

AIR COMMAND AND STAFF COLLEGE

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**The Cognitive Map: Coordinated Planning for the Department of  
Defense and the Department of State**

By

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## **Abstract**

Joint Publication 5-0, *Joint Operation Planning*, highlights the importance of the integration of the military actions with those of other instruments of national power to achieve the desired end state.<sup>1</sup> The DOD planning process lacks a clearly defined to create a systematic approach to effectively integrate the diplomatic, information, military and economic national instruments of power. Department of Defense Joint Publication 1, *Joint Warfare of the Armed Forces of the United States*, states that “the United States relies for its security on the complementary application of the basic instruments of national power: diplomatic, economic, informational, and military.” US involvement in recent conflicts has highlighted a need for a more clearly defined planning process between the Department of Defense (DOD) and the Department of State (DOS) that focuses all the instruments of power (IOP) on the desired end state. Currently there is no process in place to improve DOD and DOS interagency planning.

This paper recommends the Strategic Cognitive Map as a holistic approach to interagency planning. The cognitive map ensures unity of effort throughout all phases of a conflict. In order to implement a change of this magnitude, the US government must enact a law that forces the DOD and DOS to focus on synchronizing and integrating interagency planning and operations; a complete restructuring of the DOD and DOS, similar to the Goldwater-Nichols Defense Reorganization Act of 1986.

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## **Introduction**

Operation Iraqi Freedom (OIF) was plagued with numerous problems from initial campaign planning. The Department of State (DOS) and Department of Defense (DOD) failed to coordinate to ensure the accomplishment of the national strategic end state. “It is absolutely essential to understand that the termination of operations is an essential link between the National Security Strategy, National Defense Strategy, National Military Strategy, and the national strategic end state. The design and implementation of leverage and the ability to know how and when to terminate operations are part of operational design”<sup>2</sup>

Initial planning for OIF didn't properly coordinated between the DOD and the DOS; communication between the Secretary of State, Colin Powell and Secretary of Defense (SECDEF), Donald Rumsfeld was limited in scope. Bob Woodward, a Washington insider, stated the DOD was building a case for war against Iraq while the DOS was pursuing a diplomatic resolution. Donald H. Rumsfeld maintained oversight of the military planning and all classified documents related to the operation while Colin Powell, Secretary of State, was initially isolated from the planning process.<sup>3</sup> The reason why Colin Powell was not included in the process is a matter of speculation; one potential cause for the rift between Rumsfeld and Powell was a personality conflict. Rumsfeld was a micro-manager and liked to keep information close hold; while Powell, a former Army soldier, believed in communication and working as a team. The personality conflict between Powell and Rumsfeld ultimately led to the failure of both departments during OIF planning. The long-term ramifications of these failures continue to strain the US military; despite these failures, the DOD and the DOS hasn't developed a structured planning process.

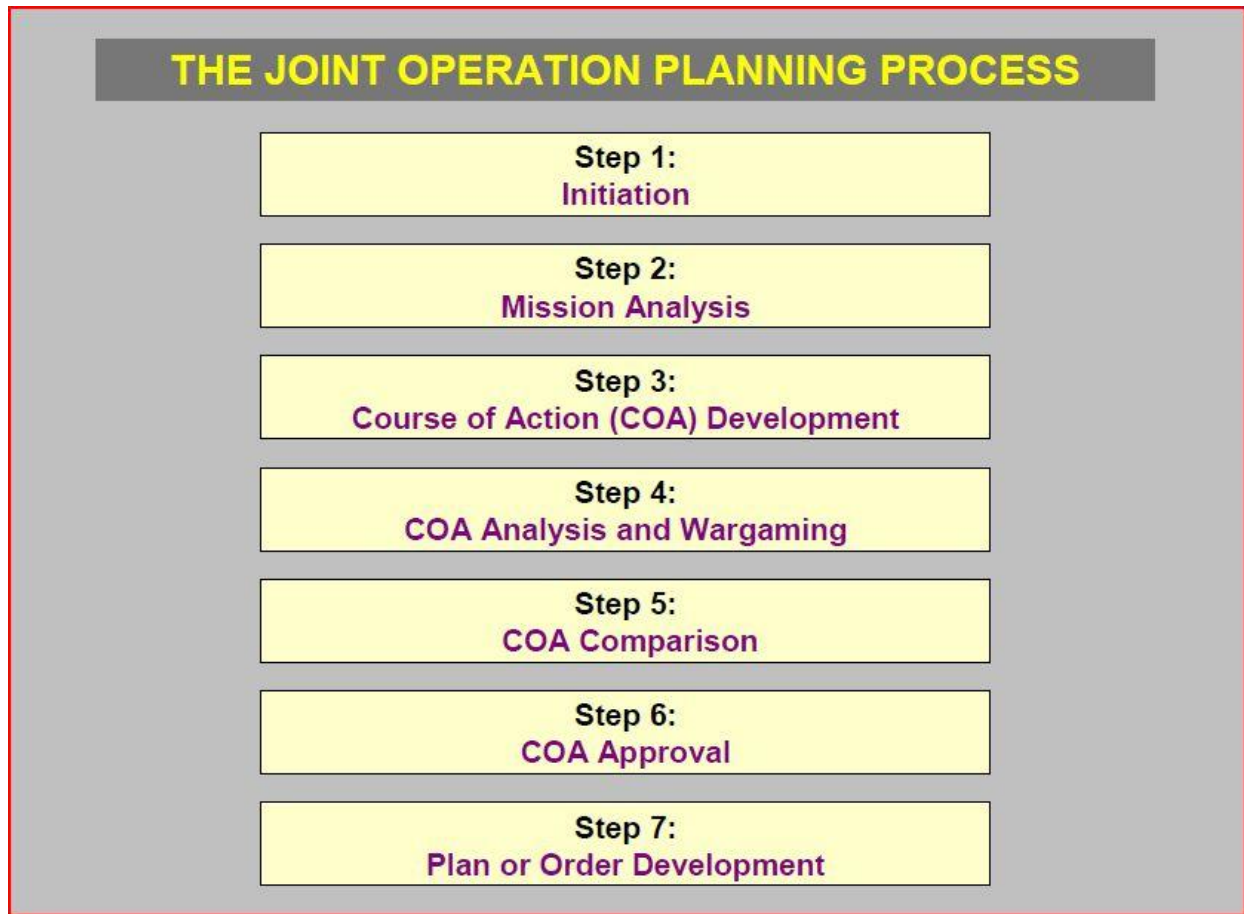
The DOD uses the Joint Operational Planning Process (JOPP) to guide joint force commanders (JFCs) in developing their plans for employment of military power to support national strategic objectives.<sup>4</sup> The DOS uses a similar framework in the Office of the Coordinator for Reconstruction and Stability (S/CRS) to plan operations. This paper will compare and contrast the JOPP and the S/CRS Planning Process; define the elements of the cognitive map, which integrate the DOD and the DOS planning, processes. Finally, this paper recommends the Strategic Cognitive Map as a common planning construct for both departments.

### **Limitations**

The information gathered from the United States Government Draft Planning Framework for Reconstruction, Stabilization, and Conflict Transformation, *Planning Practitioner's Guide*, is a working version of the guide. The overall intent of this paper is to focus on using the cognitive map to serve as a standardized planning tool to bridge the gap between the DOD and the DOS; using the JOPP and the S/CRS planning processes as examples. Regardless of the final planning construct used by the S/CRS, the cognitive map will ensure integration of all the instruments of national power on the national strategic end state.

### **Defining the Joint Operation Planning Process**

The seven steps of the JOPP are Initiation, Mission Analysis, COA Development, COA Analysis and Wargaming, COA Comparison, COA Selection, and Plan or Order Development; the JOPP focuses military planning at all levels of war and covers the full range of military operations.<sup>5</sup>



**Figure 1.<sup>6</sup>  
Joint Operational Planning Process**

**Step 1: Initiation**

The purpose of the initiation step is for commanders to begin the planning process. The President of the United States (POTUS), SECDEF, Chairman of the Joint Chiefs of Staff (CJCS) and/or the commander may initiate the process to begin planning.<sup>7</sup> The Joint Strategic Capabilities Plan and the Contingency Planning Guidance establishes planning guidance; the strategic guidance flows down to the commander via multiple ways: a Presidential Address or national strategic objectives. Strategic guidance gives the combatant commander (CCDR) an initial direction to frame the problem, meet the national strategic end state and strategic

objectives. The national strategic end state defines the conditions that should exist at the end of a campaign or operation.<sup>8</sup> The POTUS or the SECDEF establishes strategic objectives.<sup>9</sup> Strategic objectives may not be clear; this ambiguity complicates the planning process for the military commanders and planners. The DOD requires continuous dialogue with the political masters to ensure that the military is clear on the strategic objectives. At the strategic level, the POTUS receives military and non-military options; this provides the President with the flexibility to respond with the appropriate instrument(s) of power.

## **Step 2: Mission Analysis**

A primary consideration for mission analysis is a clear understanding of the national strategic end state. Mission analysis is one of the most critical steps to the JOPP because it's the step where the commander establishes the mission statement that frames the problem. The mission statement explains the actions that are required and the reason for the action.<sup>10</sup> "The mission statement contains the elements of who, what, when, where, and why, but seldom specifies how."<sup>11</sup> Additionally, the mission statement establishes the military end state, which is "a point in time and/or circumstances beyond which the President does not require the military instrument of national power as the primary means to achieve the remaining national objectives."<sup>12</sup> The military end state should link to the national strategic end state. A clear understanding of the end state is critical to the commander's planning guidance, which provides the commander's staff with a roadmap for planning. The commander's planning guidance should provide the joint planning group (JPG) with a clear understanding of the commander's vision; this understanding allows the JPG to better focus on solving the problem.

An important element of solving the problem is the staff's responsibility to develop facts and assumptions.<sup>13</sup> A fact is information known to be true, such as, locations of enemy forces



major lines of communication.<sup>14</sup> An assumption is information assumed true, for example, the adversary will use WMD against friendly forces. Planners must use facts and assumptions to effectively plan because the staff won't know everything about the enemy and must make an educated guess. Additionally, planners must focus on the operational limitations, constraints and restraints. Constraints dictate an action; for example, in 1944, the leaders ordered General Eisenhower to liberate Paris and not bypass it.<sup>15</sup> Conversely, restraints prohibit an action; for example, the leadership prohibited General McArthur from attacking Chinese targets north of the Yalu River during the Korean War.<sup>16</sup> The elements of constraints and restraints drive the planning process and are critical to developing a course of action (COA) that ensures mission success. An essential step in mission analysis is correctly identifying the centers of gravity (COG).

Joint doctrine defines a COG as the source of power that provides moral and physical strength, freedom of action, or the will to act.<sup>17</sup> Clausewitz first introduced the concept of the point of culmination and weight of effort, this later evolved into the "center of gravity."<sup>18</sup> Clausewitz described the COG as the "hub of all power and movement, on which everything depends...the point at which all energies should be directed."<sup>19</sup> Both definitions focus on attacking the enemy at the point that will adversely affect the ability to fight. The COG provides focus during the planning process and dates back to the early years of war.<sup>20</sup> Modern warfare continues to use the COG to focus planning. During Operation DESERT STORM, the planners identified Iraqi C2 as the operational COG. Planners used operational art to focus military tactics to cripple Iraq's combat capability by collapsing the C2 structure.<sup>21</sup> "Operational art is the application of creative imagination by commanders and their staffs-supported by their skill, knowledge, and experience-to design strategies, campaigns, and major operations and organizes

and employs military forces. Operational art integrates ends (purpose), ways (strategy) and means (resources) across all levels of war.<sup>22</sup> The commander and their staff focus on how to solve the problem; COA development is the step where the staff begins to brainstorm on how to meet the military objectives.

### **Step 3: COA Development**

The commander and his/her staff must envision the employment of the friendly forces and resources as a whole when developing COAs.<sup>23</sup> The COA must account for the facts and assumptions established during mission analysis, as well as, the operational limitations. The commander should make every attempt to avoid the enemy's strength and reduce friendly weaknesses.<sup>24</sup> A thorough understanding of the problem should promote effective ideas and several different approaches to solve the problem. The staff focuses on what type of military action is required; why that action is required, the overall purpose; who takes the action; when will the action begin; where the action will occur; and how the action will occur.<sup>25</sup> The staff should develop a minimum of two COAs to provide options to the commander. A valid COA must contain five elements, adequate, feasible, acceptable, distinguishable and complete. Adequate focuses on the ability of the COA to meet the commander's guidance.<sup>26</sup> A feasible COA can accomplish the mission within established time, space and resources available.<sup>27</sup> An acceptable COA balances risk and cost.<sup>28</sup> A distinguishable COA is sufficiently different from other courses of action.<sup>29</sup> Finally, a complete COA contains objectives, end state, resources, time estimates, concept for deployment and major forces required.<sup>30</sup> If a COA meets the aforementioned criteria, the staff moves to COA Analysis and Wargaming.

#### **Step 4: COA Analysis and Wargaming**

The Commander and his staff evaluate each potential COA against the governing factors to identify advantages and disadvantages for each COA; governing factors are the aspects of the operation that the commander considers the most important to the mission success. Wargaming affords the commander and the staff an opportunity to walk through a COA as it will play out against an enemy. Wargaming is the most effective method to analyze a COA. JP 5-0 recommends wargaming the adversary's most likely and most dangerous COA.<sup>31</sup> The overall intent of wargaming is to produce an improved COA.

#### **Step 5: COA Comparison**

The COA Comparison step evaluates all the COAs against the governing factors, not against each other. The intent is to identify strengths and weaknesses of each COA, to ensure selection of the COA with the highest probability of success.<sup>32</sup> The staff determines which COA best meets the governing factors that lead to mission success. The staff will determine the best COA and deliver the COA decision brief to the commander, who will decide the COA. The commander may amend the COA prior to approval.

#### **Step 6: COA Approval**

The Commander selects a COA or forms an alternate COA to submit for approval by higher authority.<sup>33</sup> The COA selected determines the commander's desired solution to the problem introduced during initiation and mission analysis.

#### **Step 7: Plan or Order Development**

The CONPLAN will flow to the CJCS and then the SECDEF for approval as an OPLAN during contingency planning. If this is crisis action planning (CAP), the CONPLAN will flow

through the CJCS to the SECDEF and the POTUS approves the OPORD. The only difference between the contingency planning and crisis action planning is time.

### **Defining the S/CRS Strategic Planning Process**

The four steps of the S/CRS Planning Process are Receipt of Problem, Situational Analysis, Theory of Resolution and Goal/End state, and Develop Concept of Operations; the S/CRS process is a strategic planning process that establishes the national strategic end state. Doctrine hasn't established this planning process. The source document for this information is the Planning Practitioner's Guide, a working version.

#### **Step 1: Receipt of the Problem**

The overall purpose of this step is that an entity receives, understands and verifies receipt of the overall problem.<sup>34</sup> The strategic planning team (SPT) provides the Principal Council Committee (PCC) with a list of available assets that are available to solve the problem; the POTUS or designated representatives receive this information.<sup>35</sup> Additionally, the SPT will identify entities with required assets and resources, which aren't under SPT authority.<sup>36</sup> The adjacent entities identify the level of integration required during step one. The receipt of the problem and identification of other entities moves the planning process to Situational Analysis.

#### **Step 2: Situational Analysis**

Situational analysis, also called problem analysis, ensures the entities involved share a common understanding of the problem.<sup>37</sup> All entities must have a shared understanding of the problem to effectively plan. Each agency brings a different skill set to solving the problem and may have a different perception of the current problem.<sup>38</sup> During this step, planners begin to gather information for identification of the problem. Planners record facts, develop assumptions

and hypotheses to begin the process of developing options for the strategic plan.<sup>39</sup> One of the greatest challenges is processing the vast amounts of information that may flow from international organizations, think tanks, and subject matter experts.<sup>40</sup> The information evaluated during situational analysis forms the Situation Analysis Paper; this paper details US strategic interests and potential risks. The Situation Analysis paper provides analysis of the current situation and the drivers for conflict and captures all the elements discussed during Situational analysis<sup>41</sup>

### **Step 3: Theory of Resolutions and Goal/End States**

The purpose of this step is to develop ideas to solve the problem defined during situational analysis. Planners suggest multiple goals and end states to the decision makers; these become the guiding narrative for further planning and action.<sup>42</sup> The main output for this step is a clear understanding of the overall goal and end state.<sup>43</sup> However, three documents are critical to establishing an end state. First, the Theory of Resolution Paper explains the changes the USG is seeking in the area; and provides a road map to achieve these changes.<sup>44</sup> Second, the Policy Advisory Memo for national decision makers, this memo highlights USG goals/end state and how the US will achieve the desired goal/end state.<sup>45</sup> Finally, the Policy Statement from national decision makers, this statement establishes USG policy goals/end state and mission elements necessary to accomplish future planning.<sup>46</sup> This step establishes the overall strategic end state for the US government.

### **Step 4: Develop Concept of Operations**

The Concept of Operations focuses on deployed assets to yield the effects that meet the desired goal/end state. The Theory of Resolution Paper serves as the core for the Concept of

Operations.<sup>47</sup> The Concept of Operations highlights what an entity must accomplish with the available resources, and the level of effort required to achieve the end state<sup>48</sup> Planners should identify and describe intermediate benchmarks and decision points.<sup>49</sup> Additionally, the planner identifies desired effects and walks backwards to determine the influences phenomena to each effect.<sup>50</sup> The planner should focus on the interrelated relationships that affect the phenomena; this allows the planner to write the story of change as an effect.<sup>51</sup> This story should meet the requirements of time, duration and sequencing of actions required to achieve the end state.<sup>52</sup>

The end state statements analyze transformational hypotheses that make an effect and develop an appropriate end state statement for the desired effect. The end state statement should focus on integrating the effects to form a complete framework.<sup>53</sup> Under each effect, there are sub-objectives that are necessary to achieve the desired result. The planners write a narrative story on how the whole of government will approach conflict transformation. This narrative should include a brief background, the nature of the environment, influencing phenomena, and how the US government will produce the desired effects.<sup>54</sup> This narrative along with the end state statements and sub-objectives provide the information to outline and communicate the Strategic Plan.<sup>55</sup> The higher authority reviews the Strategic Plan and the planners receive feedback; upon reexamination of the policy guidance, the S/CRS implements the Strategic Plan.<sup>56</sup>

**Ends, Means, and Ways**

	<b>JOPP (DoD)</b>	<b>Planning Framework (S/CRS)</b>
<b>ENDS</b>	Step 1: Initiation  1. Strategic Guidance 2. End State 3. National Strategic End State	Step 3: Theory of Resolution and Goal/ End State  1. Theory of Resolution Papers 2. Policy Advisory Memo 3. Policy Statement
<b>MEANS</b>	Step 2: Mission Analysis  1. Conduct initial force structure analysis 2. Develop Assumptions/Facts 3. Conduct Risk Assessment 4. Request for Forces 5. Apportioned Forces 6. Identify Friend/Enemy COGs 7. Commanders' Critical Information Requests	Step 1&2: Receipt of Problem/Situational Analysis  1. Develop Facts/Assumptions/Hypotheses 2. Gather existing information 3. Analyze Conflict 4. Conduct Security/Sectoral Assessments 5. Information Request
<b>WAYS</b>	Step 3&4: COA Dev/Analysis/Wargame  1. What type of action 2. Who will take the action 3. When action begins 4. Where action occurs 5. Why is the action required 6. How the action will occur	Step 4: Concept of Operation  1. What type of action 2. Who will take the action 3. When action begins 4. Where action occurs 5. Why is the action required 6. How the action will occur

**Figure 2.**  
**(Created by researcher)**

The JOPP and the S/CRS planning process are functionally the same; both processes support Dr. Jack Kem's approach to campaign planning focuses on the ends (purpose), ways (strategy) and means (resources).<sup>57</sup> However, the S/CRS planning process doesn't first look at ends, then means and, finally, ways. The S/CRS planning process focuses first on the means to determine available resources for solving the problem. During Step 1, Receipt of the Problem, the SPT identifies required assets and available resources to ensure that information is effectively flowing to diagnose the problem. When the entities understand the problem, S/CRS focuses on

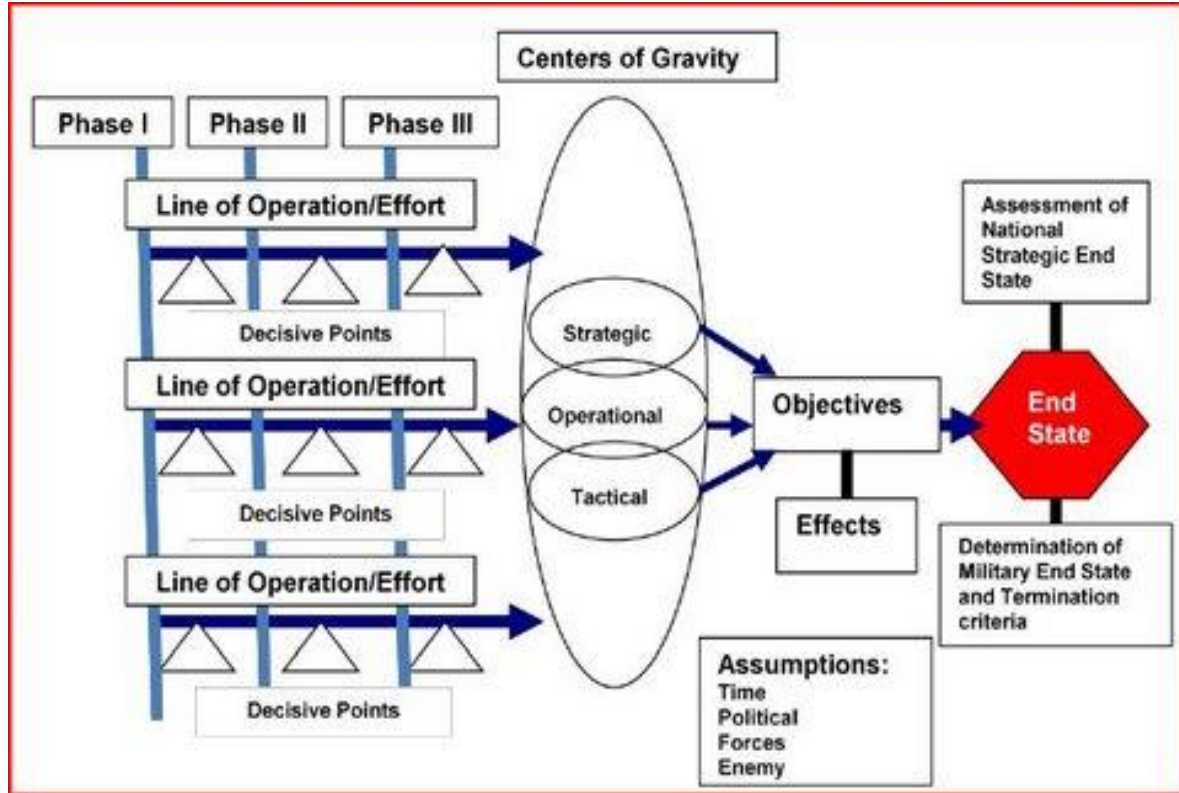
the ends. During this step, national decision makers establish the end state; this sets the stage for establishing the strategy for meeting the desired end state. The challenge for the department is the lack of a direct link or a feedback mechanism to assess the role of the military in the fight. The planning process should link the DOD and the DOS following the determination of the national strategic end state. The S/CRS planning process goes full circle before DOD and DOS coordination. This high-level coordination will enhance the Concept of Operations; which establishes the actions required to achieve the end state and finalized in the Strategic Plan.

Figure 3 displays a comparison between the DOD joint operational planning process and the S/CRS planning process. The figure illustrates what each step provides in relation to the ends, means and ways. The S/CRS planning process provides strategic objectives and national end state to the political masters. The national decision makers approve the national strategic objectives and national strategic end state; these elements define military objectives and military end state, which serve as the foundation for the JOPP. Essentially, the two processes are integrated but there isn't a current process to bridge the gap between the DOD and the DOS planning processes. One affective method that can streamline the planning process for the two departments is the Cognitive Map.

### **Defining the Cognitive Map**

The cognitive map is a DOD tool that allows Joint Force Commanders (JFC) and their staff to visualize an operation from the beginning to the end, while applying operational art and operational design to synthesize the critical linkages between IOPs. The cognitive map can provide a whole-of-government planning template, bridging the elements of national strategic end state, objectives, effects, centers of gravity (COGs), decisive points and lines of operation.





**Figure 3.**<sup>58</sup>  
The Cognitive Map

The cognitive map provides a standardized planning format for both the DOD and the DOS. The end state establishes the point of origin for conducting campaign planning in Figure 3 and moves from the right to the left, culminating with the decisive points. First commanders ensure they have a clear understanding of the overall end state, and focus planning elements on the end state. Successfully linking the planning process to the end state, ensures overall mission success. The national strategic end state is one of the most critical elements to the cognitive map; it describes the President’s political, economic, military and informational vision at the conclusion of the operation or campaign.<sup>59</sup> If the end state isn’t clear or is misunderstood, the planning process will ultimately fail. Another important element to the cognitive map is

termination criteria. The President and Secretary of Defense are responsible for determining the termination criteria; this criterion is a preset of conditions that must exist prior to concluding a joint operation.<sup>60</sup> The termination criteria establish the foundation for the military end state, which is the final element that supports the end state. The military end state is reached when the military instrument of power is no longer the primary instrument of power for achieving national objectives.<sup>61</sup> Clearly defining the end state is critical to the overall planning process. Throughout the campaign planning process, commanders and their staffs can't lose sight of the end state.

Planners understand the end state and define assumptions to further the planning process. The planning staff won't have all the answers to specific planning questions; the assumptions fill gaps in knowledge and must be critical for the planning process to continue.<sup>62</sup> The staff must ensure that assumptions are logical, realistic and again, essential to the planning process. Additionally, commanders should anticipate changes to the plan if an assumption is prove incorrect.<sup>63</sup> Planners can't take planning lightly; failure diagnose assumptions can lead to failure of the planning process. Currently doctrine doesn't prescribe a specific category of assumptions; however, the cognitive map focuses on four categories: time, political, forces and enemy. This is not an all-inclusive list but a few examples of assumptions for each category. Time focuses on the ability of a force to prepare, deploy and generate forces for operations.<sup>64</sup> Political addresses areas like host nation support, basing rights and over flight routes.<sup>65</sup> Forces highlight the availability of friendly forces. Enemy assumptions may include whether the adversary will use weapons of mass destruction. If commanders and/or their staff fail to make accurate assumptions, it will negatively affect determining objectives.

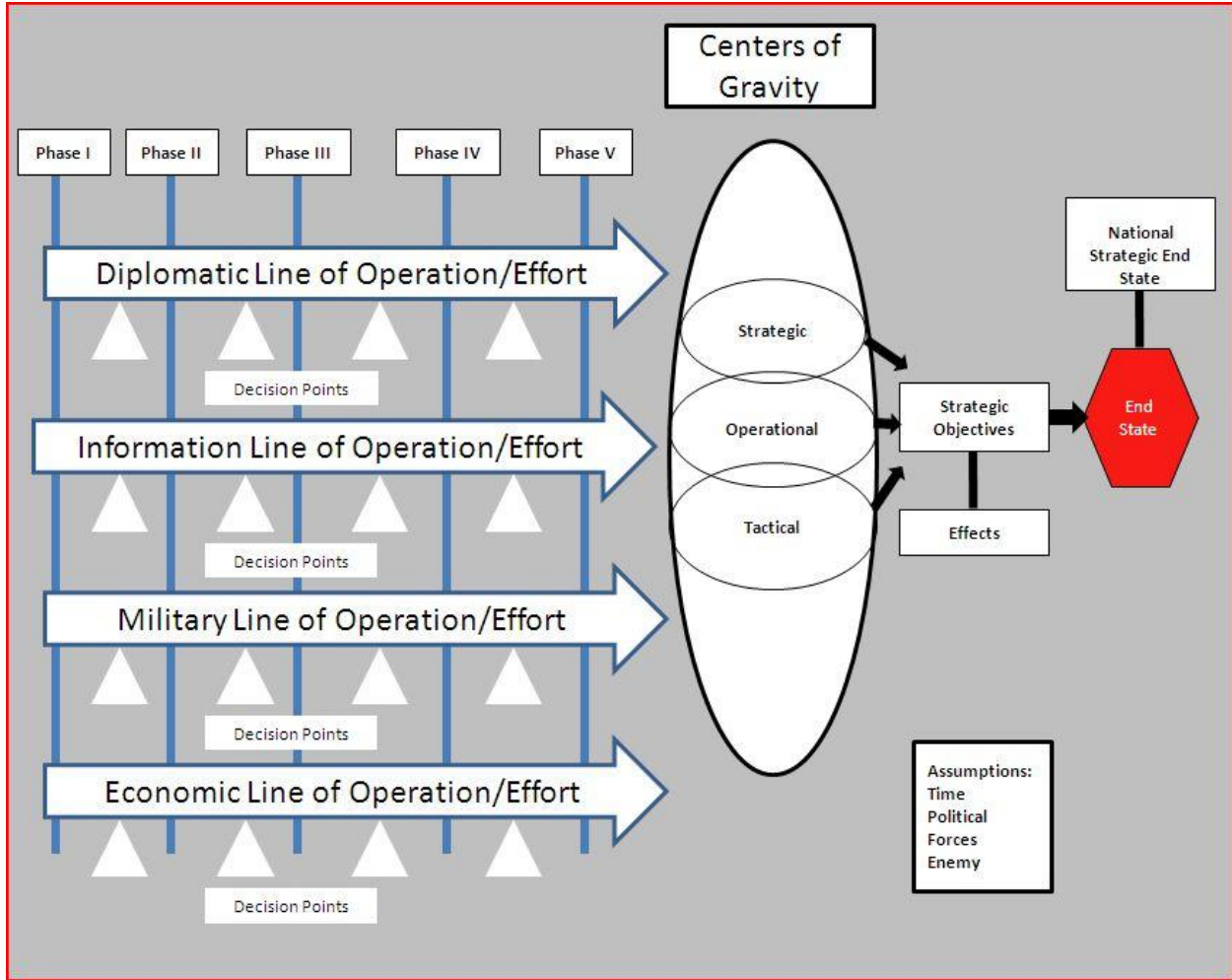
The military objectives and effects are building blocks toward the end state. “An objective is a clearly defined, decisive, and attainable goal which every military operation should be directed.”<sup>66</sup> Planners must ensure that operational objectives link directly or indirectly to one or more higher-level objectives and should be unambiguous. Objectives provide a clear road map for planning military operations that leads to the desired end state. The objectives serve as a road map or in the technology age, a portable global positioning system (GPS). The end state represents your final destination. You must first know your final destination before you can begin to navigate. If you navigate without knowing your end state, you are simply joy riding without any sense of direction. Once you know your final destination, you are ready to navigate. The GPS route represents your objective; it leads to the final destination, the end state. Additionally, an effect allows commanders to establish conditions for achieving objectives.<sup>67</sup> An effect is a physical or behavioral state of a system because of an action, actions or an effect.<sup>68</sup> Effects serve as indicators to predict success or failure of an objective. The two categories of effects are desired effects and undesired effects. Desired effects promote achieving objectives while undesired effects inhibit achievement of objectives that exist at all three levels of war, strategic, operational, and tactical. Planners must focus on applying operational art; each effect should positively affect the objective that leads to the end state. A clear understanding of the objectives is vital to determining the centers of gravity.

Centers of gravity are physical and moral entities that are a source of strength; Dr Kem describes the COGs as the strength.<sup>69</sup> The challenge for commanders and planners is to identify the centers of gravity. Incorrectly identifying the enemy’s COG can easily cripple the planning process; planners must accurately assess enemy vulnerabilities. A method that allows a systematic approach to identifying potential centers of gravity is to conduct critical factors

analysis. Analysis dissects the centers of gravity into workable parts. Critical factor analysis must be accomplished in a specific order, first, critical capabilities, then critical requirements and finally, critical vulnerabilities. Critical capabilities define what the enemy can employ and described in verb form; for example, a critical capability of the enemy is to employ WMD.<sup>70</sup> In short, what capability does a potential COG provide which causes the greatest fear for friendly forces. The next element is critical requirements, which provide the conditions, resources and means to enable a critical capability.<sup>71</sup> For example, if the adversary has the capability to employ WMD, the enemy must have weapons storage and weapons delivery vehicles; these elements represent the means that enables the employment of WMD. The final portion is critical vulnerabilities; this evaluates the critical requirements to determine the resources or equipment that are vulnerable to attack. The critical vulnerabilities become decisive points. Decisive point is a geographic place, or specific event that when acted upon allows commanders to gain a marked advantage over the adversary.<sup>72</sup> An example of a decisive point is the adversary's main WMD storage facility. The decisive points are linked together to form lines of operation (LOO) to attack the enemy's centers of gravity.<sup>73</sup> The LOO will focus similar events into specific phases of the campaign. For example, if friendly forces were attempting to destroy the adversary's WMD capability, all decisive points related to the destruction of WMD would form along a single LOO. The LOO allows commanders and planners to visualize the campaign via the cognitive map and define the phases of the campaign. A phase is a definitive stage of an operation when the majority of the forces and capabilities are involved in similar activities focusing on a common goal.<sup>74</sup> The cognitive map is a proven military planning tool, which could effectively integrate the instruments of power, ensuring a collective focus on the national strategic end state.

**Recommendation/Conclusion**

The Cognitive Map provides a planning model for the DOS to integrate and synchronize the national instruments of power across all phases of an interagency campaign. The cognitive map will serve as a strategic roadmap for the DOD and DOS; it will establish the guidance ensuring that all entities focus on the national strategic end state during the decentralized planning process. The DOD and DOS can effectively facilitate communication and dialogue while strengthening unified action. The strategic cognitive map represents the synchronization and/or integration of military operations with governmental, non-governmental organizations. The close coordination of governmental organizations is a reality for the complex threat environment the United States faces all over the world.



**Figure 4.<sup>75</sup>**  
**Strategic Cognitive Map**

The Strategic Cognitive Map replaces the lines of operation with the national instruments of power. The rest of the cognitive map remains the same but the overall planning process won't change. The DOS will produce and disseminate the strategic Cognitive Map following Step 3 of the S/CRS planning process, Theory of Resolution and Goal/End State. The planning process begins with a President's approval of the recommended end state. All departments must ensure they clearly understand the strategic end state, and more importantly, what role they will play in

achieving the national strategic end state. The President, SECDEF and SECSTATE should define the strategic objectives. This will ensure the coordination necessary to synchronize the national instruments of power. An interagency planning group should complete the remainder of the planning. This group should consist of planners from the DOS, DOD, NGOs, and IGOs. Any particular agency that may play a role in the campaign should be included in the planning group.

The interagency planning group should brainstorm to identify the strategic center of gravity. In Operational Design, *Shaping Decision Analysis through Cognitive Vision*, Dr. Reilly remarks,

The strategic level of war establishes national or multinational strategic security objectives and guidance, and develops and uses national resources to achieve these objectives. Activities at this level include establishing national and multinational military objectives; sequencing initiatives; defining limits and assessing the risks for the use of military and other instruments of national power; and providing military forces and other capabilities in accordance with strategic plans.<sup>76</sup>

The planning process will consider all the elements mentioned above to identify the critical strategic center of gravity. The interagency planning group will disband and return to its organizations to continue the planning process. Each entity will use the strategic cognitive map to develop a cognitive map that is specific to its organization. For example, the joint force commander responsible for planning a campaign to support the strategic objectives will convene his/her staff. The planning staff will build a cognitive map that links directly to the strategic cognitive map established during interagency planning. Planners will focus on identifying the operational COG and developing a critical factor analysis model to determine the decisive points. The decisive points identified will form the line of operation for each instrument of power. Each instrument of power must coordinate the decisive points to synchronize and integrate operations.

Additionally, all participants can easily view the decisive points that affect other departments or agencies. The cognitive map serves as a freeze frame, which planners can analyze repeatedly throughout the planning process. The strategic cognitive map provides agencies with more flexibility; additionally, the strategic cognitive map promotes long-term planning and allows planners to conduct 360-degree analysis of potential problems.

If all the entities use the cognitive map, it will provide oversight and foster communication, which improves the planning process between the DOS and the DOD. The cognitive map will ultimately lead to a single planning process for all government agencies. The implementation of a single planning process is necessary to prevent the ongoing inefficiencies throughout the planning process. However, the law doesn't exist to force the DOD and the DOS to amend the planning process. The current fix would require a reorganization of the State Department and the Defense Department similar to the Goldwater-Nichols Act of 1986. The Goldwater-Nichols Act established the requirement for the service components to develop doctrine for the joint employment of the armed forces, formulating policies for the joint training of the armed forces, and formulating policies for coordinating the military education and training of members of the armed forces.<sup>77</sup> Currently, US law doesn't require the DOD and DOS to streamline the planning process to facilitate success across all phases of an operation. The cognitive map does provide the foundation necessary to effectively plan at all levels of war for both departments.



## End Notes

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- <sup>1</sup> Department of Defense (DOD) Joint Publication 5-0, Joint Operation Planning, 26 December 2006.
  - <sup>2</sup> Department of Defense (DOD) Joint Publication 1, *Doctrine for the Armed Forces of the United States*, 14 May 2007, I-18 xxii.
  - <sup>3</sup> Bob Woodward, *Plan of Attack*, New York, NY, 2004, 3.
  - <sup>4</sup> Joint Publication 5-0, I-4
  - <sup>5</sup> *Ibid.*, III-19
  - <sup>6</sup> *Ibid.*, III-20
  - <sup>7</sup> *Ibid.*, III-19
  - <sup>8</sup> *Ibid.*, III-5.
  - <sup>9</sup> *Ibid.*
  - <sup>10</sup> *Ibid.*, III-23.
  - <sup>11</sup> *Ibid.*
  - <sup>12</sup> *Ibid.*, III-8.
  - <sup>13</sup> *Ibid.*, III-26.
  - <sup>14</sup> *Ibid.*
  - <sup>15</sup> *Ibid.*
  - <sup>16</sup> *Ibid.*
  - <sup>17</sup> *Ibid.*, GL-6.
  - <sup>18</sup> Milan Vego, *Joint Operational Warfare: Theory and Practice*, I-15.
  - <sup>19</sup> Jack D. Kem, *Campaign Planning: Tools of the Trade*, Third Edition, Fort Leavenworth, Kansas, 25.
  - <sup>20</sup> Jeffrey M. Reilly, *Operational Design Shaping Decision Analysis through Cognitive Vision*, Second Edition Air Command and Staff College, November 2009, 22.
  - <sup>21</sup> *Ibid.*, 27.
  - <sup>22</sup> Joint Publication 5-0, GL-18.
  - <sup>23</sup> *Ibid.*, IX-47.
  - <sup>24</sup> *Ibid.*
  - <sup>25</sup> Joint Publication 5-0, III-28
  - <sup>26</sup> *Ibid.*
  - <sup>27</sup> *Ibid.*
  - <sup>28</sup> *Ibid.*
  - <sup>29</sup> *Ibid.*
  - <sup>30</sup> *Ibid.*
  - <sup>31</sup> *Ibid.*, III-31
  - <sup>32</sup> *Ibid.*, III-32
  - <sup>33</sup> *Ibid.*, III-34
  - <sup>34</sup> United States Government Draft Planning Framework Planning Practitioner's Guide (Working Version), January 2009, 2.
  - <sup>35</sup> *Ibid.*
  - <sup>36</sup> *Ibid.*
  - <sup>37</sup> *Ibid.*, 4
  - <sup>38</sup> *Ibid.*
  - <sup>39</sup> *Ibid.*
  - <sup>40</sup> *Ibid.*
  - <sup>41</sup> *Ibid.*
  - <sup>42</sup> *Ibid.*, 11.
  - <sup>43</sup> *Ibid.*, 12
  - <sup>44</sup> *Ibid.*
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  - <sup>46</sup> *Ibid.*
  - <sup>47</sup> *Ibid.*, 20.
  - <sup>48</sup> *Ibid.*
  - <sup>49</sup> *Ibid.*, 21

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- <sup>51</sup> Ibid.
- <sup>52</sup> Ibid., .
- <sup>53</sup> Ibid.
- <sup>54</sup> Ibid., 23.
- <sup>55</sup> Ibid.
- <sup>56</sup> Ibid.
- <sup>57</sup> Kem, Campaign Planning Tools, 23
- <sup>58</sup> Reilly, Operational Design, 14.
- <sup>59</sup> Ibid., 15.
- <sup>60</sup> Joint Publication 5-0, GL-24.
- <sup>61</sup> Joint Publication 5-0, III-8
- <sup>62</sup> Ibid., III-26
- <sup>63</sup> Ibid.
- <sup>64</sup> Reilly, Operational Design, 40
- <sup>65</sup> Ibid., 41.
- <sup>66</sup> Joint Publication 5-0, III-11
- <sup>67</sup> Ibid., III-12
- <sup>68</sup> Reilly, Operational Design, 20.
- <sup>69</sup> Kem, Campaign Planning, 72
- <sup>70</sup> Ibid.
- <sup>71</sup> Reilly, Operational Design, 26.
- <sup>72</sup> Joint Publication 5-0, IV-16.
- <sup>73</sup> Reilly, Operational Design, 30
- <sup>74</sup> Joint Publication 5-0, GL-20.
- <sup>75</sup> Reilly, Operational Design, 14.
- <sup>76</sup> Reilly, Operational Design, 24.
- <sup>77</sup> Goldwater-Nichols Act of 1986, [http://www.au.af.mil/au/awc/awcgate/congress/title\\_10.htm](http://www.au.af.mil/au/awc/awcgate/congress/title_10.htm)

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