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# Joint Paths to the Future Force

A Report on Unified Quest 2004

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## Summary

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An overarching assessment of Unified Quest 2004 (UQ 04) shows that it clearly met its objectives, largely because of the environment within which it took place. It was notable for its professionalism, candor, and objectivity. The open environment at UQ 04 enabled participants to grapple with the difficult issues raised during the wargame and to pose constructive challenges to evolving joint and Service concepts when the concepts proved inadequate to deal with those issues. In short, the wargame met its charter of testing concepts to failure by asking the right questions and going where the evidence led. Consequently, evolving joint and Service concepts will be strengthened if the insights from UQ 04 inform their development.

### Pre-Game Activities

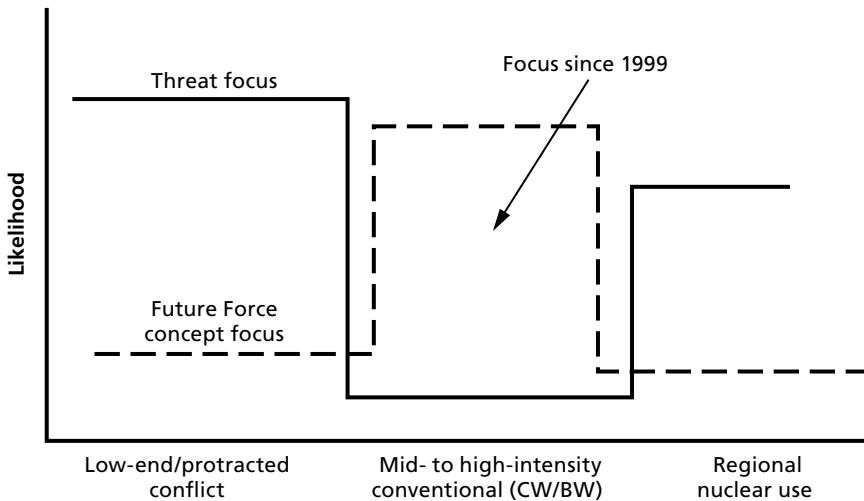
A wargame succeeds or fails depending on the questions it poses. A strength of UQ 04 was the preparatory activities that helped define the main issues for investigation. The central study question reflected a consensus among game designers that insights gained from Unified Quest 2003 (UQ 03) required a rethinking of the conceptual premises that were going to be assessed in UQ 04. The question evolved from an insight from UQ 03 that “Blue’s overwhelming conventional strength may change Red’s investments, options, and strategy.” During UQ 03, it became clear that Red forces in both theaters realized they could not defeat Blue’s conventional military capability. Thus, a

key insight was that “the tactical and operational fight in the future could be much different than currently envisioned.” UQ 03 participants realized that future adversaries might resort to nuclear weapons to compensate for their conventional inferiority.

The first Future Warfare Seminar (one of two that preceded the game) examined this issue of conceptual discontinuities between U.S. forces and potential adversaries and developed the graphic in Figure S.1.

Figure S.1 depicts the notion that U.S. military forces have focused on developing concepts that address mid- to high-intensity conflict. UQ 03, as well as the “post-conflict” phases of ongoing operations in Afghanistan and Iraq, has made it clear that the successful execution of major combat operations—which overwhelming U.S. conventional capability almost guarantees—does not necessarily spell victory. It logically follows, then, that concepts explored in wargames focused primarily on mid- to high-intensity conventional combat op-

**Figure S.1**  
**The Adaptive Threat and Concept Development**



erations would lack the fidelity to be suitable for dealing with operations on the opposite ends of the spectrum. In short, these potentially difficult operations are not lesser-included cases for what is supposed to be a full-spectrum force. Consequently, the low end of the conflict spectrum, in particular, requires a rigorous review and perhaps a new, more expansive theory of conflict and supporting operational concepts.

## **Game Scenario and Objective**

UQ 04 was an extension of UQ 03, in which a U.S.-led coalition engaged in two overlapping major combat operations, one in Southwest Asia (Nair) and one in the Southeast Asia (Sumesia) in 2015. UQ 04 began with what Blue believed was the culmination of major combat operations in both theaters and the beginning of the transition to post-conflict operations. In Southwest Asia, the coalition sought to secure the nuclear arsenal and associated infrastructure, defeat remaining military and paramilitary forces, install a new regime, and stabilize the country. In Southeast Asia, the goal was to defeat the ongoing insurgency and to restore control of the country to the government. In reality, however, Red retained significant conventional and unconventional military capabilities in both Nair and Sumesia. In Nair, Blue believed that it was in a transition from major combat operations to post-conflict operations. In reality, Red had dispersed its conventional and paramilitary capabilities in a coherent territorial defense and was waiting for the right opportunity to launch counter-offensives against Blue. In Sumesia, Red retained the capability to conduct irregular warfare in an insurgency. Therefore, the conditions for post-conflict operations were not attained in UQ 04.

The central study question for the wargame focused on identifying the concepts and capabilities required to counteract an adversary who, having lost most of his conventional capability, seeks victory through a combination of protracted, unconventional operations and use of weapons of mass destruction (WMD). Game designers posed the following analysis question: “How does the joint force

conduct and sustain simultaneous distributed maneuvers in a non-contiguous battlespace?”

## Issues and Insights from UQ 04

UQ 04 also addressed a broad range of study issues and essential elements of analysis grouped under five areas. RAND data-collection and analytical efforts focused on capturing high-level issues and insights in these five areas.

### 1. Joint Command and Control

These issues center on synchronization: How do joint, interagency, and multinational forces synchronize their objectives, their efforts to achieve these objectives, and their forces (fire and maneuver) in non-contiguous operations?

**Sumesia.** Important issues in this context involved the form that command and control (C2) arrangements might take in transitioning from coalition to indigenous government control. These were largely reporting issues involving when command of the Combined Joint Task Force (CJTF) should shift from “being supported” to “supporting.” One interesting definition of the desired end-state put forward in this connection was that it has been achieved when CJTF hands the command of all forces in Sumesia back to CJFSOCC (Combined Joint Force Special Operations Component Commander, i.e., the commander of Special Operations Forces), which was where command resided before the conflict escalated.

**Nair.** The C2 issues involved in conducting coalition operations, urban operations, and logistics support of a theater that had six widely dispersed lines of operation were the subject of numerous player discussions. Nevertheless, UQ 04 did not have sufficient resolution, certainly for the Blue strategic/operational group, to explore these C2 issues at other than a subjective, nontechnical level. These technical issues are not trivial, and the C2 insights from the game should serve as the basis for more in-depth post-game analyses.



## 2. Battlespace Awareness

The issues here focus on information requirements; in particular, how the joint force reacts to unexpected situations and identifies, assesses, and mitigates risks associated with a lack of information.

**Sumesia.** Information sharing with country teams and coalition forces was convoluted. Separate networks for information sharing and fusion had to be established in every case. In 2016 satellite coverage will be robust, but information sharing probably will not be, because solutions to the problem of exchanging data across the various institutional and organizational stovepipes that exist today seem less likely to be forthcoming. Technology for data collection may improve, but management systems for dealing with it may not keep pace.

The operational result of poor battlefield awareness was the Blue Team's total surprise at Red's counteroffense against Blue's military campaign. The Red counterattack revealed a serious misapprehension—a lack of battlefield awareness—by Blue of what insurgents in Sumesia still had available to wage war.

The high-level issue is how to satisfy the need for battlespace awareness when confronting an insurgency (or, for that matter, more conventional warfare) and how to communicate awareness to everyone who needs to know. The information required in this case is harder to come by, because adversaries that assume an irregular form are more difficult to understand and track than conventional military forces.

**Nair.** Blue had major problems gaining sufficient battlespace awareness. It became apparent that the Blue intelligence collection cell was focused solely on the allocation of surveillance assets to support the lines of advance into Nair. Thus, there was an inordinate focus on the collection and data transmission phases of the intelligence cycle. There appeared to be little appreciation that the most serious roadblock was turning the terabits of data into useable information. To compensate for the inadequacies of standoff surveillance, the intelligence cell deployed a robust array of human intelligence assets, specifically special operations units. The issue of scale and coverage by these units was acknowledged as a serious challenge, especially during the evolving siege of Nair's capital.

### 3. Force Application

The issues here involve how joint (and presumably coalition) forces conduct shaping operations, achieve joint effects, engage in and sustain simultaneous distributed maneuvers in a non-contiguous battlespace, execute major combat and stability operations in transition or simultaneously, and operate in urban terrain.

**Sumesia.** The Blue Force found itself overextended both operationally and logistically, conducting distributed, non-contiguous operations in five areas of responsibility within a very large country. One approach to mitigating this problem was to use the country's internal boundaries as operating boundaries for coalition forces and to coordinate coalition activities by establishing the Sumesia Coordination Council.

Trouble started with the last turn of the exercise when the insurgents struck across a broad, non-contiguous front. Problems of transition from major combat operations to stability and support operations suddenly became acute. When the insurgents struck back unconventionally and in force during the last game turn, Blue faced unexpected problems. Instead of transitioning from major combat operations to relatively straightforward stability and support operations, which it could look forward to handing off as soon as possible to the Sumesian government, Blue now faced a major insurgency requiring the application of additional force by the full coalition. In short, a much longer, more problematical security situation that precluded the transition expected by Blue. The key point here, and in Nair as well, is this: Unless destroyed outright, the enemy, not we, decides when conflict ends and transition begins.

The big issue in this context is how, when, and where to apply force against an insurgency that has faded, perhaps temporarily, from a once-prominent conventional threat into a degraded but persistent asymmetric threat drawing strength from a rural base in the countryside. Also, what is the proper force mix to apply against such a threat?

**Nair.** One of the most important insights to emerge from Blue's exercise experience was the revelation that there are few, if any, credible "combat" measures of effectiveness for counterinsurgency, urban combat, or stabilization operations. How to determine whether one

was winning or losing remained an unanswered qualitative or quantitative question. The analytical community faces a major challenge in developing viable measures of effectiveness in these areas.

#### **4. Focused Logistics**

The insight here concerns seabasing and how it might affect deployment, employment, and sustainment of joint forces.

**Sumesia.** A logistician's nightmare, Sumesia involves a variety of coalition forces operating in jungle terrain. Ground lines of communication (LOCs) are long and vulnerable. Insurgents regularly interdict them. Seabasing, despite several significant limitations, appears to provide a promising alternative, especially as a way of dealing with resupply issues made more difficult by the insurgents' targeting of ground supply routes. Potentially, seabasing can also provide secure platforms for the initial deployment and subsequent maneuvering of coalition forces as well as for the treatment of casualties. Medical care, in particular, seems to lend itself to a sea-based solution in this largely maritime theater.

The high-level issue in focused logistics, as it relates to Sumesia, is how much seabasing is enough to balance the Blue force's risk and improve the overall security of its LOCs for deployment, maneuver, and resupply—and how much ashore capability can it supplant in protracted operations that require considerable ground operations. Secure land bases and sea ports will still be required to handle the throughput of coalition logistics and other (e.g., deployment, maneuver) operations. But seabasing makes it possible to reduce, if not entirely eliminate, the logistics footprint on land. Like a good portfolio strategy for the stock market, seabasing hedges a joint/coalition force's bets by distributing them across a variety of options. Loss of one asset, therefore, does not trigger catastrophic failure.

**Nair.** The Blue logistics cells acknowledged that the support system for the six lines of advance (which also created significant operational issues) into Nair was overstretched. A key vulnerability for the theater logistic system was the very long multiple land LOCs that were constantly interdicted. One tactical commander of a line of advance acknowledged that 50 percent of his combat forces were tied

up in LOC security operations. Thus the interest in the Joint Precision Air Drop System technology as a partial answer to this problem is unsurprising. Several logistics players believed wide-body aircraft using precision airdrop systems from medium altitude warranted further consideration.

One underplayed aspect was the consequences of managing very large refugee and enemy prisoners of war populations. Played more accurately, requirements to deal with these populations would probably have significantly increased logistical requirements, required more forces to control and secure them, and placed further demands on the LOCs.

## **5. Force Protection**

These issues center on LOC control and protection during operations. Theater air and missile defenses are also involved, as is the U.S. Navy's Sea Shield.

**Sumesia.** Once the conflict shifted from conventional war to unconventional insurgency, Red focused on Blue's logistics and its LOCs as a key vulnerability, and it started to attack them as a matter of priority. This forced Blue to secure its LOCs. Considerable numbers of coalition forces had to be dedicated to protecting Blue's ground and riverine LOCs, which were extensive. Elsewhere, Blue appeared to provide fairly seamless theater air and missile defense protection. Red's ground-based, passive air defense systems (guns and man portable air defense systems), however, proved a challenge, as they do today, to low-altitude Blue air operations.

The key issue in this area involves the size of the total force that joint and coalition partners need to plan on fielding in cases such as Sumesia. When a conventional conflict morphs into an irregular warfare, as in this case, interior lines of communication can be placed in jeopardy. Sufficient forces have to be dedicated to removing such risks and providing security—and the number of those forces can be considerable when long LOCs and significant geographical areas are involved.

**Nair.** As noted above, force protection for the LOCs supporting six lines of advance was a major challenge and consumed a significant

portion of the combat power of each line of advance. The game ended before there was a decision to conduct an all-out assault on the capital. But several participants acknowledged that such a fight would have taken substantial resources, especially combat units, that would likely have to be taken away from some other line of advance. Such a reallocation of forces would have created additional force protection issues on the lines of advance where these forces were drawn from, given the reality that there were no surplus coalition forces in the theater. Finally, Red viewed the weakening of coalition forces along a given line of advance as an opportunity to conduct a counteroffensive.

## **Recommendations for Improving the Future Warfare Studies Program**

Perhaps the most important recommendation is that offered by Army Chief of Staff General Peter Schoomaker. He noted that knowing now how the plans posited in UQ 03 played out in UQ 04, the Army should design a campaign that incorporates the lessons from both events. In short, knowing the outcomes of UQ 04, how should the Army redesign the campaign plan to achieve the desired end-states?

One of the key points brought up in UQ 04 was a necessary change in conceptual approach. The game employed a sequential approach: major combat operations followed by stability operations. This approach proved problematic when joint concepts focusing on major combat operations had trouble in dealing with an enemy that, although perceived by Blue as largely defeated as forces in the field, was able to continue the conflict through protracted unconventional operations and with the lingering threat of employing WMD to buttress its efforts. Furthermore, the Blue assessment of Red in both theaters, i.e., that it had been “largely defeated as forces in the field,” was inaccurate. Red, particularly in Nair, had dispersed its conventional and paramilitary forces in the face of overwhelming Blue air, command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), and conventional capability.

The Red commander thus retained a significant military capability to continue what he viewed as an integrated defense of Nair and to conduct counteroffensives against Blue. This reality argues that joint and Service future warfare concepts must be grounded in a campaign approach whose goal is a political end-state. And this political end-state can be attained only through the defeat or capitulation of Red military and paramilitary forces, which itself can be achieved only if one thoroughly understands the adversary, his intentions, and what constitutes defeat in his eyes. This military condition was never met in Nair or Sumesia. Consequently, the strategic political end-state was never achieved, nor were the challenges to achieving it fully understood by Blue.

UQ 04 also raised several significant issues that should be included in the studies program, including: nuclear weapons; urban operations in mega-cities; unconventional counterinsurgency and counterpartisan operations; joint, interagency, multinational, and nongovernmental coordination; doctrinal dilemmas; and assessing technical assumptions.

This last area warrants some additional discussion. In UQ 04, as in the games that preceded it, many technology-based capabilities were required to realize operational concepts. Frequently, however, these technological enablers, regardless of operational conditions, were employed with little thought to their potential limitations in those conditions. This was particularly true with regard to C4ISR technologies that directly enable joint C2 and battlespace awareness and also affect force application, focused logistics, and force protection. The implications of a broad range of C4ISR technological assumptions are critical to the resolution of most UQ 04 study issues and fundamental to the realization of the concepts for the Future Force, but they are rarely a focus of specific analysis in and of themselves. In short, it is perhaps time to begin analyzing the technical assumptions (and operational assumptions) embedded in Future Force concepts so that we can begin to understand what inherent limitations might exist in diverse operational environments and to suggest alternatives to address any identified gaps.

This study also makes recommendations for improving the analytical methodology of the Future Warfare studies program. It suggests ways to reframe relevant study issues and essential elements of analysis. It further recommends improving the Future Warfare studies program's analytical process by conducting, apart from the annual wargame, tightly focused seminars or exercises that investigate a single emerging insight or area requiring increased analytical effort. The results of these investigations could then be fed back into the concept and force development processes that culminate in the wargame.