

## Depth and the Operationalization of Army Campaign Quality

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### Abstract

This research explores campaign quality and its utility in describing Army forces. This paper will clearly define campaign quality and its linkage to depth. Campaign quality consists of mental characteristics, made up of mental skills and resilience, and physical qualities, made up of unit endurance and physical capabilities. Planning and executing operations in depth is how the Army operationalizes campaign-quality forces. This research first discusses depth as a tenet of unified land operations and its linkages to campaign quality, followed by a discussion of how Army units plan for and execute operations in depth. This paper further describes how depth allows leaders to assess the Army's overall campaign quality. Finally, this paper proposes a refined definition of depth more consistent with historical definitions, joint doctrine, and actual intended usage. Three conclusions emerge from this discussion. First, the current definition of depth in Army doctrine needs to be revised in line with earlier versions. Second, campaign quality linked to an expanded definition of depth can support more precise readiness reporting. Third, assessing campaign quality linked to depth helps answer whether the Army is prepared to conduct major combat operations.

## **Depth and the Operationalization of Army Campaign Quality**

Since 2003 the Army has identified campaign quality as a fundamental characteristic of Army units. Throughout the 2000s the phrase appeared in doctrine, posture statements, articles, and other official documents. The 2003 Army Posture Statement contained the first formal usage of the term campaign quality.<sup>1</sup> The Army used it again in the 2004 and 2005 Army Posture Statements, and then added the phrase “A Campaign Quality Army with Joint and Expeditionary Capabilities” as the subtitle of the Army Posture Statements for 2006, 2007, and 2008.<sup>2</sup> Secretary of the Army W. Les Brownlee and Chief of Staff of the Army General Peter J. Schoomaker elaborated on the term in 2004, stating that campaign quality was “not only its [the Army’s] ability to win decisive combat operations, but also its ability to sustain those operations for as long as necessary.”<sup>3</sup> The 2011 release of Army Doctrinal Reference Publication (ADRP) 3-0 formally defined the term as follows: “Campaign quality is the Army’s ability to sustain operations as long as necessary to achieve success. Campaign quality is an ability to conduct sustaining operations for as long as necessary, adapting to unpredictable and often profound changes in an operational environment as the campaign unfolds.”<sup>4</sup>

Current doctrine retains the term, adding the assertion that campaign quality is what makes Army forces “foundational and essential to the joint force to conduct campaigns.”<sup>5</sup> Given the historical record of extended campaigns as the norm, campaign quality seems an important and desirable characteristic of Army forces. Throughout all usage of the term, the Army has stated that this is a fundamental quality of Army forces as opposed to something that must be actively achieved and maintained.

The current definition presents multiple problems, namely that the term appears to be divorced from doctrine, training, and force design. The concept does not clearly link with the Army's operational concept, nor does it describe how Army forces achieve the conditions described in the definition. Despite the name, the concept is not visibly linked to the doctrinal concept of campaigns except in the context of sustaining operations, defined as those operations that enable either the decisive operation or shaping operations by generating and maintaining combat power.<sup>6</sup> Additionally, the idea that Army forces retain a fundamental campaign quality is under attack. During confirmation hearings for Secretary of the Army Eric K. Fanning in 2016, Senator John S. McCain publicly expressed his doubts about the Army's ability to field campaign quality forces.<sup>7</sup> The current Chief of Staff of the Army, General Mark A. Milley, has also expressed concerns that 16 years of missions in Iraq and Afghanistan have degraded the Army's ability to win the brutal and extended campaigns of a major war.<sup>8</sup>

In short, a more detailed discussion of campaign quality is required in order to make the term meaningful and provide utility. Because the term itself lacks precision, much of the debate could simply be a matter of definition, in which case a simple solution could be to provide a more detailed explanation and then describe how it links to the fundamental concepts of Army doctrine. This paper will fill this gap by first clearly defining campaign quality and then linking it to the tenets of unified land operations.

This paper proposes that planning and executing operations in depth is how the Army provides campaign quality forces to the joint force. Campaign quality itself consists of mental characteristics, made up of mental skills and toughness (also called resilience), and physical qualities, made up of unit endurance and physical capabilities.

Figure 1 provides a logic chart for this expanded definition of campaign quality. This paper makes the case by first discussing depth as a tenet of unified land operations and its linkages to the concept of campaign quality, followed by a discussion of how Army units plan for and execute operations in depth. This paper further describes how the updated definition of depth allows leaders to assess the Army’s overall campaign quality. Finally, this paper proposes a refined definition of depth, rooted in earlier Army doctrine that is more consistent with historical definitions, joint doctrine, and actual intended usage.

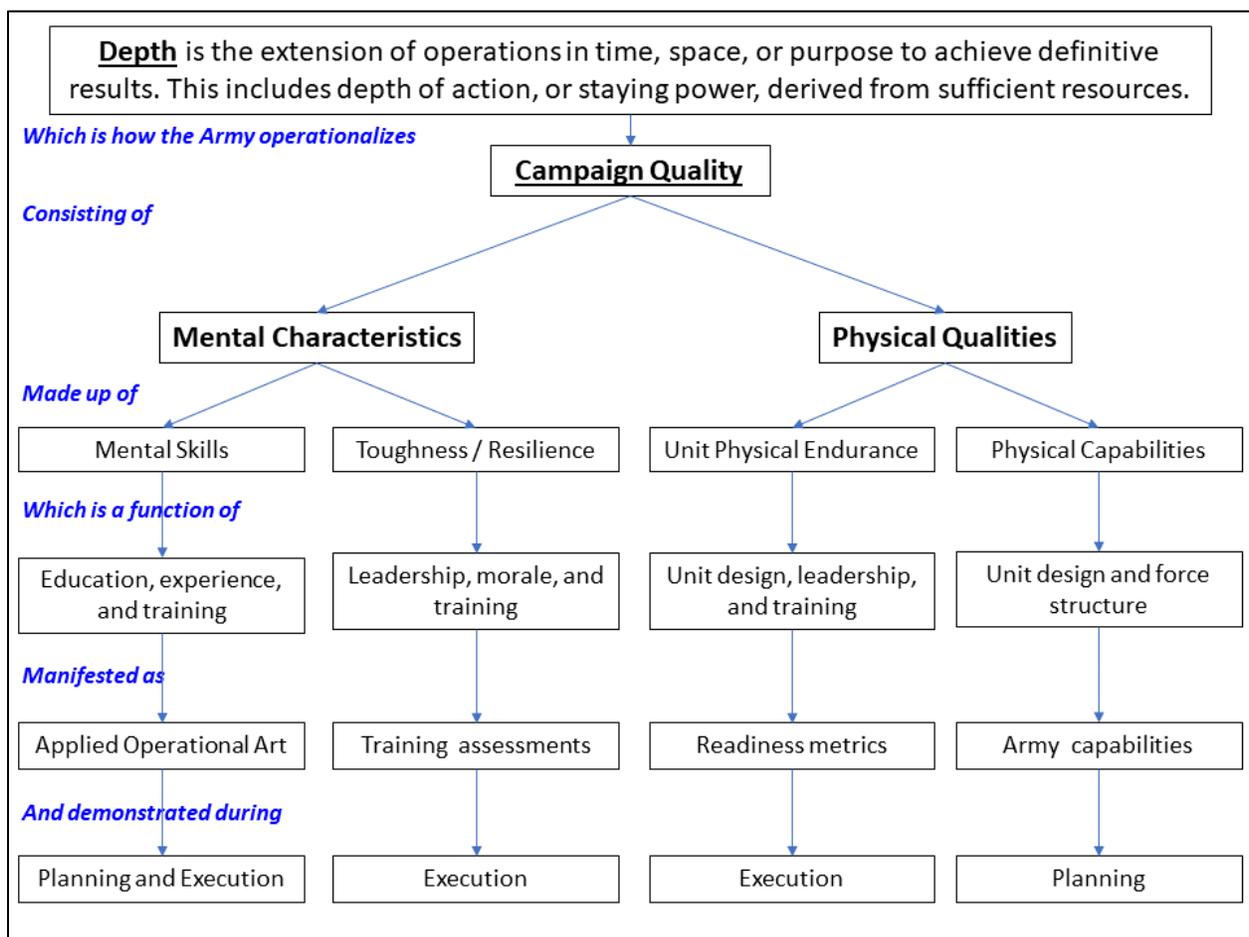


Figure 1. Depth and Campaign Quality Logic Chart

## Depth and What It Means

The concept of depth in its current form is largely focused on how friendly forces act upon the enemy. Army doctrine defines depth as “the extension of operations in time, space, or purpose to achieve definitive results.”<sup>9</sup> A typical use of the term describes how friendly forces attack throughout the entirety of an enemy formation (that is, in its depth), stretching from those forces in direct contact all the way to enemy tactical and operational consolidation areas. By attacking in depth, friendly forces create numerous challenges for enemy commanders and shape the battlefield favorably for future friendly operations. The unstated but obvious corollary is that enemy forces simultaneously seek to attack friendly forces in depth. This means depth extends throughout the entirety of the friendly and enemy area of operations. A useful historical example is the famous “left hook” during Operation Desert Storm when one corps fixed Iraqi units in Kuwait while two corps penetrated into Iraq and attacked the exposed flanks of the main Iraqi force, supported by air power striking the retreating army.<sup>10</sup> In this case the Coalition forces attacked in depth against Iraqi forces. The Coalition’s own depth extended from the front lines (and arguably to aircraft attacking targets further in Iraq) all the way to support bases in Saudi Arabia.

Joint doctrine includes the concept of depth as a component of arranging operations, one of the elements of operational design.<sup>11</sup> The joint definition is similar to the Army definition, in that it “seeks to overwhelm the enemy throughout the [operational area], creating competing and simultaneous demands on enemy commanders and resources and contributing to the enemy’s speedy defeat” and applies to both geography and time.<sup>12</sup> Joint sustainment doctrine (JP 4-0) also explicitly links sustainment to depth in that “effective sustainment determines the depth to which the

joint force can conduct decisive operations,” although this is not included in either capstone joint doctrine or joint operations doctrine (Joint Publications 1 and 3-0, respectively).<sup>13</sup> Army doctrine makes nearly identical assertions by stating that the depth and duration of Army operations are determined by sustainment.<sup>14</sup>

Earlier editions of the Army’s capstone operations doctrine explicitly linked depth and endurance to the function of sustainment. In the 2001 version of Field Manual 3-0, *Operations*, the definition of depth included an expanded discussion of friendly capabilities and staying power, or “depth of action,” which is derived from adequate resources and that “depth of resources in quantity, positioning, and mobility is critical to executing military operations.”<sup>15</sup> Using this expanded definition, depth enables offensive momentum, defensive elasticity, and staying power.<sup>16</sup> Similar to current Army logistics doctrine, the 2001 version of FM 3-0 states that sustaining operations establish both staying power and the depth of operations, and that sustainment itself determines operational reach.<sup>17</sup> Finally, this earlier definition of depth states that the provision of combat service support frequently determines how deep units can exploit success.<sup>18</sup>

When applying this definition to the Gulf War example, the robust sustainment force that brought supplies from ports and depots deep within Saudi Arabia into Kuwait and Iraq behind the attacking armored formations determined Coalition depth. Had the attackers lacked the staying power (or depth of action) provided by these capabilities, the plan as executed would have proved infeasible. This points to the need to expand the current definition of depth to include discussions from earlier versions in light of the linkages to sustainment and the notion of staying power. This also accounts for the fact that enemy forces simultaneously seek to effect friendly forces in depth.

An expanded definition of depth that includes staying power as described in the 2001 doctrine also provides a doctrinal basis for the notion of campaign quality. Army doctrine already describes campaign quality in terms of endurance, stating that endurance is the quality which gives Army forces their campaign quality and “contributes to Army forces’ ability to make permanent the transitory effects of other capabilities.”<sup>19</sup> Army doctrine further defines endurance as the ability to employ combat power for protracted periods across the globe, stemming from the ability to generate and then sustain forces regardless of distance from a base and operational austerity.<sup>20</sup> Using this framework, depth describes *how* the Army operationalizes campaign quality.

A concept of depth that includes staying power and endurance applies across the range of military operations, including conventional operations like Operation Desert Storm, peacekeeping operations like Bosnia, and counterinsurgency operations like Iraq following the 2003 invasion. Although peacekeeping and counterinsurgency operations lack the rapid and dynamic changes in operating areas that characterizes conventional operations, these operations tend to take place over extended periods of time, usually years. Depth, or staying power, in these operations is an expression of the available capabilities and the sustainability of rotational deployments. Commanders in these operations must also account for the fact that their adversaries operate throughout the depth of the friendly operating area and also possess depth in time.

Depth becomes more critical during conventional operations over extended distances. This is in large part due to logistics consumption and the expanding nature of the battlefield during attacks as forces move forward and supply lines become both stretched and more critical to sustain the attack. In these instances, friendly depth is

expanding at the same rate enemy depth contracts, a characteristic rarely shared in peacekeeping or counterinsurgency operations, at least in the geographic sense. A force not built for depth would quickly expend available resources (ammunition, water, food, repair parts, etc.) or lack the physical ability to maintain the desired attack tempo. A force that lacks depth in this expanded definition will certainly find itself at a marked disadvantage when facing a force that retains sufficient depth.

### Planning for Depth

Commanders and their staffs must understand both the friendly and enemy dimensions of depth in order to achieve success. Although not explicitly discussed, this idea of depth permeates doctrine and is easily observable in many historical campaigns. From a doctrinal perspective, the concept of depth is closely related to several elements of operational art (or the elements of operational design in Joint doctrine). The first and foremost of these is operational reach, an expression of how far and for how long a force can successfully employ its full range of capabilities.<sup>21</sup> During offensive operations a force can only project combat power into the depth of the enemy to the extent allowed by operational reach, which serves as a tether to the base of operations along lines of communication that facilitate the operation. Operational reach is also described as the balance a commander achieves between the tensions of endurance, momentum, and protection.<sup>22</sup> Joint capabilities integrated with Army forces allow a joint force commander to extend operational reach, particularly with air power, but this does not change the depth of the ground forces. The second related element of operational art and joint operational design is culmination, which is the point where a force can no longer continue with its current form of operation (offense, defense, or stability), typically due to the effects of combat operations or available resources.<sup>23</sup> Whereas operational reach is

usually focused on projecting effects throughout the depth of an enemy force, culmination is a measure of the depth of friendly forces. Both operational reach and culmination shape the tempo of operations, the third relevant element of operational art. Tempo is the pace of a combat operation over time in relation to the enemy, preferably at a rate higher than that of the enemy in most cases.<sup>24</sup> However, commanders can only maintain a tempo relative to their own depth of resources or means, and if they exceed this limit they risk early culmination that forces them to transition to a defensive posture or operational pause.<sup>25</sup> Tempo is not included in the Joint elements of operational design. The fourth and final element of operational art relating to depth is phasing and transitions, which serves as an organizing framework by dividing an operation into discrete elements and then establishing the conditions when missions change.<sup>26</sup> Joint doctrine describes phasing and transitions as a subset of arranging operations. Planned phases and transitions are inherently informed by depth against the enemy and friendly depth of resources. Transitions can mark a change in sustainment priorities and are frequently used to allow these capabilities to catch up with attacking forces.

The expanded definition of depth is also related to several of the Army's warfighting functions and Joint functions, which are logical groupings of tasks, functions, and units that provide a conceptual organization for physical capabilities and operations.<sup>27</sup> These functions also provide useful descriptions of the physical means and activities required to achieve or deny depth. Sustainment is the function most closely linked with friendly depth since it largely defines operational reach and endurance.<sup>28</sup> The protection function supports depth by preserving the available combat power, thereby extending operational reach and staving off culmination.<sup>29</sup> Many

protection activities seek to deny an enemy's ability to effect friendly forces in depth, such as antiterrorism operations and chemical protection.<sup>30</sup> Conversely, fires as a warfighting function (specifically offensive fires) seeks to project lethal and non-lethal effects throughout the depth of an opponent.<sup>31</sup> Fires are also frequently used against the means and capabilities that defines an enemy's depth of resources, although this leads to the cumbersome statement of attacking an opponent's depth in depth. Finally, the movement and maneuver function serves as the bridge between the friendly and enemy dimensions of depth. Commanders typically employ fires throughout the depth of the enemy in support of maneuver forces, who are, in turn, limited by the depth of means available to continue operations.

#### Planning Case Study: Normandy Campaign

A historical example can clarify the doctrinal relationships described above. Like many campaigns of World War II, the Normandy campaign is an excellent case study in planning for depth during combat operations. Although popular culture almost exclusively associates the Normandy Invasion with the heroic fighting on D-Day, it was an extended campaign which the U.S. Army officially considers to encompass the period of June 6 to July 24, 1944, after which operations shifted to breaking out of the beachhead and attacking east.<sup>32</sup> The combatants were keenly aware this was merely the beginning of a greater campaign to liberate Europe and not the end, a sentiment echoed in General Dwight D. Eisenhower's message to the Allied forces on the eve of invasion when he wrote about the "Great Crusade about to begin."<sup>33</sup> Although the Allied invasion proceeded more slowly than planned, few commanders had any illusion the upcoming campaign would be executed in a single decisive battle.

The Allied planners knew they had to attack the Germans in depth in order to have any chance of success. Because the German army maintained interior lines, they had the flexibility to rapidly shift forces from other sectors to repel the invaders. The Allies dealt with this problem through several means, all of which focused on the German army throughout the depth of their formations. The plan was extraordinarily complicated and required a great degree of synchronization to achieve its objectives. During the invasion, airborne forces would parachute behind the coastal defense positions to seize key objectives and prevent reinforcements. Naval gunfire and tactical air interdiction simultaneously supported the beach landings. In the months preceding the invasion Allied air forces focused on destroying Germany's capacity to generate fighter sorties while disrupting German lines of communication, including rail infrastructure and roads leading into the region.<sup>34</sup> Most ingeniously of all, the Allies convinced German leaders the Normandy landing force was not the main effort and that a more dangerous attack was still imminent. The Allied deception plan included an imaginary army based in Scotland preparing to invade Norway and General George S. Patton's 1st US Army Group (the general most feared by the Germans) with 11 divisions preparing to invade France east of the Normandy region as the decisive operation.<sup>35</sup> This non-kinetic method of disrupting the German army in depth would prove extraordinarily helpful to the Allies as the campaign unfolded.

One of the more significant disputes before the invasion related to the depth of Allied efforts against Germany. In the weeks leading up to the invasion, General Carl A. Spaatz and Air Marshall Arthur T. Harris advocated for a deeper approach by focusing bombers on the German oil and rubber industries, which were acutely vulnerable for the

first time after the near-destruction of the *Luftwaffe*, and thereby strangle the entire Nazi war effort.<sup>36</sup> This plan would shift efforts away from disrupting the German's ability to introduce reinforcements to the sector, which naturally drew sharp opposition from ground force commanders and even Air Marshal Arthur W. Tedder, Eisenhower's deputy supreme commander, who believed it was another version of panacea bombing and would not immediately impact Germany's ability to project their depth of forces against the Allies.<sup>37</sup> Eisenhower rejected the "oil campaign" based on his belief that disrupting reinforcements was the only way to use the air forces in a way that denied Germany's ability to defeat the invasion.<sup>38</sup>

The Allied planners were equally focused on their own depth, understanding that the entire object of the operation was not to destroy the German army but to secure a foothold in France that would serve as the starting point for extending their operational reach for the subsequent liberation of Europe.<sup>39</sup> This understanding framed planning for the entire operation, beginning with need to choose assault beaches capable of supporting sustainment throughput and maintenance operations before they could seize permanent ports.<sup>40</sup> Depth of resources was always a major planning concern in order to prevent culmination, with an early focus on having sufficient landing craft, which the United States began building in 1942.<sup>41</sup> In a July 1943 paper for the Allied Chiefs of Staff Committee, the planners highlighted the critical need to flow sustainment assets through the beaches until securing ports and to also increase resources available for the invasion above original allocations.<sup>42</sup> Many contentious planning debates centered on landing craft, particularly when the British pointed out that the Americans failed to calculate likely landing craft losses and turnaround time between waves, a factor that

dictated the tempo of forces landing on the continent and building combat power.<sup>43</sup> The airborne operations were equally driven by resource constraints in the form of aircraft and gliders, a problem Eisenhower initially described as a need for “such depth of means including trained crews behind the simultaneous lift” for a two-division assault followed by a third division within 24 hours to sustain the attack tempo.<sup>44</sup> This eventually evolved into three simultaneous airborne division assaults, which increased the required depth of aircraft.

### Requirements for Planning in Depth

The Normandy plan highlights the mental characteristics and physical capabilities needed to plan operations for depth. With regards to mental characteristics, planning for depth requires leaders who can effectively exercise and apply operational art to combat operations over extended periods of time and physical distance. This mental ability is a function of education, experience, and training for those leaders required to develop the plans needed to conduct a campaign. This ability is typically resident in a small number of leaders relative to the total officer corps, usually the senior commanders and some of their staff, and is also shaped heavily by doctrine and organizational designs.

Operational art provides a useful framework against which to judge this mental ability. Joint doctrine defines operational art as “the cognitive approach by commanders and staffs—supported by their skill, knowledge, experience, creativity, and judgment—to develop strategies, campaigns, and operations to organize and employ military forces by integrating ends, ways, and means.”<sup>45</sup> Although joint doctrine typically associates operational art with the operational level of war, Army doctrine does not associate the term with a specific level of war or headquarters echelon. The elements of operational art are tools to assist all commanders in understanding the operational environment,

visualizing their operational approach, and ultimately developing their campaigns.<sup>46</sup> Because operational art serves as the intellectual basis of linking tactical actions to strategic objectives, which is the heart and purpose of a campaign, the application of operational art is well-suited to serve as the basis of assessing the intellectual requirements needed to plan for depth.

Because Army doctrine does not associate operational art with any specific level of headquarters, it can be exercised at every level of command; it is a practice, not a location.<sup>47</sup> Practically speaking, the application of operational art is more limited for smaller tactical formations. Some elements of operational art, such as center of gravity, are simply not applicable at the company level since they do not involve translating strategic objectives into tactical actions in time, space, and purpose.<sup>48</sup> Because operational art is primarily intended for planning campaigns, the development of a campaign plan serves as useful point of departure for determining which level of headquarters can be accurately described as applying operational art with the responsibility to plan for depth.

Practical experience since 2001 suggests the need for a headquarters to develop a campaign plan is related to the nature of the operation. Most brigades and some separate battalions routinely developed campaign plans during rotational deployments to Iraq and Afghanistan in order to provide a commander's visualization and direction for combat operations. This is appropriate given the level of autonomy these units had in shaping their operational environment over the course of the deployment. However, the brigades and divisions that invaded Iraq in 2003 did not have overall responsibility for the campaign, which was instead the responsibility of the joint force commander in

concert with the land component commander. This implies that the designation of a “campaigning headquarters” is a function of where the operation falls on the range of military operations and continuum of conflict. A battalion commander deployed to the Sinai for peacekeeping may need a campaign plan just as much as a corps commander serving as a joint functional land component commander during an invasion. Figure 2 depicts this concept graphically.

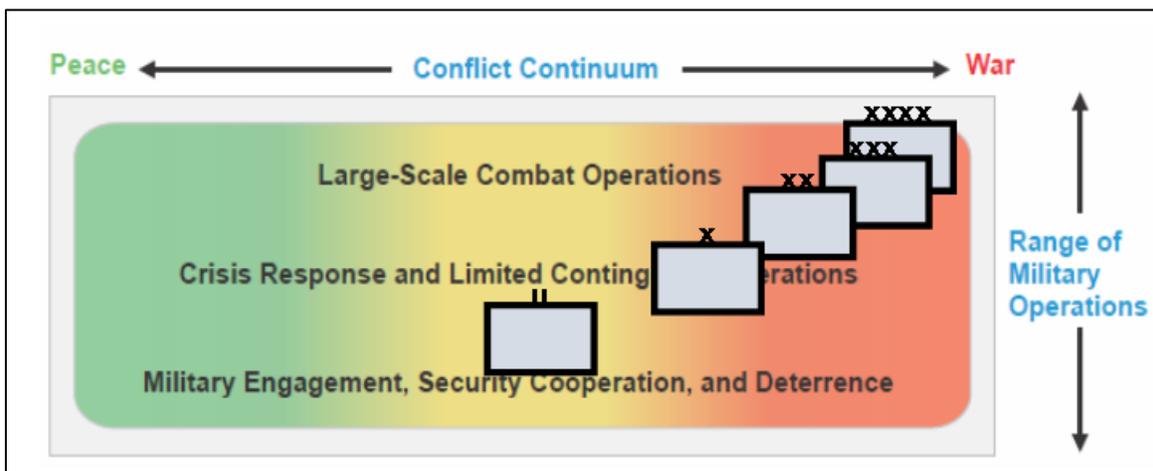


Figure 2. Level of Headquarters Developing Campaign Plans Across Conflict Continuum and Range of Military Options<sup>49</sup>

As the Normandy campaign demonstrates, planning for depth also requires a clear understanding of the menu of physical capabilities, expressed as the force structure required to execute, sustain, and protect a campaign. Assessing the physical capability needs of a campaign requires detailed knowledge of the campaign. This is straightforward for a specific campaign plan but is more challenging when describing depth and campaign quality in general, as the Army asserts in its discussions of campaign quality. Contingency planners exercise operational art in advance of a crisis in order to develop a feasible plan supported by the required troop lists. If a contingency

plan is activated, planners will further exercise operational art as they adjust the plan to fit the specifics of the situation.

Judging the Army's depth of resources is obviously more complicated when divorced from a specific contingency plan. Joint processes try to identify gaps within the existing menu of plans that cover the range of likely contingencies or worst-case scenarios. However, given what a former Secretary of Defense described as the Pentagon's perfect record of never fighting where it plans, it is prudent to look beyond the official menu of numbered operational contingency plans.<sup>50</sup> This suggests a contingency-agnostic approach to determining force structure sufficiency, although it must be obviously informed by reasonable scenarios that may emerge. Joint exercises, planning exercises, and simulations can provide rigor to this activity. The goal is to ensure the force structure is available and aligned with likely mission sets as opposed to known mission sets.<sup>51</sup> In any case, the physical capabilities available for a campaign serve as a constraint on depth.

### Executing in Depth

As with planning, the Normandy Campaign highlights the qualities required to execute operations in depth. Although tempting to view the Allied invasion as a triumph of logistics critical to success, this simplistic view ignores the savage fighting and battlefield dynamics. In spite of all the Allied planners' efforts in coordinating logistics and deception, they still expected to be outnumbered by German divisions after D+1 and remain outnumbered by as much as 20% through the first month of the campaign.<sup>52</sup> This was a best-case scenario if deception efforts held, which became increasingly difficult as time wore on and Patton appeared in Normandy commanding the 3<sup>rd</sup> U.S. Army. The Allies solved this by activating the 12<sup>th</sup> Army Group under General Omar N.

Bradley, transferring to him all units assigned to the fake 1<sup>st</sup> Army Group “except for those specifically excepted” (which was none) and then assigning a new commander, thus maintaining the fiction until the unit was formally dissolved in October 1944.<sup>53</sup>

Supported by the deception plan, success in Normandy was ultimately achieved by an army prepared for fighting in depth with the mental skills and endurance needed to rapidly apply operational art to achieve their objectives.

General Bradley provides an excellent example of the mental skills required to deal with the changing battlefield, a quality critical to Allied depth and campaign quality. Following the airborne landings and beach assaults the Americans quickly found themselves tied up in the Norman hedgerows which provided defenders a series of defensible positions. The terrain also isolated units from mutual support, with a unit unable to communicate with another unit in the next field over.<sup>54</sup> Americans learned to deal with the threat by applying fundamental infantry tactics: fix the enemy forces with direct fires and maneuver to the flanks with an assault force, usually led by tanks.<sup>55</sup> The fighting was exhausting, dangerous, and slow because armor attacks by themselves usually bypassed hidden defenders and left following units vulnerable.<sup>56</sup>

This situation forced Bradley to commit his forces piecemeal until he could no longer balance the risk inherent in building combat power with the opportunity for Germans to improve defenses, combined with higher headquarters’ demands for attacks.<sup>57</sup> After several weeks of limited progress, Bradley developed Operation COBRA, an attack south to break out of the hedgerow country which in turn required him to secure the town of Saint-Lo in order to gain suitable terrain from which to launch the attack.<sup>58</sup> The operation was ultimately successful and demonstrates how combat

leaders think their way through problems. A French historian (who at that time was a staff officer in General Philippe Leclerc's 2<sup>nd</sup> Armored Division) later considered Bradley's decision to launch COBRA a "noteworthy achievement," and an "intelligently seized" chance to regain the initiative.<sup>59</sup>

General Bernard L. Montgomery's struggles in Normandy highlight the consequences when these mental skills are not applied effectively. While the Americans fought through the hedgerows, Montgomery's forces were still attempting to seize the city of Caen, a D-Day objective. Although considerable planning went into the optimistic assault, Montgomery's battle plan did not actually organize his forces to accomplish this objective, which was infeasible once they confirmed the presence of a Panzer division in the area.<sup>60</sup> Some historians are divided on whether Montgomery actually wanted to seize the city or had considered alternative plans, particularly given the bombing raids he requested that made streets impassible and created a terrain that favored the defenders.<sup>61</sup> At considerable cost of lives, Caen did not fall until D+32 (July 8), and the British were increasingly unable to replace these lives as their depth of personnel resources dwindled.<sup>62</sup> Montgomery later said the battle went entirely according to plan and that the difficulties were due to other factors, a claim that enraged both the Americans and the Royal Air Force whom he implicated as responsible.<sup>63</sup> If the battle unfolded as he planned, it was a costly plan that should have been either adapted or discarded.

Normandy operations also highlight the need for endurance at the unit level. Allied forces incurred heavy losses in the hedgerow operations and battle for Caen. American infantry companies often had less than 100 soldiers after a week of combat,

with incredible losses among company grade officers; one regiment that landed after D-Day only had four lieutenants by the third week of July.<sup>64</sup> One tank battalion was deemed combat ineffective after a single week of fighting due to personnel losses.<sup>65</sup> British infantry casualties following D-Day were nearly 80% higher than anticipated, and they had a much smaller pool of replacements.<sup>66</sup> In addition to casualties, some veteran British units who had fought in North Africa performed poorly in Normandy, an embarrassing fact attributed to a war-weary British army that was increasingly risk-averse and hesitated to seize opportunities in battle.<sup>67</sup> This situation could have seriously eroded the Allied staying power if the Americans had been unable to keep bringing new units into the theater. Interestingly enough, the *Wehrmacht* provides an example of how units with high endurance and resilience could make up for an inability to restore losses. The Allies found the regular German units to have “staying power,” and the paratroopers and SS units “were a breed apart” who possessed “an unshakeable morale.”<sup>68</sup> German tenacity was more remarkable because these units were not fully manned, equipped, or trained once the top-line formations were allocated to the Eastern Front after 1942.<sup>69</sup>

### Requirements for Executing in Depth

As Normandy demonstrates, executing operations in depth requires a mix of mental and physical attributes. These are the mental skills needed by those individuals leading combat operations, the mental toughness of all soldiers to endure hardship and the physical quality of endurance within units. The mental skills of leading combat operations are closely related to the previously described mental skills required to plan operations, which leads to the reasonable counter argument that these are just plans immediately executed and therefore redundant. Although they are similar skill sets, the

ability to do this in real-time execution distinguishes it from the same ability during deliberate planning: not all great planners are great commanders in combat, and vice versa. These skills are a function of education, experience, and training.

The second quality required for Army forces executing operations in depth is the individual ability to endure and recover from the physical deprivations and hardships associated with combat operations. This quality is called resilience in Army leadership doctrine.<sup>70</sup> Warfare of every age provides countless examples of resilient soldiers able to endure the most demanding conditions and impossible odds. It seems intuitively obvious that this quality contributes the staying power that enables the Army to conduct extended campaigns. This endurance and resilience is largely a function of unit leadership and training. Although leadership doctrine shapes the skills of small unit leaders, the leader's personal application of leadership rooted in experience and training during a crisis is decisive. Army leadership doctrine provides a detailed discussion of this phenomenon.

Just as soldier resilience contributes to depth, units themselves have a quality of physical endurance, the third factor that contributes to the Army's ability to execute in depth. This quality is a function of unit design, leadership, and training. The German units resisting the Allies in France demonstrated this quality. It is also supported by the sustainment a unit receives through the course of combat operations, because even the best unit cannot operate for long without additional resources. In some cases, additional resources can be another unit to replace one severely depleted by combat. The Allies rarely kept their units in continuous combat during Normandy, choosing instead to rotate in a new unit whenever a force was no longer capable of fighting due to losses.

Because Army units capture many of the qualities needed to execute operations in depth through readiness ratings submitted monthly, this requires a brief discussion of readiness reporting. The Army measures readiness through the categories of training, personnel manning, equipment resourcing, and equipment readiness.<sup>71</sup> Units compute training readiness through a complicated objective assessment of executed training against established standards. Personnel readiness is based on overall manning levels in accordance with organizational documents to ensure sufficient assigned soldiers along with the correct mix of leadership and functional specialties needed to execute the unit's mission. Supply readiness uses a similar approach and is measured against equipping documents specific to each unit. Equipment readiness is computed by the percentage of critical equipment that is operational within the given month.

Readiness reporting provides the most comprehensive assessment of a unit's ability to execute its assigned mission, with two important caveats. The first caveat is related to the assumptions of the combat developments process. In every case, unit readiness is measured against standards created during the unit design process collectively referred to as combat developments. Therefore, when leaders speak of mission readiness, they mean readiness against a standard mission set that drives training with a specific organizational and equipment design. The implicit assumption is that these standards are correctly aligned with the most likely mission sets and operational conditions. Units assigned to missions not considered in the combat development process may find themselves at a disadvantage if their training, organizational design, and equipping are insufficient for the mission at hand. The need for mine resistant vehicles in Iraq is one vivid example of this phenomenon. Units can

receive different equipment, train for different missions, and adjust the internal organization, but these are limited by time and resources available, especially for personnel. In these situations, the standardized readiness reporting metrics are less useful in assessing specific readiness for the specific mission at hand. While the combat developments process cannot account for every situation a unit may face, the process must ensure the scenarios used to frame unit development match what is expected at the high end of combat operations during an extended campaign. Planners cannot automatically assume each unit in the Army inventory is designed against a scenario involving an extended campaign over time and distance, because some capabilities are now optimized for counterinsurgency framework. As an example, the Army has eliminated significant numbers of logistics units based on the assumption of robust contractor-based logistics, a feasible solution during the Iraq occupation but not during the preceding invasion.<sup>72</sup>

This leads to the second caveat with using readiness metrics to assess physical campaign qualities, which is the link between measured training readiness and campaigns. In other words, does the training measured match the training needed to conduct a campaign? One way to demonstrate this is to compare the training tasks for a division and corps against a hypothetical campaign. According to the standardized Department of the Army Mission Essential Task Lists (METL), divisions train against six tasks: conduct force projection, conduct forcible entry operations, conduct movement to contact, conduct an attack, conduct a defense, and conduct area security.<sup>73</sup> Although each of these tasks contributes to a division's ability to execute a campaign, the standardized METL lacks any tasks directly related to campaigning. Some elements of

campaigning, such as coordinating logistics and protection, are included as supporting tasks for some of the individual Mission Essential Tasks. However, supporting tasks are only meant to inform the training plans for the primary METL tasks and are not specifically measured for readiness.<sup>74</sup> This does not necessarily mean the unit could not train to execute campaigns, as long as the training scenario used to establish the training readiness assessment is constructed as an extended campaign, but it does mean that training assessments are not inherently geared towards campaigns.

An additional complicating factor is the training methods used by larger echelon units. While brigades and battalions can achieve high levels of training readiness through practical field exercises where forces conduct operations in real-world conditions and thereby directly measure all three qualities needed to execute in depth, larger units like corps and divisions execute their large-scale exercises in simulated environments supported by command posts in the field. This practical adaptation to the inherent difficulties and expense of placing large units in the field against a live opposing force comes at the cost of testing all aspects of soldier resilience and unit endurance.

### Implications

Describing depth as the operationalization of campaign quality leads to several important implications for Army leadership. First, it is important to realize that critical components of campaign quality are established in the initial unit design and then sustained, not exclusively something that units do during training and operations. This leads directly to the second major implication that the combat developments process is critically important in building a force for depth. This process creates the capabilities employed by commanders and defines their limitations. The combat developments

process embeds assumptions into a unit's design that serve as constraints on how a unit can operate without assistance. These assumptions also serve as the foundation by which the Army measures unit readiness by creating the "grade sheets" used to judge whether they have the correct training, personnel, and equipment. This runs the risk of measuring performance instead of measuring effectiveness.

The third implication is that a campaign quality Army prepared to plan and execute operations in depth is built long before it is employed and is greater than any one unit. Both the mental characteristics and one physical quality are functions of education, leadership, experience, and training (see Figure 1). These take considerable time to develop, a factor sometimes taken for granted by those outside the military, particularly in regard to the need to accumulate skills and judgment through education and repeated training. Collective skills that are lost in the Army are not easily recovered, a fact demonstrated by the current struggles to rebuild division-level artillery and sustainment organizations. The Army reestablished the division artillery headquarters in 2014 to supervise field artillery training and coordinate massed fires, citing a serious atrophy in these skills after 12 years of decentralized operations.<sup>75</sup> In 2015 the Army placed sustainment brigades underneath a division headquarters in order to maximize unit cohesion and effectiveness.<sup>76</sup> Time will tell if these efforts are successful, but they support the idea that institutional knowledge on executing collective tasks is ephemeral and costly in time and resources if lost.

The fourth implication is that capabilities and quantities matter. Although the United States has executed sustained combat operations since 2001, these have not generated the casualty rates or required the number of units expected in the wars to

come. General Milley expects future wars to be longer and more lethal than anything seen by today's generation of soldiers.<sup>77</sup> This estimate drives the need to expect higher combat losses rates than currently exercised in wargames. One useful question, if faced by World War II casualty levels, is what happens the first time the Army has to replace a unit rendered combat ineffective due to combat losses? How will the Army maintain depth when endurance is the key measure of campaign quality?

### Conclusion

One potential criticism with the proposed approach to campaign quality and depth is that it duplicates existing concepts such as preparedness. Preparedness describes “those actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from threats to national security interests.”<sup>78</sup> While there is certainly some overlap between this concept and the physical qualities of campaign quality based on depth, they remain distinct ideas. Whereas preparedness describes a national-level ability to employ the Army when needed, campaign quality describes how well an Army can be used when it is employed. By linking the concept of campaign quality to the expanded operational tenet of depth, it focuses on the requirements for planning and executing operations in a way that provides depth. This distinction also requires a better definition of depth.

The current definition of depth in Army doctrine is insufficient and requires revision in line with earlier versions, such as the definition in the 2001 version of the Army's capstone operations manual. Not only does this align current doctrine with historical doctrine, but it also aligns Army doctrine with the historical record and fills a considerable gap. If depth does not include the depth of resources and staying power,

Army leaders are missing a key consideration in planning and executing high intensity combat operations. Depth extends in both directions for both opponents.

Campaign quality linked to an expanded definition of depth can also serve as a useful addition or refinement to readiness reporting. Developing this into concrete metrics requires answers for three important questions. First, how does a unit assess mental qualities at all levels? While this is partially measured in training, these scenarios rarely exercise the full range of activities between home station and the tactical assembly areas. While units physically deploying to a training center practice many of these skills through their movement activities, division and corps headquarters do not typically deploy themselves or their subordinate units for exercises or practice the challenging task of receiving and building combat power in theater, much less in a contested environment. Since building these mental abilities begins during formal officer education, the answer to this question should also inform reforms to improve officers' ability to understand the depth component of operational art.

Secondly, does the current unit status report fully capture the qualities needed to execute an extended campaign? The assumptions of the combat developments process are intertwined with the existing metrics. The Army should assess the conditions that each unit is designed around to see if it is consistent with the Army leadership's vision of future combat. This is no small task, given the diversity of units and distributed nature of developments at separate Centers of Excellence. At a minimum, a gap analysis that identifies the differences between the scenarios currently used and the high-end scenarios envisioned by General Milley is required.

Finally, how does Army leadership assess the sufficiency of capabilities? This is no small task, given the extensive modeling that supports the annual Total Army Analysis (TAA) process. The Army has assumed considerable risk in many capabilities required to ensure the friendly dimensions depth, particularly in protection and sustainment capabilities. The Army's deputy chief of staff for logistics testified to Congress in 2017 that the Army has significant munitions risks and would struggle to resource a major contingency with sufficient ammunition or other ordnance.<sup>79</sup> The National Commission on the Future of the Army expressed significant concerns with Army logistics, to include fuel distribution, water purification, watercraft, port opening capabilities, and overall transportation capacity to meet war plan needs.<sup>80</sup> The Commission also assessed significant shortfalls in aviation survivability and other unit protection capabilities, to include short range air defense, field artillery, and chemical, biological, radiological, and nuclear response units across a wide range of potential contingencies.<sup>81</sup> While some of these capabilities reside in the reserve component, reliance on reserve units builds potential escalation into contingency scenarios requiring their use because mobilization is also a political signal to adversaries.

By answering these three questions the Army can make the notion of campaign quality more than just an aspirational claim. Although it is not precisely defined or rooted in doctrine, it conveys an important idea that goes beyond current methods of determining whether the Army is prepared to conduct major combat operations. Given the return of great power competition and the actions of rogue states committed to changing the rules-based international order led by the United States, a campaign-quality Army is a critical national need. This idea must be rooted in the operational tenet

of depth. Campaign quality is the desired goal, while depth describes what forces need to have and what they need to be able to achieve.

## Endnotes

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