should seize the initiative while awaiting design's inclusion into joint doctrine by introducing design into their key staffs. The JIACG and the SJFHQ-CE are the two best staffs for design infusion because they are highly-specialized, preexisting organizations that are small and adaptable, and have a broad spectrum of staff expertise and inherent external contacts.

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